On the Placement of the Reflexive/ Reciprocal Marker –*si*- in Lithuanian Verbs

Dėl lietuvių kalbos veiksmažodžių sangrąžos dalelytės -*si* pozicijos

LINGUISTICS / KALBOTYRA

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Abstract

Set within the generative syntactic tradition, the present article examines the interchange in the layout of the reflexive/ reciprocal marker (RM) and the verb in prefixed and prefixless Lithuanian verbs, a long-standing historical puzzle. It is first shown that the RM is obligatorily coreferential with the subject of the sentence. Given the generative premise that all subjects are merged within the verb, it is argued that the RM is a physically manifest trace of the subject and forms a binding domain with its antecedent, which stipulates the layout of morphemes within the verb. In addition, the position of the RM also depends on whether its antecedent is an agent, experiencer, or theme, since these have different merging, i.e. original, positions. After the relationship between the RM, the sentence subject and the verb has been defined, prefixes are examined since they form the left boundary of the RM in prefixed verbs. Given their resultative meaning, verbal prefixes are argued to occupy an aspectual position AspP, placed immediately above the verbal complex, i.e. v/VP and the RM within it. Since in non-contrastive contexts, the negative clitic is attached to the verb and consequently affects the position of the RM in otherwise prefixless verbs, inducing change just as the resultative prefixes, the binding domain is determined for the following types of the morphological composition of the verb: prefixed and non-prefixed positive and negative verb forms.

KEY WORDS: reflexive verbs, reflexivity, reflexive marker, binding, binding domain, Binding Condition A, generative syntax.

Introduction

As is known, Lithuanian reflexive and reciprocal verbs have a peculiar rule regulating the placement of the reflexive/ reciprocal marker (hereinafter referred to as RM) -*s(i)(-)*: in prefixless verbs, the RM is placed word-finally, following verbal tense and agreement morphology; in prefixed verbs, the RM is placed between the prefix and the verb. The ample research devoted to the RM in Lithuanian has focused on the historical development of the RM, development of new grammatical forms involving the RM, its dialectal usage with respect to the verb, stress patterns as well as present-day meanings or functions (e.g., Ambrazas, 2006; Bernadišienė, 1961; Geniušienė, 2007; Jakulienė, 1967, 1968a, 1968b, 1969; Jonikas, 1952; Kazlauskas, 1968; Klimas, 1985, 1991; Michelini, 1980; Paulauskienė, 2001; Paulauskienė&Miliūnaitė, 2009; Zinkevičius, 1996). In the historical accounts of reflexivity, both forms appearing si-

multaneously as preceding and following the verb, are attested; however, in the present-day discourse, the question as to which position is to be regarded as basic within the verb, has not received a definitive answer (Jakulienė, 1968a, 1969; Zinkevičius, 1996).

Korostenskienė (2014) attempted to identify the position of the RM employing the framework of Distributive Morphology, as developed by Embick and Noyer (2005), suggesting the following account:

The middle/ reflexive -si- immediately follows the left-most affixal material (Korostenskienė, 2014, p.66).

This rule, however, cannot explain the reasons standing behind the repositioning of the RM that takes place depending on the morphological composition of the verb. It also remains unclear what the base position of the RM is.

Employing Ramchand's (2008) analysis of argument structure as a hierarchy in the order Agent-Undergoer-Resultee, Korostenskienė further shows that semantically, depending on the type of the argument, the RM assumes the roles of the Undergoer and/ or the Resultee, thereby prohibiting the appearance of competing arguments in the sentence.

The subject of this article is the intricate relationship between the verb and the RM. Set within the framework of the generative syntactic theory, more specifically, versions of X-bar theory and the minimalist approach, the article offers an account for the position of the RM within the verb. Given the generally agreed-upon status of Lithuanian as a free word-order language and the assumption that the morphological structure of the word is indicative of the syntactic structure of the clause, the intricate behaviour of the RM presents an interesting domain both in its own right as well as in defining phrase/ constituent composition in Lithuanian in general.

The article is structured as follows. First, the core theoretical framework will be discussed: the notion of c-command, the binding domain and Binding Condition A, the latter notion originating from Chomsky's (1981) Government and Binding Theory. Then the facts essential for the analysis of the RM will be summarised. While agentive verbs will form the basis for discussion, in later sections it will be shown how the proposed approach can account for other types of arguments as well. The analysis will also incorporate earlier findings regarding the generative representation of Lithuanian verbal morphology. These premises will be used in the identification of the position of the RM on the syntactic tree relative to the rest of the verb in both prefixed and prefixless verbs. The conclusions summarise the results.

Structure and Processes on the Syntactic Tree

The fundamental notion of the generative syntactic tradition in general and the minimalist approach in particular is that the diversity of linguistic manifestations in each particular language can be accounted for through a system of recursive *Merge* and *Move* operations (Chomsky, 1999), the function of which is respectively to generate and replace, if needed, a given syntactic element. In addition, the minimalist approach "is motivated by the search not only for explanatory adequacy but also for a certain level of formal simplicity and elegance" (Carnie, 2013, p.392); which is ensured by a number of principles, or conditions, the ones that bear relevance for the present analysis being as follows:

1) Chain Uniformity Condition

   "A chain is (only well-formed if every copy in it is) uniform with regard to phrase structure status" (Radford, 2009, p.127).

2) Minimal Link Condition (simplified)

   "Move to the closest potential landing site" (Carnie, 2013, p.384).

Core
Principles of
Generative
Syntactic
Analysis

Syntactic elements stand in a hierarchical binary relationship with respect to each other and each has a hierarchically organised binary structure of its own. The elements may be of two kinds: they may be lexical items, such as parts of speech, and functional items denoting grammatical relationship, such as tense and agreement. All syntactic elements form heads and are confined in their respective phrases; hence a noun is a head in the Noun Phrase. While the head is an obligatory physically manifest element in the phrase, each phrase has a specifier and a complement, which are optionally filled. Below is a schematic phrase structure rule of how any phrase is constructed and a respective tree featuring the hierarchical layout:

(1) XP → Specifier X'

X'→X∘Complement

(2)
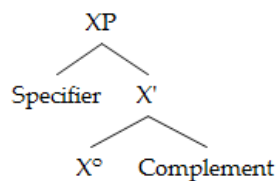
The node XP is referred to as the maximal projection; the X' node is referred to as the intermediate projection, while the non-branching nodes are referred to as terminal nodes. Again, only the head is obligatorily filled. If the head has a complement, it necessarily is a phrase. Consequently, the system accounts for all morphologically and syntactically manifest language elements. More recently, the notion of overt/ covert movement was added to bring in uniformity the striking language diversity and to disallow too many exceptions to the standard approach. Overt movement would imply that the evidence of movement is physically manifest; covert movement implies that the movement was a post-syntactic operation, i.e., it takes place after the syntactic structure has been formed and "phonetically realized" (Kayne, 1998, p.129).

As all nodes build up a hierarchically arranged syntactic tree, they reflect constituent relationships. The highest node (Root Node) in the clausal tree is the Complementiser Phrase *CP*. CP accounts for all types of clauses: finite and non-finite, primary and secondary; its head can be null or have physical manifestation, e.g. *that*, *if*, depending on the rtype of the clause. An affirmative simple sentence therefore will consist of one clause and have a zero complementiser (marked as Ø). The CP node branches into the subject and the predicate, designated as the Determiner Phrase (*DP*) and the Tense Phrase (*TP*) respectively. The Tense Phrase contains the grammatically relevant information and stores auxiliaries, modals and, in the case of English, the indefinite particle *to*. In the so called null subject languages, i.e. those that allow omitting the subject, such as Italian, Spanish, and consequently, Lithuanian, the subject Determiner Phrase DP may be represented by an empty category marked as *pro* and referred to as the "little pro" as opposed to the PRO ("big pro") category which is the implied subject in the non-finite embedded clauses. The sentence below illustrates this phenomenon for infinitival embedded clauses in Lithuanian:

(3) *Direktorius$_j$*   *prašo*   *mokinį$_i$*   *pasi$_i$aiškinti.*

Director.NOM.SG.M   ask.3.PRS   pupil.ACC.SG.M   pref-si-explain.INF

"The Director asks the pupil to explain herself".

The structure of this sentence is given below:

    (4) [TP *Direktorius* [vP [VP *prašo* [DP *mokinį*$_i$ [PRO *pasi,aiškinti*]]]]].

Since in the present study the verb group is of most immediate concern, it will be presented in greater detail. The verb phrase is analysed into the *little v* phrase vP and the *lexical verb* phrase VP; the former is distinguished only for agentive verbs and may sometimes be lexically realized, e.g., through a causative affix (Kratzer, 1996), otherwise remaining an empty head which becomes a transitory stage for the lexical verb in movement operations (Carnie, 2013). As is known, verbs are perceived as having certain valency, i.e. ability to combine with a certain number of nouns, or arguments. Within the generative tradition, this notion has been reformulated to suggest that each verb takes a particular number of arguments and that all the arguments the verb can take are merged within its structure, which came to be known as the *VP-internal subject hypothesis*. In other words, whether it be the subject, or the (in)direct object argument, they all are to be generated within the verb. With the verbal complex divided into vP and VP, spec-vP position has been shown to be the position for merging agentive external arguments, i.e. agentive subjects (Kratzer, 1996). Non-agentive arguments, such as experiencers and themes, are merged in the verb phrase VP. The current treatment assumes the approach proposed by Basilico (1998), following which the merging positions of experiencer arguments and themes are spec-VP and VP-comp respectively. The overall representation of the merging positions for arguments is given below:
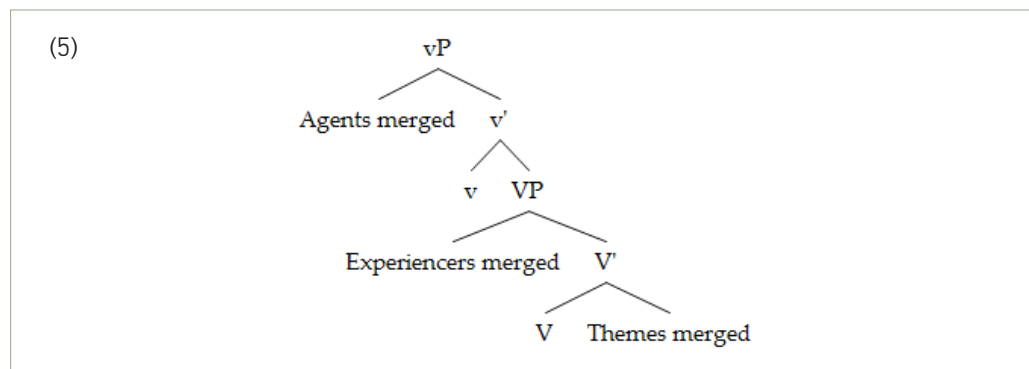
Given the fact that the arguments originate within the verb, it follows that subjecthood information is originally contained within the verb, but then arguments which have the function of the subject of the sentence undergo movement to spec-TP position in languages with SVO order. The obligatoriness of the move is language-dependent, with English and Italian being examples of obligatory and optional argument movement respectively (Radford, 2009). The idea of argument movement to its subject position was formulated as the Extended Projection Principle, the name of being no concern in the present study, stating essentially that finite clauses must have a subject: "subjects originate internally within the Verb Phrase as arguments of verbs, and are subsequently raised into the specifier position within TP, with the relevant movement operation being triggered by an (EPP) feature carried by T" (Radford, 2009, p.238). The moved argument leaves a trace, marked as *t* on the syntactic tree.

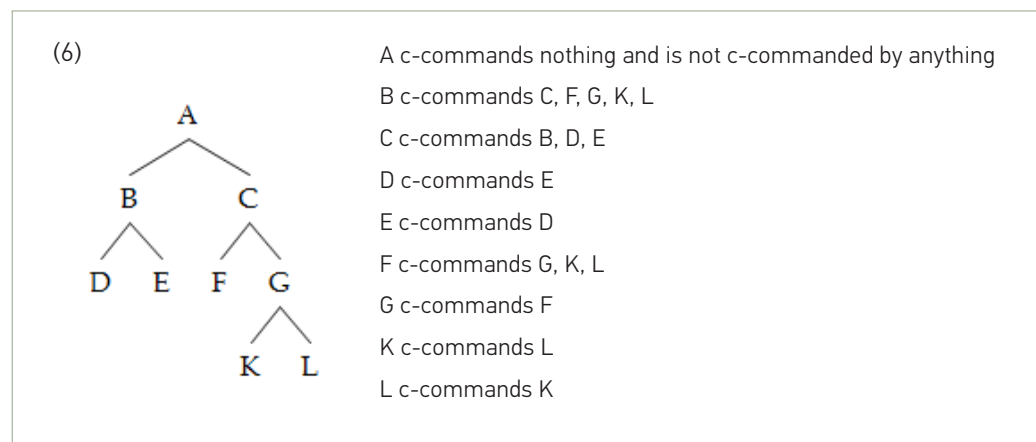## Relationships Between Elements on the Syntactic Tree

C-command

In terms of the relationships between the constituents, the fundamental notion since the late 1970s has been that of **c-command**, first extensively developed under the term of the

"syntactic domain of a node α" in Reinhart's (1976) analysis of anaphora. The c-commanding relationship holds between two elements A and B if and only if:

(i) A does not dominate B;

(ii) B does not dominate A;

(iii) the first branching node dominating A also dominates B. (Haegeman, 1994, 212).

Interpreting every node located higher in the tree as a mother and a lower node as a daughter, the relationship of c-command is sometimes defined as holding "among sisters and among aunts and their nieces and the descendants of their nieces", but not "between cousins or between a mother and daughter", (Carnie, 2013, p.128). The tree below schematically illustrates the possible placement of elements and their c-commanding relationship is provided:

(6)

A c-commands nothing and is not c-commanded by anything

B c-commands C, F, G, K, L

C c-commands B, D, E

D c-commands E

E c-commands D

F c-commands G, K, L

G c-commands F

K c-commands L

L c-commands K

C-command has become the essential component in examining the relationships holding in the syntactic dimension. Focusing specifically on the interrelationships of nouns and pronouns, the notion of c-command was elaborated further. A specific instance of c-command, which came to be known under the term *binding*, was proposed.

Binding theory

The notion of binding is at the core of the *Government and Binding Theory* developed by Chomsky (1981), where the relationship between nouns and pronouns was examined. In the course of time the theory ceased to be perceived as a unified approach with the language-specific binding relationships analysed contrastively against the original principles. It should also be noted that, within Chomskian approach, the term *anaphor* only applies to reflexives and reciprocals, contrary to the traditional, and broader, concept of *anaphora* which subsumes pronouns as well (Gardelle, 2012). In the present study, the term *anaphor* will have Chomsky's reading. Chomsky postulates that the use of pronouns and anaphors is stipulated by the environment in which they appear relative to the noun (antecedent): hence the noun is "the binder" whereas pronouns and anaphors are "bindees", the relationship itself being referred to as *binding*. Binding is defined as follows:

A binds B if and only if

(i) A c-commands B;

(ii) A and B are coindexed (Haegeman, 1994, p.212).

It is essential that binding holds if both conditions are met. Consequently, if one of the conditions is violated, the binding relationship does not hold. In terms of the distribution of pronouns

and anaphors relative to the antecedent, it turns out that their requirements are different: pronouns must not be bound by the noun, that is, they may either be c-commanded by, or coindexed with the antecedent, but not both. On the contrary, anaphors must be both c-commanded and coindexed with the antecedent. In addition, it turns out there is a certain "syntactic space" within which the anaphor must have its antecedent to ensure the grammaticality of the structure (Carnie, 2013, p.154), referred to as the *binding domain*. Consequently Chomsky postulated three Binding Principles A, B, and C, which are currently referred to as Binding Conditions. In simplified form, they may be presented as follows (R-expression referring to the noun):

Binding Conditions:

    A. An anaphor must be bound in its binding domain;

    B. A pronoun must be free in its binding domain;

    C. An R-expression must be free (Carnie, 2013, p.157).

In this way, the Binding Conditions regulate the appearance of nouns, pronouns and reflexives in the sentence as well as explain the ungrammaticality of certain structures. Applied to Lithuanian, the binding conditions can be illustrated considering sentences (7-11) below:

(7) *Petras*   *mato*   *Moniką*   *veidrodyje.*
Petras.NOM.SG   see.3.PRS   Monika.ACC.SG   mirror.LOC.SG.M
"Petras sees Monika in the mirror".

(8) *Petras$_i$*   *mato*   *jį$_j$*   *veidrodyje.*
Petras.NOM.SG   see.3.PRS   he.ACC.SG   mirror.LOC.SG.M
"Petras$_i$ sees him$_j$ in the mirror".

(9) **Petras$_i$*   *mato*   *jį$_i$*   *veidrodyje.*
Petras.NOM.SG   see.3.PRS   he.ACC.SG   mirror.LOC.SG.M
"Petras$_i$ sees him$_i$ in the mirror".

(10) *Petras$_i$*   *mato*   *save$_i$*   *veidrodyje.*
Petras.NOM.SG   see.3.PRS   self.ACC.SG   mirror.LOC.SG.M
"Petras sees himself in the mirror".

(11) **Petras$_i$*   *mato*   *save$_j$*   *veidrodyje.*
Petras.NOM.SG   see.3.PRS   self.ACC.SG   mirror.LOC.SG.M
"Petras$_i$ sees himself$_j$ in the mirror".

In the examples above, Petras and Monika are R-referring expressions: they must be free, that is, they cannot fulfil both conditions for binding: c-command and coreference. Since they do not corefer, they consequently cannot be bound and are free. The same is true of sentence (8): *jį* is a pronoun which must be free. Again, as in (7), since there is no coreference between the antecedent and the pronoun in (b), the structure is grammatical, contrary to (9), where the pronoun is not only c-commanded by the noun, but also corefers with it and therefore a binding relationship is formed, due to which the structure is ruled out as ungrammatical, according to Condition B. In (10), *save* is an anaphor. It is c-commanded by its antecedent, *Petras*, and is coreferent with it thereby complying with Condition A. In (11), the anaphor does not corefer with its antecedent, thereby violating Condition A, and the entire structure is ruled out.

In the present analysis, only Condition A will be used. It will first be shown below that the relationship in which the RM finds itself is anaphoric and then the binding domain will be defined. Hence it is time to formulate the relationship between the RM and the nominal it refers to.

Exploring the RM

Three characteristics

Since the present article is concerned with the synchronic analysis of the placement of the RM in standard Lithuanian, three main characteristic features of the RM that are relevant for the current purposes will be distinguished (cf. Jakulienė, 1967):

1) In the process of reflexivisation, the RM may reduce the valency of the originally non-re-flexive transitive verb (hereinafter, regardless of its position, the RRM is schematically rendered as *si* in glosses):

    (12) *Povilas*   *kelia*   *ranką.*

    Povilas.NOM.SG.M   raise.3.PRS   hand.ACC.SG.F

    "Povilas raises (his) hand".

    (13) *Povilas*   *keliasi.*

    Povilas.NOM.SG.M   raise-3.PRS-si

    "Povilas gets up".

2) As has already been mentioned, the position of the RM depends on the morphological composition of the verb: following the prefix in prefixed verbs and verb-finally in prefixless verbs.

    (14) *at-si-kėlė*   vs   *kelia-si*

    pref-si-rise.3.PAST   rise.3.PRS-si

    "has risen/ rose"   "rises/ is rising"

Historical evidence states that structures with the reflexive marker simultaneously both pre-ceding and following the verb are attested (Jakulienė, 1968a, 1969; Zinkevičius, 1996), but the puzzle of the present-day placement of the RM, however, has remained unexplained.

3) The RM has to corefer with the noun whose action the verb, containing the RM, describes. This is shown in example (15) below. In addition, the RM-containing clause does not allow additional nominals in the same clause which could compete with the noun the RM refers to; hence while (15-16) are grammatical sentences in which the presence or absence of the RM contributes to the specification of the action conducted by the agent and ultimate-ly, the beneficiary of the action, (17) is not:

    (15) *Tomas$_i$*   *pasi$_i$statė*   *namą.*

    Tomas.NOM.SG.M   pref-si-build.3.PAST   house.ACC.SG.M

    "Tomas (has) built a house (for himself)".

    16) *Tomas*   *pastatė*   *broliui*   *namą.*

    Tomas.NOM.SG.M   pref-build.3.PAST   brother-DAT.SG   house.ACC.SG.M

    "Tomas built a house to his brother".

    17) **Tomas$_i$*   *pasi$_i$statė*   *broliui*   *namą.*

    Tomas.NOM.SG.M   pref-si-build.3.PAST   brother-DAT.SG   house.ACC.SG.M

    "Tomas built a house to his brother".

Although we will be primarily concerned with agentival sentences, obligatory coreference with the subject argument in (15) seems to hold for all types of arguments – agents, experi-encers and themes as illustrated in (18-20) respectively:

(18) *Monika_i*   *nusi_ipirko*   *knygą.*

Monika.NOM.SG.F   pref-si-buy.3.PAST   book.ACC.SG.F

"Monika bought a book".

(19) *Petras_i*   *bijo-si_i*   *tamsos.*

Peter.NOM.SG.M   be-afraid.3.PRS-si   darkness.GEN.SG.F

"Peter is afraid of darkness".

(20) *Parduotuvė_i*   *užsi_idarė.*

Shop.NOM.SG.F   pref-si-do.3.PAST

"The shop closed down".

Let us also consider a pair of examples with reciprocity conveyed through pronominal forms (21) and the reciprocal verb form (22):

(21) *Draugai*   *dažnai mato*   *vienas*   *kitą.*

Friend.NOM.PL.M   often   see.3.PRS   each   other-ACC.SG

"(The) friends often see each other".

(22) *Draugai_i*   *dažnai*   *matosi_i.*

Friend.NOM.PL.M   often   see.3.PRS-si

"(The) friends often see each other".

In (22), the RM refers to its antecedent, *draugai*, and consequently, is coindexed with it.

On the basis of the examples above, the following may be concluded about the RM: the RM has a strictly defined lexical meaning and grammatical function: at all times, coreference with the antecedent must be maintained and there must not be any other arguments which could be interpreted as potential antecedents. More specifically, the RM-containing agent verb disallows any alternative R-expressions within the semantic range of agent-experiencer-beneficiary; experiencer and thematic RM-containing verbs must have their RM coreferring with the experiencer/ thematic subject. Therefore, the RM plays a role in determining the ultimate argument structure of the sentence. Since the RM is actively involved in derivational processes, has lexical form and bears influence over other elements in a sentence, it should be accounted for in a tree diagram. But how?

Placing the RM on the Syntactic Tree

There seem to be two issues in this respect. First, it is not clear which form, the one appearing verb-finally, or post-prefixally, should be taken as the basic, but it is obvious that the repositioning of the RM and the verb with respect to each other has to be accounted for. Considering this issue, there are as many as three options available: 1) the RM does not move, the verb does; 2) the RM moves, the verb does not; 3) both the RM and the verb move. It is notable that, within the generative tradition, rightward movement on the tree is blocked (Kayne, 1994); consequently, subsequent examination has to follow the principle of obligatorily leftward movement on the tree.

Second, while the RM clearly has a (pro-)nominal status, morphonologically it forms a single unit with the verb and is never separated from the verb syntactically (considering the synchronic cut only). Consequently, when building a syntactic tree, the RM has to be incorporated into the structure of the verb while giving credit to its non-verbal status. In addition,

this status is rather "passive": disregarding instances of allomorphy, which are apparently a later process in the derivation, the RM does not have any competing derivational affixes of its kind. Considering all of the above, the two options available are these: 1) prioritising its unchanging morphology, the RM may be assumed to be "slave"-part of the verbal projection; 2) prioritising its influence on the argument structure of the sentence, the RM may be assumed to occupy a certain node and hence have a projection of its own. The options are graphically presented below as (23) with the verb undefferentiated for its type (little verb v or lexical verb V), but schematically marked as *v*, and the RM in brackets suggesting that either of the positions holds, without further specification at the moment:

(23)
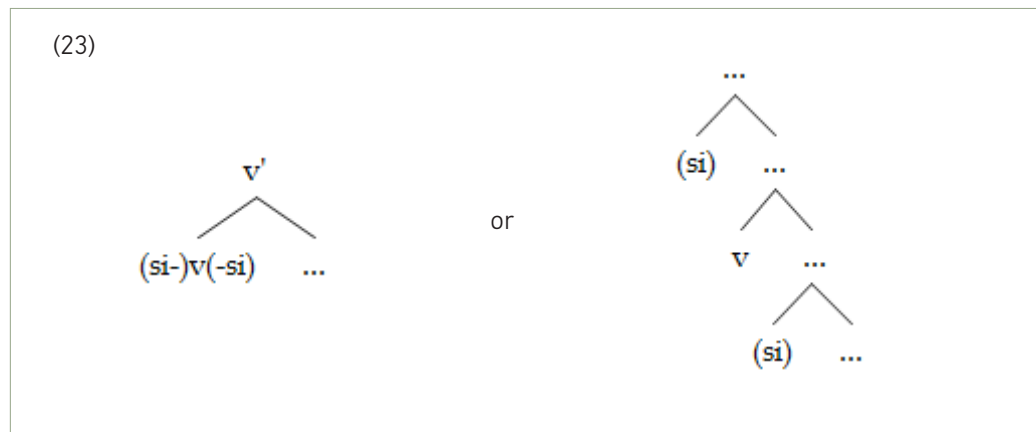
Let us now consider both options. The hypothesis of the RM forming part of the verb head seems to be untenable: it is unlikely that it is only part of the verb head that would be forced to move out of its base position while the main element, the verb, would be forced to stay. Given the fact that rightward movement is blocked, this is the only distribution of "power relations" between the verb and the RM available: the verb cannot be posited as moving across the RM in the rightward direction. Another factor is that, under this approach, the close relationship holding between the sentence subject and the RM emphasizes the heterogeneity of the verb head, which clashes with economy considerations which form a crucial component in minimalist approaches. Meanwhile the second option, i.e., the position of the RM on a separate node, does not seem to have any counterarguments: each language element has a certain function and label, which meets the requirements of the adequate grammar. The problem that remains unresolved, however, the fact that the RM and the verb have not been assigned fixed positions relative to one another, and this approach does not help in identifying them. Consequently we are forced to look for another anchor of stability. It is the prefix.

Lithuanian Prefixes: Introducing the Aspectual Head AspP

However ironically that might sound, neither the verb, nor the RM appear above, but always below the prefix. The prefix is also the part of verbal morphology that always marks the left boundary of the verb. The prefix therefore forms a certain barrier below which all the permutations hold. Given its stability, it may be worthwhile to establish its status first.

By native Lithuanian verbal prefixes the following prefixes are understood: at-, ap-, be-, į-, iš-, ne-, nebe-, nu-, pa-, par-, per-, pra-, pri-, prieš-, su-, te-, tebe- už- (Paulauskienė, 2006, Klimas, 1991). The majority of prefixes originate from prepositions and only a few are clitical: be-, ne(be)-, and te(be)-; consequently, the former group of prefixes is often used to-

gether with their prepositional correlates and the latter group has several prefixes (ne-, and nebe-) which can be separated from the verb, as illustrated in (24-26) respectively:

(24) *Nu-imti   nuo   stalo.*

from-take-INF   from   table.GEN.SG.M

"to take from the table"

(25) *Tomas   nusipirko   šunį,   o Jonas –   ne.*

Tomas.NOM.SG.M   pref-si-buy-3P.PAST   dog.ACC.SG.M   and John.NOM.SG – not

"Tomas has bought a dog and John hasn't".

(26) *Tomas   stat-o-si   namą,   o   Jonas –   nebe.*

Tomas.NOM.SG.M   build-3.PRS-si   house-SG.ACC.M   and   John.NOM.SG -   not.PROG

"Tom is building a house and John not anymore".

The diversity of the meanings contributed by the prefix is reflected in alternative terminology proposed, e.g. **preverbs** (Sawicki, 2000), with prefixed verbs further subdivided into purely **prefixed**, and **particle prefixed verbs** (Lith *priešdėliniai, partikuliniai priešdėliniai veiksmažodžiai; G partikelierten Präfix-verben*) (Liparte, 2000). Prefixes are perceived as a means to convey aspectual or Aktionsart-related information sometimes specifying that the information is more "semantic" or "lexical", rather than purely morphological (Sawicki, 2000, p.134). In the present approach the term **prefix** will be used. Viewed broadly, all prefixed Lithuanian verbs convey an idea that "the action has attained a result" (Ambrazas, 2006, p.402). Consequently all prefixes appearing before -*si* may be argued to contribute the meaning of resultativeness which may or may not be supplemented with the directionality component, given the fact that prefixes often have prepositional roots. Therefore it can be generalized that Lithuanian prefixes, including the clitical compound *nebe-* and except the purely negative clitic *ne-*, are to be stored under the functional AspP projection found immediately above the vP/ VP. Given the diversity of meanings contributed by Lithuanian prefixes, the aspectual projection AspP would subsume both aspect- and Aktionsart-related meanings, a detailed examination of which (in the manner proposed by, e.g., Romanova (2004)) goes beyond the scope of the present study.

The presence of the aspectual projection above the verb group has been argued for on independent grounds (Felser, 2000, Katz, 2000). Felser argues for an aspectual projection based on her analysis of infinitival and participial complement clauses in Dutch, German, and English. Following her analysis, English phrasal verbs are argued to move to the AspP position and thus are separated from the particle (Radford, 2010). In his examination of the point of adjunction of manner adverbs, which are regarded to be positioned the closest to the verb group, Katz (2000) discovers what he refers to as the Stative Adverb Gap, which implies that only few manner can be used with state verbs, but all manner adverbs combine freely with eventive verbs. Katz attributes this fact to the presence or absence of the Davidsonian "eventuality argument" *e:* state verbs merely do not have it, hence state VPs appear immediately below the Tense phrase. Meanwhile eventive verbs have *e*; consequently, the eventive VP is dominated by the Aspectual phrase to which manner adverbs must adjoin. In her research on the position of the Lithuanian verb on the syntactic tree, Korostenskienė (2015) has shown that the same principle applies to Lithuanian manner adverbs: when used with stative verbs, they produce ungrammatical structures. Relevant changes in the aspectual properties of the stative verb can fix the ungrammaticality arising when used with manner adverbs. Consider

Katz's example (3) repeated here as (27) as well as its ungrammatical equivalent in Lithuanian (28) and corrective aspectual adjustments – adding a perfective prefix to the verb- in (29):

(27) *John loved Mary quickly.* (Katz, 2000, p.135)

(28) *Jonas*	*greitai*	*mylėjo*	*Mariją.*
Jonas.NOM.SG.M	quickly	love.3.PAST	Marija.ACC.SG.F

"Jonas quickly loved Marija".

(29) *Jonas*	*greitai*	*pamilo*	*Mariją.*
Jonas.NOM.SG.M	quickly	pref-love-3.PAST	Mary.ACC.SG.F

"Jonas quickly came to love Marija".

By examining the place of adjunction of manner adverbs, Korostenskienė (2015) has argued that verbal prefixes do not form part of the verb phrase and adjoin higher, at an aspectual projection AspP, which has a zero head in the case of prefixless verbs. In addition to accounting for why both prefixed and prefixless dynamic, or eventive, verbs can be used with manner adverbs, while stative verbs cannot, this position is also motivated by the fact that all prefixes have a resultative meaning. For the present purposes this treatment will suffice although the placement of Lithuanian prefixes placed above the v/ VP may also advocated on independent grounds employing the methodology originally proposed by Svenonius (2008).

Given all these considerations, it is natural to assume that the prefix fills an aspectual head on the syntactic tree and hence is immediately above the verb group, as demonstrated in the tree below (for the present purposes a simplified approach to the category of aspect is assumed; consequently, only one dedicated projection is distinguished):

(30)
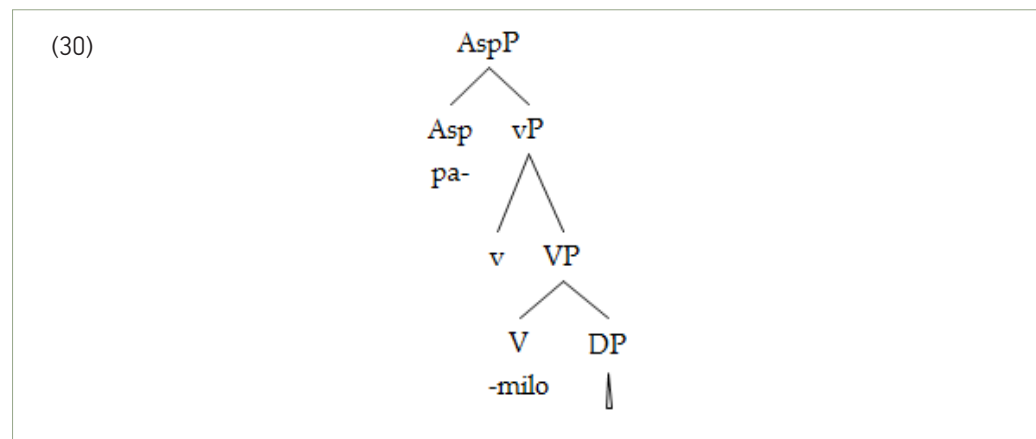
We also adopt the treatment of the negative clitic *ne-* as having a phrasal status (NegP), as demonstrated in Korostenskienė (2014) by means of an elision test: the fact that the deletion of one of the elements under analysis does not affect the grammaticality of the structure proves that the elements in question are constituents. The constituenthood of the negative clitic and the remaining verbal part is illustrated in (25) repeated for convenience below as (31):

(31) *Tomas*	*nusipirko*	*šunį,*	*o*	*Jonas –*	*ne.*
Tomas.NOM.SG.M	pref-si-buy-3P.PAST	dog.ACC.SG.M	and	Jonas.NOM.SG.M	not

"Tomas has bought a dog and Jonas hasn't".

Given the phrasal status of the negative clitic and its point of adjunction to the verb, it follows then that the negative phrase NegP is placed above the AspP, which complies with the standard approach to negation (e.g. Haegeman, 2005; see also Carnie, 2013; Radford, 2009).

Therefore, further analysis should focus on the processes taking place on the left boundary of the verbal complex that has just been identified: whatever happens to the verb and the RM, changes in the verb with a resultative prefix always occur below the aspectual phrase AspP, within the verbal complex v/ VP. Changes in negative, but otherwise prefixless verbs take place presumably within the verbal complex, but at least below the negative head Neg°. With this in mind, the RM will be considered next basing analysis on agentive verbs for convenience.

RM as a Subject Anaphor

Let us summarise again the distinctive features of the RM: it corefers with the subject of the sentence and does not allow related arguments into context. It also changes its position within the verb, in the presence of the prefix, appearing as close to the left boundary as possible, yet never leaving the boundaries of the morphological verb. Third, the subject arguments are themselves inherently encoded in the verb. These three facts strongly suggest that the subject of the sentence and the RM stand in anaphoric relationship. The tight relation between the subject argument and the RM can then be naturally accounted for by suggesting that the RM is the physically manifest trace, or, using more recent terminology, copy, of its antecedent. If the RM is regarded as an anaphor, its changing position relative to the verb may be justified by the need to be properly bound by its antecedent, i.e. the subject argument, which follows from Binding Condition A, repeated for convenience below:
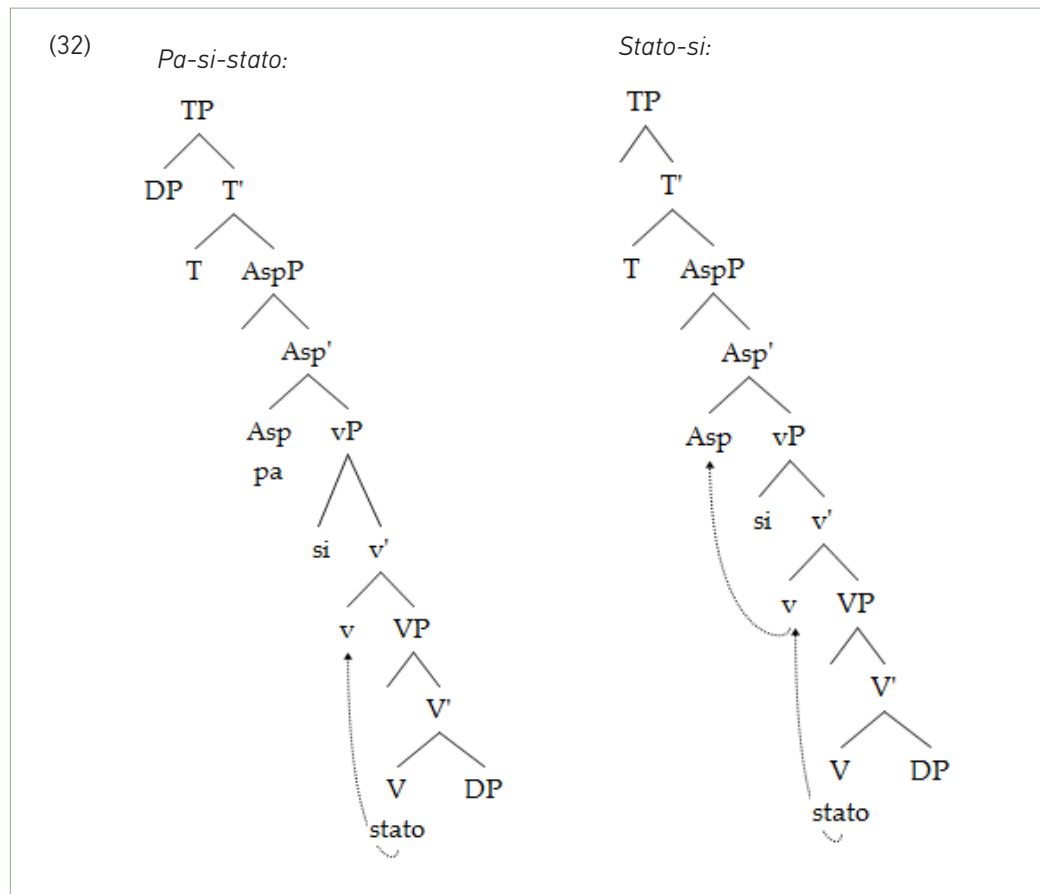
Binding Condition A:

An anaphor must be bound in its binding domain.

Since the binding relationship between the anaphor and the antecedent must hold at all times to ensure proper binding, it is for binding considerations that the RM undergoes movement. Therefore, the binding domain for the anaphoric RM should now be defined for each case in which the RM can appear: 1) following the prefix, as in *pa-si-statė*; 2) following the verb, as in *stato-si*; 3) following the negation, as in *ne-si-stato*.
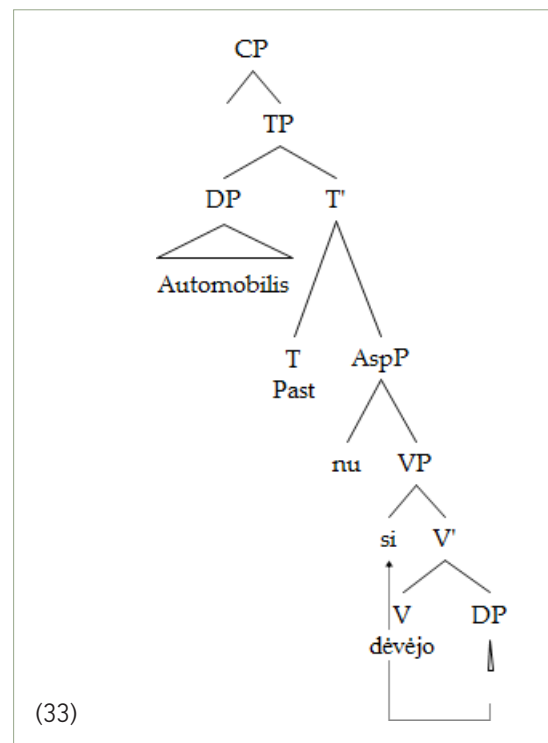
Remembering the structure of the sentence again, the following relationship is revealed: in as the subject of the sentence, regardless of its type, takes the spec-TP position (assuming the SVO order and all other word combinations taking place for pragmatic reasons at a later stage), it is important for the RM to appear close enough to the subject. Therefore, given the morphological structure of the verb, it may be stated that the binding domain is formed between the T and the AspP: in the case of prefixed verbs, the AspP is overtly manifest and filled by a (resultative) prefix. But how about the prefixless verbs?

Since in the latter case the aspectual projection is unfilled, but the binding domain must be properly formed, the only way to preserve grammaticality of the structure is to suggest that the verb should move out of its position and take the aspectual head position, which indeed is what happens in reality: when prefixless, the verb appears before the RM: we say *stato-si*, and not **si-stato*. The tree diagrams below reveal the process:

Placing the RM within the Binding Theory

(32)   *Pa-si-stato:*   *Stato-si:*

```
        TP                              TP
       /  \                            /  \
     DP    T'                              T'
          /  \                            /  \
         T    AspP                       T    AspP
             /   \                           /   \
                 Asp'                            Asp'
                /    \                          /    \
             Asp      vP                     Asp      vP
             pa      /  \                            /  \
                   si    v'                        si    v'
                        /  \                            /  \
                       v    VP                         v    VP
                            /  \                            /  \
                           V'                                   V'
                          /  \                                 /  \
                         V    DP                              V    DP
                        stato                                stato
```

If so, the only difference between the agentive, experiencer and thematic arguments is in the place of their merging position: spec-v for agent arguments, spec-V for experiencer arguments, and comp-V for themes. The analysis for agents and experiencers is fairly straightforward (constraining the present analysis for nominative subjects only and leaving more idiosyncratic cases for further study, possibly along the lines of Bowers (2002)). However, with thematic arguments one intermediate stage has to be allowed: in order to precede the verb, the thematic RM apparently has to raise to spec-VP. This adjustment follows naturally, if the spec-VP projection is regarded as an intermediate position of the thematic subject argument (of which the RM is an anaphor) on its way to spec-TP. The relevant tree is provided here:

(33)

```
              CP
             /  \
             TP
            /  \
          DP    T'
         /‾‾\  /  \
     Automobilis
               T    AspP
              Past  /  \
                   nu    VP
                        /  \
                      si    V'
                           /  \
                          V    DP
                       dėvėjo
```

The proposed account for each type of argument also captures the "self-sufficiency" of the RM in the clause manifest in limited or non-acceptability of competing arguments with the semantic roles of the Undergoer/ Resultee, following Ramchand's (2008) distinction, as illustrated in (17) and repeated for convenience below as (34):

(34) *Tomas_i   pasi_istatė   broliui   namą.

Tomas   pref-si-build.3.PST   brother-DAT.SG   house.ACC.SG

"Tomas build a house to his brother".

As can be seen, the presence of the RM in the verb assumes the semantic role of the Resultee, which disallows the overt indirect object.

Extending Analysis to Negative Forms.

What remains to be accounted for is the negative form. As has already been shown, the negation has its own functional projection NegP which, given the discussion above, must be positioned above the AspP:

(35) *Ne-pa-si-statė*

Ne-pref-si-build-3.PST

"Did not build".

In the absence of the aspectual prefix, however, the remaining morphemes preserve the same layout:

(36) *Ne-si-stato;*

Ne-si-build-3.PRS;

"Does not build/ is not building".

Remembering that in the prefixless verbs the verb raises to the head Asp^o, it can be seen that in the negative form the verb, again, follows the RM. Given the fact that the aspectual position has to be present and it occupies the intermediate position between the negation and the verb, it is believed that in this case, both the verb and the RM move: the verb to take the aspectual head position, while the RM, respectively, to spec-Asp position.

On this account, the binding domain is redefined: it is now formed between the T and NegP, because if it were to remain between T and AspP, the verb form would have to be the ungrammatical, but sometimes used in jocular contexts, *ne-stato-si*. The relevant operations taking place to generate the grammatically correct form *ne-si-stato* are illustrated here:

(37)
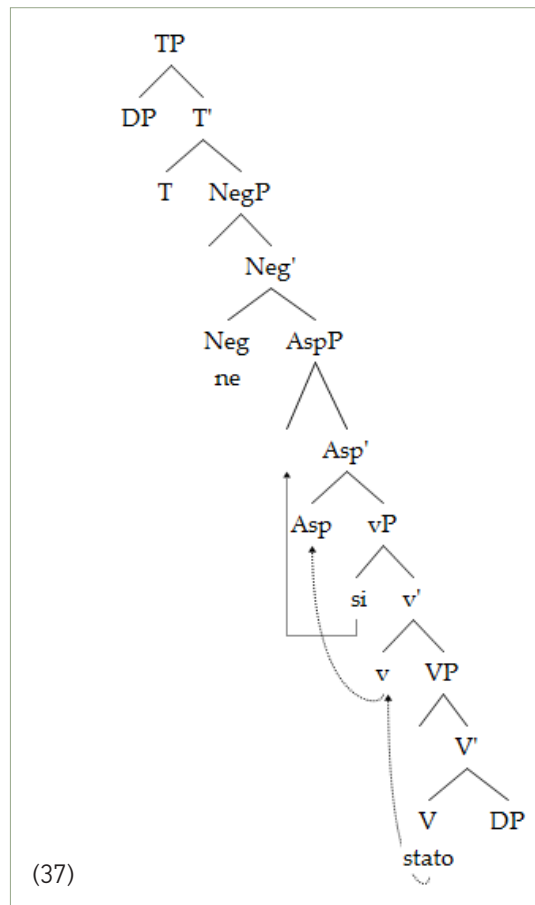
One final note has to be said about the timing of the final ordering of the RM and the verbal complex. Apparently it should take place immediately before the spellout: the verb has already been supplemented with the relevant tense and agreement morphology (which is why there are prefixless verbs with the RM figuring as a word-final clitic), and the presence or absence of the negation has been determined (which is why the RM figures before the verb in negative, but otherwise prefixless verbs, and after the verb in non-negative forms). Forms like *ne-si-pastato* are excluded due to the fact that, while the aspectual functional projection is inherently associated with the verb, the negative functional projection is not; consequently, the RM can never raise to spec-Asp in the presence of a resultative prefix, i.e. the aspectual head Asp°.

In this way, the proposed analysis provides a unified account for the position of the RM from a synchronic perspective. The implications of this study are threefold. First, while a diachronic inquiry into the variations in the binding domain of the RM goes beyond the scope of this study, the possibility of a certain readjustment of the binding domain is also historically attested in reflexive verb forms, with the initial element being of pronominal or particle nature, such as *kur-si-dėti(s)* (Jakulienė, 1969, p.198), going ultimately to the question of the formation of the binding domain itself, given the presence of forms, such as *padaryki-si* (Razanovaitė, 2010, p.261). Second, given the presence of multi-prefixed forms like *te-be-pa-si-stat-o* "still builds/ is still building", but not *te-si-be-pa-stat-o*, generative analysis of Lithuanian prefixes has to be conducted. Third, (at least) from a synchronic perspective, the presence of the RM in the verb implies the presence of the subject antecedent in the sentence, whether it be overtly or covertly manifest, which may be of interest in subjecthood-related explorations.

Conclusion

The present article has provided an account for the placement of the reflexive marker in Lithuanian prefixed and prefixless verbs, a long-standing unresolved issue of Lithuanian morphosyntax. It has been shown that the reflexive marker –si- acts as a subject anaphor, and, given the theoretical premise that all arguments are merged within the verb, is a physically manifest trace of the subject argument, whether it be the agent, experiencer, or theme, merged and originally placed in its corresponding position: spec-v for agents, spec-V for experiencers, and comp-V for themes. Consequently the RM is shown to obey Binding Condition A, which states that the anaphor must be properly bound, i.e., be positioned at a certain distance from its antecedent. On the basis of the fact that all Lithuanian prefixes have a resultative meaning, prefixes are postulated to head the functional projection AspP, which is positioned above the verbal complex. Consequently, it is argued that in prefixed verbs, the RM remains in its merge position in agentive and experiencer verbs, raising to spec-V as part of the movement of the thematic argument to its subject position in spec-TP. In negative but otherwise prefixless forms, both the RM and the verb undergo raising to spec-AspP and Asp° positions respectively, the binding domain in this case formed between T and NegP.

Crucially, the proposed analysis redefines the relationship between the verb and the RM: the latter is no longer viewed as a morpheme with the option of reducing the valency of the verb, but the overtly manifest trace/ copy of the merging position of the argument itself.

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Abbreviations

ACC – Accusative

Aspº – aspect head

AspP – aspect phrase,

comp – complement,

DAT – dative,

DP – determiner phrase,

EPP – external projection principle,

GEN – genitive,

F – feminine,

M – masculine,

Negº – negation head,

NegP – negation phrase,

NOM – nominative,

PST – past,

PL – plural,

PREF – prefix,

PROG – progressive,

PRS – present,

SG – singular, spec – specifier,

RM – reflexive/ reciprocal marker,

T – tense,

TP – tense phrase,

V – verb,

VP – verb phrase,

v – light verb,

vP – light verb phrase,

t – trace.

Santrauka

Julija Korostenskienė. Dėl lietuvių kalbos veiksmažodžių sangrąžos dalelytės *-si* pozicijos

Straipsnyje analizuojama lietuvių kalbos sangrąžinės dalelytės (SD) -si pozicija veiksmažodyje pasitelkiant generatyvinės sintaksės metodologiją. Rodoma, jog SD pasireiškia kaip veiksnio anafora (angl. *anaphor*) sakinyje, todėl ji gali būti interpretuojama pagal N. Chomskio įrišimo teorijos (angl. *Binding Theory*) principą A (angl. *Condition A*), anot kurio anafora turi atsirasti tam tikroje pozicijoje antecedento įrišimo srityje (angl. *Binding domain*). Straipsnyje teigiama, jog pagal veiksnio atsiradimo veiksmažodžio viduje hipotezę (angl. *VP-internal subject hypothesis*) SD gali būti traktuojama, kaip fizinis sakinio veiksnio pėdsakas arba kopija (angl. *trace, copy),* susiformavęs veiksmažodžio struktūroje. Konkreti SD vieta veiksmažodyje priklauso nuo veiksnio tipo – veikėjo, patyrėjo arba temos (angl. *agent, experiencer, theme*), o tai leidžia paaiškinti SD daugiareikšmiškumą. Toliau straipsnyje analizuojami procesai, vykstantys priešdėliniuose ir nepriešdėliniuose veiksmažodžiuose. Rodoma, kad lietuvių kalbos priešdėlių vieta sintaksiniame medyje turi būti aukščiau veiksmažodžio frazės (v/ VP), būtent veikslo frazės funkcinėje projekcijoje (angl. *functional projection* AspP). Straipsnyje išreiškiama mintis, jog teigiamajame sakinyje įrišimo valda susidaro tarp laiko projekcijos T ir veikslo frazės AspP. Todėl priešdėliniuose veiksmažodžiuose SD lieka savo atsiradimo pozicijoje. Tuo tarpu nepriešdėliniuose veiksmažodžiuose veiksmažodis turi persikelti (angl. *move*) į aukštesnę veikslo frazę, kad išsaugotų reikalingą įrišimo valdos atstumą, todėl SD atsiranda veiksmažodžio gale.

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