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Verbal prefixation and argument structure in Lithuanian

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This paper describes the possible changes affecting a verb's argument structure when a prefix is added. The analyzed data show that most often attachment of a prefix adds a new slot to a verb's valency, namely a peripheral adjunct becomes a core argument usually marked by the accusative. This process can be called applicativization, and prefixal derivation thus belongs to the group of valence-increasing formations. The syntactic status of the added arguments is analyzed by applying various transitivity tests. These tests show that most of the added arguments behave as direct objects and the change of the verb's argument structure can be regarded as transitivization. However, some arguments behave as direct objects only with originally intransitive verbs but look like obligatory accusative-marked adjuncts with other verbs. The article also discusses cases where prefixation changes case marking, rearranges a verb's arguments, or licenses syntactic alternations.

1. Introduction¹

One of the most striking similarities between Baltic and Slavic verb-deriving morphology is the use of prefixes to derive verbs with new meanings, e.g. Polish *bicić* 'to beat' vs. *zabicić* 'to kill', Latvian *lidot* 'to fly' vs. *aizlidot* 'to fly away'.

Most Slavic and Baltic verb prefixes are etymological or functional cognates; see Table 1, where reconstructed Balto-Slavic forms and their realizations in Lithuanian, Polish and Russian are given. However, our knowledge about their functions and patterns of use differs significantly. Slavic prefixes have enjoyed much attention from linguists belonging to different traditions and are

1. I am grateful to Axel Holvoet, Nicole Nau, Peter Arkadiev, Mikhail Oslon, Shifí Wygoda, and an anonymous reviewer for many useful comments on the preliminary version of this paper, as well as to the participants of the project workshop in Salos (August 2014) for their feedback. Of course, all shortcomings remain mine.

comparatively well studied, while their Baltic cognates have been subject to analysis in just a very few works. The most important contributions discussing the use of Baltic prefixes were published quite a long time ago, see Endzelin (1906) on Latvian and Paulauskas (1958) on Lithuanian prefixes, and were primarily focused on the semantics of verbal prefixes. In this paper I aim to describe the changes of argument structure that happen to a verb when a prefix is attached. The analysis is based on Lithuanian data.

Table 1. Baltic and Slavic prefixal cognates

Balto-Slavic reconstruction	Lithuanian	Latvian	Polish	Russian
* <i>op(i)</i>	<i>ap-</i>	<i>ap-</i>	<i>ob-</i>	<i>ob-</i>
* <i>at(a)</i>	<i>at-</i>	<i>at-</i>	<i>od-</i>	<i>ot-</i>
* <i>in</i> * <i>un</i> ²	<i>į-</i>	<i>ie-</i>	<i>w-</i>	<i>v-</i>
* <i>iz</i>	<i>iš-</i>	<i>iz-</i>		<i>iz-</i>
* <i>nō</i>	<i>nu-</i>	<i>no-</i> [nuo]	<i>na-</i>	<i>na-</i>
* <i>pa</i>	<i>pa-</i>	<i>pa-</i>	<i>po-</i>	<i>po-</i>
?	<i>par-</i>			
* <i>per</i>	<i>per-</i>	<i>pār-</i>	<i>prze-</i>	<i>pere-</i>
* <i>pra</i> * <i>pro</i> ?	<i>pra-</i>			<i>pro-</i>
* <i>prēj</i>	<i>pri-</i>	<i>pie-</i>	<i>przy-</i>	<i>pri-</i>
* <i>su</i> * <i>sun</i> ?	<i>su-</i>	<i>sa-</i>	<i>z-</i>	<i>s-</i>
* <i>uz</i> ?	<i>už-</i>	<i>uz-</i>	<i>wz-</i>	<i>vz-</i>
* <i>ažō</i> ?	dial. <i>ažu-</i>	<i>aiz-</i>	<i>za-</i>	<i>za-</i>

Verbal prefixes in Lithuanian are bound morphemes, i.e. they are morphophonologically integrated into the verb stem. This is evidenced by the fact that verbal prefixes can attract accent from the root under quite complex conditions defined both phonologically and morphologically; see Andronovas (1998), as in (1). Another important feature of verbal prefixes is that they make the reflexive marker move from the word-final to the pre-root position, as in (2).

- (1) a. *at-nėš-ti* b. *āt-neš-u*
 PRV-bring-INF PRV-bring-1SG.PRS
 ‘to bring’ ‘I bring’
- (2) a. *neš-ti-s* b. *at-si-neš-ti*
 bring-INF-RFL PRV-RFL-carry-INF
 ‘to carry for oneself’ ‘to bring for oneself’

2. **en* – for Latvian.

The prefixal morphemes that satisfy these criteria can be divided into two groups: (i) derivational, or internal, prefixes, and (ii) inflectional, or external prefixes.

There are twelve derivational prefixes in standard Lithuanian: *ap-*, *at-*, *į-*, *iš-*, *nu-*, *pa-*, *par-*, *per-*, *pra-*, *pri-*, *su-*, *už-*, see Ambrasas ed. (2006:222). These prefixes have at least one spatial meaning each, and most of them have correlates among prepositions; see Table 2.

Table 2. Correlation between verbal prefixes and prepositions in Lithuanian

Prefixes	<i>ap-</i>	<i>at-</i>	<i>į-</i>	<i>iš-</i>	<i>nu-</i>	<i>pa-</i>	<i>par-</i>	<i>per-</i>	<i>pra-</i>	<i>pri-</i>	<i>su-</i>	<i>už-</i>
Prepositions	<i>apie</i> , <i>aplink</i> 'around'	-	<i>į</i> 'in; into'	<i>iš</i> 'out of'	<i>nuo</i> 'from'	<i>po</i> 'along; under'	-	<i>per</i> 'over; through'	<i>pro</i> 'through'	<i>prie</i> 'at'	<i>su</i> 'with'	<i>už</i> 'behind'

In contrast to Slavic, in Lithuanian there is a restriction limiting the number of internal prefixes to no more than one per verb, cf. (3).

- (3) a. *rašy-ti* b. *į-rašy-ti* c. *per-rašy-ti* d. **per-į-rašy-ti*
 write-INF PRV-write-INF PRV-write-INF PRV-PRV-write-INF
 'to write' 'to write down' 'to rewrite' intended 'to write
 down again'

The limitation as to the number of derivational prefixes per word is undoubtedly one of the most important differences between Lithuanian and Slavic. In Slavic multiple prefixation is quite productive, cf. the Belarusian parallel to (3):

- (4) a. *pisa-c'* b. *za-pisa-c'* c. *pera-pisa-c'* d. *pera-za-pisa-c'*
 write-INF PRV-write-INF PRV-write-INF PRV-PRV-write-INF
 'to write' 'to write down' 'to rewrite' 'to write down again'

The second group of verbal prefixes in Lithuanian includes the prefixes *te-*, *be-*, *tebe-*, *ne-*, *nebe-*, which do not express any spatial meanings, see more on their semantics in Arkadiev (2010; 2011), and which can be attached to a prefixed verb, i.e. they are "outer" or "external" prefixes, cf. (5).

- (5) a. *ei-na* b. *at-ei-na* c. *te-at-ei-na*
 go-PRS.3 PRV-go-PRS.3 PRM-PRV-go-PRS.3
 'is going' 'is coming' 'let him/her/them come'

These prefixes exist only in Lithuanian and do not have correlates in Slavic and other Baltic³ languages. One of the salient features of the external prefixes found in several other languages (Romance and Slavic) is that they usually do not affect the

3. Although Latvian has the "external" negation *ne-* and the debitive prefix *jā-*.

verb's argument structure, and when they do, the change is completely predictable; see, for instance, Di Sciullo (1997) on French and Tatevosov (2009) on Russian. The Lithuanian data support the generalization, as these Lithuanian prefixes do not change the verb's argument structure. Hence, this paper will focus only on the derivational prefixes.

In order to analyze the effects prefixes have on argument structure I have extracted all prefixed verbs from the Dictionary of Modern Lithuanian (*Dabartinės lietuvių kalbos žodynas*, DLKŽ, <http://dz.lki.lt>).⁴ The numbers of verbs listed with each of the derivational prefixes are shown in Table 3.

Table 3. Number of prefixed infinitives (including suffixal derivatives and reflexives) in DLKŽ

<i>ap-</i>	<i>at-</i>	<i>į-</i>	<i>iš-</i>	<i>nu-</i>	<i>pa-</i>	<i>par-</i>	<i>per-</i>	<i>pra-</i>	<i>pri-</i>	<i>su-</i>	<i>už-</i>	Total
694	487	647	1381	759	1614	94	351	431	637	2121	955	10171

The extracted verbs were checked against the data from the Corpus of Modern Lithuanian (*Dabartinės lietuvių kalbos tekstynas*, DLKT, <http://tekstynas.vdu.lt/tekstynas/>) and examples obtained through Google search, and then also evaluated by native speakers.

The change of argument structure is established by comparing the argument structures of non-prefixed and prefixed verbs with the same root. All prefixed verbs whose argument structure differs from that of the deriving verb were grouped according to the meaning of the prefix. Thus, all verbs belonging to a certain group share common semantics and argument structure. Different prefixes might have similar semantics, and such meanings make up semantic clusters.

In general, there are three possibilities of valence-change in a verb: (i) addition of new arguments; (ii) rearrangement of arguments; and (iii) deletion of arguments. As the analyzed data show, Lithuanian verbal prefixes are mainly involved into the first two types of valence change, and, thus, belong to valency-increasing operations. In Lithuanian valency increase is also realized by causativization via suffixation, see more in Arkadiev & Pakerys (2015).

This paper is structured as follows: first, I discuss all cases of transitivization, i.e. when adding a prefix introduces a new obligatory direct object. Using the notion of the applicative formation, I describe various types of accusative-marked

4. I chose this dictionary over the Dictionary of the Lithuanian language (*Lietuvių kalbos žodynas*, LKŽ, <http://www.lkz.lt>) because the latter has numerous entries from dialectal or Old Lithuanian sources. However, DLKŽ is not completely free of them either, as will become clear in the following discussion.

arguments that can be added to the verb's argument structure as a result of prefixation: landmark, distance and temporal arguments. I also discuss various meanings such as 'covering', 'elimination' etc. within which new arguments can be added to the verb. In Section 3 I focus on the rearrangement of the verb's arguments caused by adding a prefix, and all cases when an added prefix triggers syntactic alternations. Finally in Section 4 I conclude the paper.

2. Addition of new arguments: Transitivity via applicativization

2.1 Introductory remarks

The transitivity function of verb prefixes includes all cases of argument structure change when the addition of a prefix to an intransitive verb makes it transitive, i.e. the derived verb requires an obligatory object argument, usually marked by the accusative case.⁵ That is, in this paper I use transitivity as a rather narrow notion based on marking and syntactic features of a verb's argument as opposed to a broader understanding of transitivity as a discourse-determined global property of clauses, see Hopper & Thompson (1980). Prefixal transitivity is never purely formal but rather accompanies certain changes in the semantics of the verb. For instance, in (6a) the verb *eiti* 'to go' is intransitive, but when the prefix *ap-* is added, the derived verb acquires a distributive meaning 'to visit (many people)' and has an obligatory argument marked by the accusative, cf. (6b).

- | | | | | | |
|--------|--------------|----|------------------------|---------------|-----------------|
| (6) a. | <i>ei-ti</i> | b. | <i>ap-ei-ti</i> | <i>vis-us</i> | <i>draug-us</i> |
| | go-INF | | PRV-go-INF | all-ACC.PL.M | friend-ACC.PL |
| | 'to go' | | 'to visit all friends' | | |

The first aim of this paper is to understand which prefixes can transitivity verbs. The second goal is to define which meanings the transitivity prefixed verbs have, and how their semantics is related to transitivity. My final goal has to do with the remarks on prefix transitivity made by the Grammar of Lithuanian, Ambrazas (ed) (2005, 2006). Here are the main points: (i) verbs are transitivity by prefixes "without ever involving semantic causativization"; (ii) the direct object of a derived transitive "usually has a specifying or limiting force", the most regular

5. In Lithuanian direct objects can sometimes be marked by the genitive, e.g. with the verbs *ieškoti* 'to look for', *laukti* 'to wait' etc., discussed by Holvoet & Judžentis (2004:74–75). The same can be said about the object of some prefixal verbs, e. g. cumulative *pri-* verbs, cf. *pri-rašyti laišky* 'to write (many) letters', where *laišky* is marked by the genitive.

case being when prefixed verbs of motion require an object with a spatial meaning, and (iii) the semantic role of the subject (agent) of prefixed derived verbs does not change, so “transitivity here is only external, formal”.⁶ No syntactic tests proving the status of newly added or rearranged arguments are given. Thus, the last aim of this paper is to evaluate the syntactic status of the accusative-marked argument required by prefixed transitive verbs.

If the two first questions can be answered simply by analyzing all prefixed verbs, the last one requires more elaborate understanding of Lithuanian syntax. Here is the list of direct objecthood tests we apply for Lithuanian; some of them are discussed by Holvoet & Judžentis (2004), Holvoet & Semėnienė (2005):

- i. “elimination”: the direct object has to be obligatory and usually cannot be dropped (unless the object can be reconstructed from the context);
- ii. genitive of negation: when the predicate is negated, the marking of the direct object changes from the accusative to the genitive (see e.g. Arkadiev 2015).

- (7) a. *nu-kirt-au* *med-į*
 PRV-fell-PST.1SG tree-ACC.SG
 ‘I felled the tree’
- b. *ne-nu-kirt-au* *medži-o* / **med-į*
 NEG-PRV-fell-PST.1SG tree-GEN.SG tree-ACC.SG
 ‘I didn’t fell the tree’

- iii. passivization: a transitive verb can be passivized promoting the direct object to the subject position, cf. Examples (8) and (9).

- (8) *j-is* *raš-o* *knyg-ą*
 3-NOM.SG.M write-PRS.3 book-ACC.SG
 ‘He is writing a book’

- (9) *Tada j-is* *man* *pa-aiškin-o,*
 then 3-NOM.SG.M 1SG.DAT PRV-explain-PST.3
kad tai j-o *raš-om-a* *knyg-a...*
 that this 3-GEN.SG.M write-PP.PRS-NOM.SG.F book-NOM.SG
 ‘Then he explained to me that this book is being written by him...’

(DLKT)

6. The first two points are quoted directly from the grammar published in English, see Ambrazas (ed) (2006: 226). The last point is a translation of the following extract from the grammar published in Lithuanian: “Taigi ir tranzityvumas čia tėra išorinis, formalus”, Ambrazas (ed) (2005: 287).

iv. reflexives: according to the description of Baltic reflexive verbs by Geniušienė (1987), Lithuanian reflexives (except benefactive and partitive reflexives⁷) cannot have direct objects; cf. Examples (10), where the argument denoting the landmark can be expressed only by a prepositional phrase, and (13), where the same argument of a non-reflexive verb can also be marked by the accusative.

- (10) a. ***per-si-ris-ti* *kiem-ą*
 PRV-REFL-roll-INF yard-ACC.SG
 b. *per-si-ris-ti* *per* *kiem-ą*
 PRV-REFL-roll-INF through yard-ACC.SG
 ‘to cross the yard by rolling’

v. second object: one transitive verb cannot have two direct-object arguments, cf. Examples (11) where the verb *pernešti* ‘to carry across’ can have only a landmark argument expressed by PP, although the landmark can be marked by the accusative with the originally intransitive verbs as illustrated in (13b).

- (11) a. ***per-neš-ti* *vaik-ą* *gatv-ę*
 PRV-carry-INF child-ACC.SG street-ACC.SG
 b. *per-neš-ti* *vaik-ą* *per* *gatv-ę*
 PRV-carry-INF child-ACC.SG through street-ACC.SG
 ‘to carry a child across the street’

To describe the transitivity caused by verbal prefixes I will use the term *applicative*. Applicative is a means “to allow the coding of a thematically peripheral argument or adjunct as a core-object argument” (Peterson 2007: 1). The example (12) from Ainu illustrates such a process: an adjunct describing location and expressed by PP in (12a) becomes a core argument after an applicative marker is added to the verb in (12b).

- (12) Ainu
 a. *Poro cise ta horari*
 big house in live
 b. *Poro cise e-horari*
 big house APPL-live
 ‘He lives in a big house’

(Shibatani 1996: 159)

7. I.e. when the reflexive affix has benefactive meaning, cf. *atsinešti kėdę* ‘to bring a chair for oneself’, or describes a situation when the object is a part of the subject, cf. *nusiprausti veidą* ‘to wash oneself’s face’.

To my knowledge, this term has never been applied to verbal prefixation in Baltic, yet it seems appropriate. The verb *eiti* 'to go' is intransitive and can take a prepositional adjunct as in (13); however once it takes, for instance, the preverb *per-*, the adjunct becomes a core argument marked by the accusative.

- (13) a. *ei-ti* *PER* *GATV-Ē*
 go-INF across street-ACC.SG
 'to go across the street'
- b. *per-ei-ti* *GATV-Ē*
 go-INF street-ACC.SG
 'to cross the street'

In the next few sections I will show how this term can be applied to transitivity via prefixation, i.e. I will discuss instances when a prefix added to a verb stem makes a peripheral (non-obligatory) argument or adjunct obligatory and marked by the accusative. The structure of the section is as follows: it starts with the spatial meanings of prefixes that introduce new accusative-marked arguments denoting landmark or distance, then the secondary (metaphorical, metonymical etc.) meanings of the prefixes, such as temporal meanings, covering, filling, distributive etc., are discussed. This section also considers the morphosyntactic status of the added argument, specifically whether it complies with the properties of direct objects outlined above, and, thus, whether we are really dealing with transitivity by means of prefixation.

2.2 Spatial meanings of prefixes

2.2.1 Landmark applicative argument

The first group includes meanings specifying a route of motion whose manner is named by the verb base. These prefixes are usually combined with verbs of motion. When a prefix with such a meaning is added to an originally intransitive verb, the derived verb takes an argument marked by the accusative. This argument designates a landmark in relation to which the subject moves.

In Table 4 I list all such prefixes, define their meanings and supply for each of them examples with three verbs of motion: *bēgti* 'to run', *eiti* 'to go' and *plaukti* 'to swim; to sail' with their argument structure.

- (14) – *Pil-ki-te*, – *tar-ē* *Bertlef-as* *ir* *direktori-us* *ap-ēj-o*
 pour-IMP-2PL say-PST.3 Bertlef-NOM and director-NOM.SG PRV-go-PST.3
 stal-q, *pil-dam-as* *vyn-q* *į* *tušči-as* *taur-es*.
 table-ACC.SG pour-CVB-M.SG wine-ACC.SG into empty-ACC.PL glass-ACC.PL
 'Fill them up, said Bertlef, and the director walked around the table pouring
 wine into empty glasses.' (DLKT)

Table 4. Lithuanian verb prefixes with 'landmark' applicative function

Prefix	Meaning	Derived verbs (argument structure)
<i>ap-</i>	'moving around smth; passing by smth; moving in front of smth; moving along smth'	X (NOM), V, (<i>aplink</i> 'around') Y (ACC) <i>apibėgti</i> 'to run around smth' <i>apeiti</i> 'to go around smth' <i>apiplaukti</i> 'to swim around smth' etc., cf. (14)
<i>per-</i>	'crossing (over or across) smth'	X (NOM), V, (<i>per</i> 'across; over') Y (ACC) <i>pereiti</i> 'to cross smth walking' <i>perbėgti</i> 'to cross smth running' <i>perplaukti</i> 'to cross smth swimming' etc., cf. (15)
<i>pra-</i>	'passing by smth'	X (NOM), V, (<i>pro</i> 'through') Y (ACC) <i>prabėgti</i> 'to run by smth' <i>praeiti</i> 'to walk by smth' <i>praplaukti</i> 'to swim by smth' etc., cf. (16)
<i>pri-</i>	'approaching smth'	X (NOM), V, Y (ACC) / <i>prie</i> 'at' Y (GEN) <i>pribėgti</i> 'to approach running' <i>prieiti</i> 'to approach walking' <i>priplaukti</i> 'to approach swimming' etc., cf. (17)

- (15) *Daukint-is per-šok-o griov-į,*
 Daukintis-NOM PRV-jump-PST.3 ditch-ACC.SG
pri-spaud-ė kumšč-i-us prie šonkaul-i-ų...
 PRV-press-PST.3 fist-ACC.PL to rib-GEN.PL
 'Daukintis jumped over the ditch and pressed his fists to his ribs...' (DLKT)

- (16) *Lift-as leid-o-si žemyn, pra-važiav-o rūš-į*
 elevator-NOM.SG let-PST.3-RFL down PRV-drive-PST.3 basement-ACC.SG
ir su-stoj-o.
 and PRV-stop-PST.3
 'The elevator was going down, it passed the basement and stopped.' (DLKT)

- (17) *J-ie pri-važiav-o gimdym-o nam-us.*
 3-NOM.PL.M PRV-drive-PST.3 give_birth.ACN-GEN.SG house-ACC.PL
 'They approached the maternity hospital.' (DLKT)

Addition of these prefixes transfers the adjunct expressed by a prepositional phrase into the direct object slot (note that the preposition used with the intransitive non-prefixed verb is often a correlate of the prefix of the transitive verb). This process can be schematically shown as follows: $\text{non-pref Verb}_{\text{intr}} \langle A: \text{Sbj}; P: \text{PP} \rangle \rightarrow \text{pref Verb}_{\text{tr}} \langle A: \text{Sbj}; P: \text{DO} \rangle$, cf. the following examples:

- (18) a. *ei-ti* APLINK NAM- \check{A} → *ap-ei-ti* NAM- \check{A}
 go-INF around house-ACC.SG PRV-go-INF house-ACC.SG
 ‘to go around the house’
- b. *ei-ti* PER GATV- \check{E} → *per-ei-ti* GATV- \check{E}
 go-INF across street-ACC.SG PRV-go-INF street-ACC.SG
 ‘to go across the street’
- c. *bėg-ti* PRO TILT- \check{A} → *pra-bėg-ti* TILT- \check{A}
 run-INF through bridge-ACC.SG PRV-run-INF bridge-ACC.SG
 ‘to run through the bridge’
- d. *važiuo-ti* PRIE MIŠK-O → *pri-važiuo-ti* MIŠK- \check{A}
 drive-INF at forest-GEN.SG PRV-drive-INF forest-ACC.SG
 ‘to drive to the forest’

The object of all of these prefixed verbs can also be a prepositional phrase (the same one that occurs with the non-prefixed verb) with basically the same meaning, cf. (19), thus, the promotion of these applicative arguments to direct objecthood is optional.

- (19) a. *ap-ei-ti* APLINK NAM- \check{A}
 PRV-go-INF around house-ACC.SG
 ‘to walk around the house’
- b. *per-ei-ti* PER GATV- \check{E}
 PRV-go-INF across street-ACC.SG
 ‘to cross the street’
- c. *pra-bėg-ti* PRO TILT- \check{A}
 PRV-run-INF past bridge-ACC.SG
 ‘to pass the bridge running’
- d. *pri-važiuo-ti* PRIE MIŠK-O
 PRV-drive-INF at forest-GEN.SG
 ‘to approach the forest driving’

Note that the landmark argument can be optionally marked as a direct object only with originally intransitive verbs, cf. (20). While the landmark object of the originally intransitive verb *važiuoti* ‘to drive’ can be marked either by a prepositional phrase or as a direct object in the accusative (20a), the landmark of the transitive verb *nešti* ‘to carry’ can only be expressed by a prepositional phrase in (20b) due to the ban on two direct objects with one verb.

- (20) a. *per-važiuo-ti* (per) tilt- \check{q}
 PRV-drive-INF across bridge-ACC.SG
 ‘to drive across the bridge’
- b. *per-neš-ti* vaik- \check{q} per tilt- \check{q}
 PRV-carry-INF child-ACC.SG across bridge-ACC.SG
 ‘to carry the child across the bridge’

The accusative-marked landmark argument of the *pri-* verbs is limited to certain objects. N. Sližienė (1994) suggests that only inanimate objects can be marked as a direct object landmark with *pri-*verbs, but she is inconsistent in her approach since she marks the direct object of the verbs *pribėgti* ‘to approach by running’ and *prieiti* ‘to approach by walking’ as **-Anim**, but, according to her, the direct object of the verb *privažiuoti* ‘to approach by driving’ can be both animate and inanimate, cf. (21) where the landmark is the *Stonys* family (PL *Stoniai*).

- (21) *Netrukus pri-važiuo-si-me Stoni-us, pas j-uos*
 soon PRV-drive-FUT-1PL Stonys-ACC.PL at 3-ACC.PL.M
ir per-nakvo-si-me
 and PRV-stay_overnight-FUT-1PL
 ‘Soon we’ll come to the Stonys, and we’ll spend the night at their house’,
 example from Sližienė (1998:268)

My suggestion is that the landmark of the verbs with the prefix *pri-* can only be a motionless object, cf. Examples (22). Thus, the word *Stoniai* in (21) rather designates the place where the family lives. This limitation probably has to do with the semantics of the prefix: prototypically a moving object cannot be approached.

- (22) a. *pri-važiuo-ti stov-inči-q mašin-q*
 PRV-drive-INF stand-PA.PRS-ACC.SG.F car-ACC.SG
 ‘to approach a standing car’
 b. **pri-važiuo-ti jud-anči-q mašin-q*
 PRV-drive-INF move-PA.PRS-ACC.SG.F car-ACC.SG
 ‘to approach a moving car’

It is worth mentioning that the prefix *da-*, widely used in colloquial speech and dialects but not accepted by the codified standard language (the State commission of the Lithuanian language advises avoiding the prefix *da-* as a possible loan from Slavic languages; see <http://www.vlkk.lt/lit/lt/klaidos/zodziu>), can also add an accusative-marked landmark object with a meaning similar to that of the *pri-*verbs, see (23). Such an ability of the prefix *da-* is lacking in its counterpart in the Slavic languages and might be a result of its interference with the Lithuanian prefix *pri-*, see Kozhanov (2014:257–258). The use of this non-standard prefix will not be further analyzed.

- (23) *Da-joj-au dvar-el-j, vart-eli-ai*
 PRV-ride-PST.1SG mansion-DIM-ACC.SG gate-DIM-NOM.PL
už-kel-t-i
 PRV-lift-PP.PST-NOM.PL.M
 ‘I approached the mansion, the gates are closed’ (LKŽ)

2.2.2 Distance applicative object

Another prefix that can add an accusative-marked argument to the verb valence is *nu-* as in (24). Its meaning can be roughly described as ‘covering distance by V-ing’, V being a verb of motion, cf. *nubėgti* ‘to cover a certain distance by running’, *nueiti* ‘to cover a certain distance by walking’, *nuplaukti* ‘to cover a certain distance by swimming’ etc.

- (24) *Pirm-asis traukin-ys nu-važiav-o 961 km atstum-q,*
 first-NOM.SG.M.DEF train-NOM.SG PRV-drive-PST.3 961 km distance-ACC.SG
o antr-asis tik 248 km.
 and second-NOM.SG.M.DEF only 248 km
 ‘The first train has covered a distance of 961 km, and the second one only one of 248 km.’ (DLKT)

The prefix *nu-* differs from the previous prefixes in that it does not refer to a route of motion. The added argument designates the distance covered (the manner of motion is denoted by the verb root). This argument is also possible with non-prefixed intransitive verbs, see example (25), but there it is non-obligatory; for more information on the ambiguity of such arguments in regard to transitivity see Holvoet & Judžentis (2004: 69–75). The distance object is obligatory for verbs with the prefix *nu-* and cannot be dropped without changing the verb’s meaning, cf. intransitive *nueiti* ‘to go away’:

- (25) a. *ei-ti (du kilometr-us)*
 go-INF two kilometer-ACC.PL
 ‘to walk for two kilometers’
 b. *nu-ei-ti #(du kilometr-us)*
 go-INF two kilometer-ACC.PL
 ‘to cover two kilometers by walking’
 c. *nu-ei-ti į kit-q nam-q*
 go-INF in other-ACC.SG house-ACC.SG
 ‘to go (away) to another house’

It is worth noting that in colloquial speech the prefix *pra-* is often used with the same meaning, cf. (26).

- (26) *Nuo t-o laik-o testuoj-am-i bang-ų*
 from that-GEN.SG.M time-GEN.SG test-PP.PRS-NOM.PL.M wave-GEN.PL
planeri-ai jau pra-plauk-ė keliasdešimt kilometr-ų.
 glider-NOM.PL already PRV-sail-PST.3 few_tens kilometer-GEN.PL
 ‘Since that time the wave gliders under test have already covered a few tens of kilometers.’⁸

8. <http://www.jura24.lt/lt/naujienos/ivairenybes/ramiajame-vandenynne-bangomis-varomu-robotu-zygis-395288>
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Such use is believed to be the result of Slavic influence (namely of Russian *pro-*) and is considered “a serious language mistake” by the State commission of the Lithuanian language; see <http://www.vlkk.lt/lit/klaidos/zodyno4.html>. Hence, this non-Standard use of the prefix *pra-* will not be considered in the further discussion.

A similar instance is the arguments added to attenuative verbs derived by the prefix *pa-*. Their general meaning is ‘to cover a small distance by V-ing’, see (27), V being a verb of motion, cf. the verbs *paėiti* ‘to walk a bit’, *pabėgti* ‘to run a bit’, *paaplaukti* ‘to swim a bit’ etc.

- (27) *Su-pyk-ęs* *j-is* *pa-ėj-o* *kel-is*
 PRV-get_angry-PA.PST.NOM.SG.M 3-NOM.SG.M PVB-go-PST.3 few-ACC.PL.M
žingsni-us atgal ir pa-žiūrėj-o ė virš-ų.
 step-ACC.PL back and PRV-look-PST.3 into top-ACC.SG
 ‘He got angry, took a few steps back and looked up.’

2.2.3 Status of the added spatial argument

In this section I will discuss the syntactic status of the spatial applicative object, comparing the landmark and the distance arguments.

In order to define the status of the added accusative-marked arguments I apply the transitivity tests discussed in the introduction to this section (see 2.1) to the various prefixed verbs. The results are shown in Table 5 (“+” means the accusative marked object passes the test, and “-” means it does not).

Table 5. Direct object test (spatial meanings)

Test	Landmark				Distance	Attenuative
	<i>ap-</i>	<i>per-</i>	<i>pra-</i>	<i>pri-</i>	<i>nu-</i>	<i>pa-</i>
Elimination	+	+	+	+	+	-
GenNeg	+	+	+	+	+	+
Passive	+	+	+	+	+	-
Reflexive	+	+	+	-?	-	-
Second object	+	+	+	+	-	-

Table 5 clearly shows that the objects introduced by the prefixes *ap-*, *per-*, *pra-*, *pri-*, by the prefix *nu-*, and by the prefix *pa-* are syntactically different. I will give one further example for each group of spatial meanings and for each test.

The landmark and distance arguments are required by the prefixed verbs in question and usually cannot be omitted. When the distance object of a *nu-* verb is dropped, the meaning of the verb changes; see (25) above. A landmark object should be distinguished from the arguments and adverbs specifying the path or route of motion, as in (28) and (29).

- (28) *J-is ap-ėj-o aplink ir už-stoj-o keli-ą.*
 3-NOM.SG.M PRV-go-PST.3 around and PRV-stand-PST.3 way-ACC.SG
 ‘He walked around and blocked the way.’ (DLKT)
- (29) *Mūsy gaid-ys su-sverd-i, api-bėg-a plat-ų*
 our rooster-NOM.SG PRV-totter-3PRS PRV-run-3PRS wide-ACC.SG
rat-ą ir vėl į atak-ą.
 round-ACC.SG and again in attack-ACC.SG
 ‘Our rooster totters, makes a big round and attacks again.’ (DLKT)

These objects and adverbs are also possible with non-prefixed verbs; see (30), and can be used together with the landmark object and even with originally transitive verbs; see (31).

- (30) *Mači-au, kaip j-is kil-o ir leid-o-si,*
 see-PST.1SG how 3-NOM.SG.M rise-3SG.PST and descend-PST.3-RFL
kaip bėg-a garb-ės rat-ą
 how run-3SG.PRS honor-GEN.SG round-ACC.SG
pa-si-puoš-ęs čempion-o popon-u.
 PRV-RFL-decorate-PA.PST.NOM.SG.M champion-GEN.SG horsecloth-INS.SG
 ‘I saw him going up and down, making an honor lap decorated with the
 champion’s horsecloth.’⁹
- (31) *...baikeri-ų klub-o „Stranger MC“ motociklinink-ai nugalėtojų-ą*
 biker-GEN.PL club-GEN.SG Stranger MC biker-NOM.PL winner-ACC.SG
su kit-ais etap-o prizinink-ais ap-vež-ė
 with other-INS.PL round-GEN.SG prize_taker-INS.PL PRV-drive-PST.3
garb-ės rat-ą.
 honor-GEN.SG lap-ACC.SG
 ‘...the bikers from the biker club Stranger MC made an honor lap with the
 winner and other prize takers of the round.’¹⁰

Unlike landmark and distance arguments, the objects of attenuative verbs derived by the prefix *pa-* fail the elimination test. As is shown in (32), the object describing the distance can be omitted without any change in the meaning of the verb. It is also indicative that the attenuative verbs can also be accompanied by adverbs, for example, *nedaug* ‘a bit’.

- (32) *Jis (nedaug / keli-s žingsni-us) pa-ėj-o ir su-stoj-o.*
 3-NOM.SG.M a_bit few-ACC step-ACC.PL PRV-go-PST.3 and PRV-stop-PST.3
 ‘He walked for a while / a few steps and stopped.’

9. <http://satinas.niceboard.org/t577-cornet-obolensky-vokietija>

10. <http://www.sekunde.lt/automanija/cempionate-paaisejo-pirmasis-nugaletojas/>

The objects introduced by all analyzed prefixes pass the test for the genitive of negation, i.e. when the verb is negated, the case changes to the genitive, see (33) and (34) for landmark and distance arguments respectively.

- (33) *Girt-as vyriški-s ne-per-šok-o lauž-o*
 drunk-NOM man-NOM.SG NEG-per-jump-PST.3 fire-GEN.SG
 ‘The drunk man did not manage to jump over the fire’ (DLKT)

- (34) *Nors po nusileidim-o j-is ne-nu-važiav-o*
 although after going_down-GEN.SG 3-NOM.SG.M NEG-PRV-drive-PST.3
nė centimetr-o...
 not centimeter-GEN.SG
 ‘Although after he descended he didn’t go any further not even for a centimeter...’¹¹

Attenuative verbs pass this test as well as in (35), however, this does not say much about the status of the accusative marked object, since when in semantic scope of negation optional distance adjuncts also react to the negation of non-prefixed verbs, cf. (36).

- (35) *J-is ne-pa-ėj-o keli-ų žingsni-ų / *keli-s žingsni-us*
 3-NOM.SG.M NEG-PRV-go-PST.3 few-GEN step-GEN.PL few-ACC step-ACC.PL
ir su-stoj-o.
 and PRV-stop-PST.3
 ‘He took but a few steps and stopped.’

- (36) *Niek-as ne-bėg-a šimt-o metr-ų*
 nobody-NOM.SG NEG-run-PRS.3 hundred-GEN.SG meter-GEN.PL
greiči-au už mane
 fast-COMP than 1SG.ACC
 ‘Nobody runs a hundred meters faster than me’

The verbs with the landmark and distance objects can be passivized, thus promoting the accusative-marked object to the position of a subject, see (37)–(38).

- (37) *At-ėj-us iki tak-o pabaig-os, tur-i bū-ti*
 PRV-go-PA.PST till path-GEN.SG end-GEN.SG have-3SG.PRS be-INF
pri-ei-t-as koks nors tašk-as,
 PRV-go-PP.PST-NOM some-NOM.SG INDEF point-NOM.SG
ap-si-suk-ęs tur-i maty-ti graž-ų
 PRV-RFL-turn-PA.PST.NOM.SG.M have-2SG.PRS see-INF beautiful-ACC.SG.M
peizaž-q.
 landscape-ACC.SG

11. http://www.technologijos.lt/n/mokslas/astronomija_ir_kosmonautika/S-27718

‘When you come to the end of the path, some point has to be reached, [and] having turned around, you should see a beautiful landscape.’¹²

- (38) ...*bu-s* *steb-im-as* *moksleivi-ų*
 be-FUT.3 watch-PP.PRS-NOM.SG.M student-GEN.PL
nu-ei-t-as *atstum-as...*
 PRV-go-PP.PST-NOM.SG.M distance-NOM.SG
 ‘...the distance covered by students will be watched...’¹³

Distance objects of the attenuative *pa*-verbs, however, cannot be promoted to the subject position, cf. (39).

- (39) **pa-ei-t-i* *kel-i* *žingsni-ai*
 PRV-go-PP.PST-NOM.PL.M few-NOM.PL.M step-NOM.PL
 intended ‘a few steps that have been made’

A landmark related to a reflexive verb cannot be expressed by an accusative-marked object but by a prepositional phrase, cf. (40), in which the landmark *kažkokia duobė* ‘some pit’ can be introduced only by a preposition.

- (40) ...*automobil-is t-uo* *met-u* *per-si-rit-o*
 car-NOM.SG that-INS.SG time-INS.SG PRV-RFL-roll-PST.3
per *kaž-koki-ą* *duob-ę.*
 across INDEF-what-ACC.SG pit-ACC.SG
 ‘...at that time the car rolled over some pit.’ (DLKT)

Distance accusative objects differ from landmark objects in that they can be used with reflexive intransitive verbs as well, cf. (41) and (42).

- (41) *Kamuol-ys nu-si-rit-o* *du metr-us.*
 ball-NOM.SG PRV-RFL-roll-PST.3 two meter-ACC.PL
 ‘A ball rolled down for two meters.’
- (42) ...*juodu* *pa-si-rit-o* *kel-is* *žingsni-us tolyn...*
 they.both.NOM.M PRV-RFL-roll-PST.3 few-ACC.PL.M step-ACC.PL further
 ‘Both of them rolled for a few steps further’¹⁴

A reflexive attenuative verb cannot be passivized (as any other attenuative verb), see (43), but distance objects of passivized reflexive *nu*- verbs are accepted by some speakers (although not by all), cf. (44).

12. <http://archyvas.vz.lt/news.php?strid=1050&id=1536628>

13. <http://grynas.delfi.lt/mintys/zingsniamaciai-pades-ivertinti-lietuvos-moksleiviu-fizini-aktyvuma.d?id=59492125>

14. <http://www.tekstai.lt/zurnalas-metai/282-walter-benjamin-franzas-kafka-deimtosioms-jomirties-metinms-1>

(43) **pa-si-ris-t-i* *kel-i* *žingsni-ai*
 PRV-RFL-roll-PP.PST-NOM.PL few-NOM.PL.M step-NOM.PL
 intended 'a few steps covered by rolling'

(44) ?*Nu-si-ris-t-i* *du* *metr-ai*
 PRV-RFL-roll-PP.PST-NOM.PL two.NOM meter-NOM.PL
 'two meters covered by rolling'

None of the verbs with the prefixes *ap-*, *per-*, *pra-* and *pri-* can have a second object, i.e. when a prefix is added to a transitive verb its landmark can be expressed only by a prepositional phrase, see (45), where the landmark *stalas* 'table' cannot be expressed as a direct object.

(45) *Ap-neši-au* *duon-q* **stal-q* / *aplink stal-q*
 PRV-carry-PST.1SG bread-ACC.SG table-ACC.SG around table-ACC.SG
 'I carried bread around the table'

The *nu-* verbs however allow a second accusative NP as in (46), similarly to the *pa-* attenuative verbs, cf. (47).

(46) *Nu-neši-au* *vaik-q* *du kilometr-us*
 PRV-carry-PST.1SG child-ACC.SG two kilometer-ACC.PL
 'I carried a child for two km'

(47) *Pa-neš-k* *mano lagamin-q* *nors por-q*
 PRV-carry-IMP.2SG my suitcase-ACC.SG at_least couple-ACC.SG
aukšt-ų.
 floor-GEN.PL
 'Carry my suitcase at least a couple of floors.'

If these verbs are passivized the core original object (not the distance-denoting one) is promoted to the subject position, cf. (48)–(49).

(48) *Vaik-as buv-o mano nu-neš-t-as* *du kilometr-us*
 child-NOM be-PST.3 my PRV-carry-PP.PST-NOM.SG.M two kilometer-ACC.PL
 'The child was carried by me for two kilometers'

(49) *Lagamin-as pa-neš-t-as* *tik keli-s metr-us*
 suitcase-NOM.SG PRV-carry-PP.PST-NOM.SG.M only few-ACC metre-ACC.PL
 'The suitcase was carried only for a few meters'

It can be concluded from the results of the direct-objecthood tests that the landmark objects introduced by the prefixes *ap-*, *per-*, *pra-* and *pri-* syntactically behave as a direct object, thus the applicative formation adding this (argument) slot should be regarded as transitivization (also because it cannot apply to transitive verbs). The distance arguments added by the prefix *nu-* behave as canonical direct objects only to some extent, because their ability to be used with reflexives

and originally transitive verbs distinguishes them from the typical direct objects. They rather look like obligatory adjuncts, see e.g. Grimshaw & Vinker (1993) and Goldberg & Ackerman (2001), spatial accusative phrases added to the argument structure of the base verb. But when these phrases are introduced to the valence of intransitive verbs they behave syntactically as a direct object.

Accusative-marked distance arguments of attenuative *pa-* verbs are not direct objects at all: they can be omitted, cannot be promoted to the subject position when the verb is passivized, and can be attached to transitive and reflexive verbs.

2.3 Temporal meanings of prefixes

Spatial movement is often metaphorically perceived as temporal, so it is not surprising that verb prefixes have temporal meanings too. Within certain temporal meanings of prefixes an accusative-marked argument can also be added to originally intransitive verbs. The added temporal object describes the time during which the action V is completed. In other words, an optional temporal adjunct, possible with a non-prefixed verb, becomes an obligatory argument as in (50).

- (50) a. *dirb-ti* (*dvi dien-as*) b. *ati-dirb-ti* *dvi dien-as*
 work-INF two day-ACC.PL PRV-work-INF two day-ACC.PL
 'to work for two days' 'to spend two days working'

The list of verbal prefixes that introduce temporal objects is given in Table 6, see also the second column of the table *Meaning* for semantic differences. Each meaning is exemplified by three verbs: *būti* 'to be', *dirbti* 'to work' and *sėdėti* 'to sit'.

Table 6. Lithuanian verb prefixes with temporal applicative meanings

Prefix	Meaning	Derived verbs
<i>at-</i>	'doing V for a certain period of time' (usually as an obligation)	<i>atbūti</i> 'to serve for a certain period of time' <i>atidirbti</i> 'to work for a certain period of time' <i>atsėdėti</i> 'to stay a certain period of time' etc., see (51)
<i>iš-</i>	'doing V for a certain period of time' (covering the time all through the duration)	<i>išbūti</i> 'to stay for a certain period of time' <i>išdirbti</i> 'to work for a certain period of time' <i>išsėdėti</i> 'to stay for a certain period of time' etc., see (52)
<i>pra-</i>	'doing V for a certain period of time' (often with no result)	<i>prabūti</i> 'to stay for a certain period of time' <i>pradirbti</i> 'to work for a certain period of time' <i>prasėdėti</i> 'to stay for a certain period of time' etc., see (53)

- (51) ...*siuvėj-ui tek-o at-sėdė-ti tr-is*
 tailor-DAT.SG be.gotten-PST.3 PRV-sit-INF three-ACC
par-as, nes su-pyk-ęs
 period_of_24_hours-ACC.PL because PRV-get_angry-PA.PST.NOM.SG.M
į-žeid-ė policinink-q
 PRV-insult-PST.3 policeman-ACC.SG
 ‘The tailor had to serve a three-day term of imprisonment, because when he
 got angry he insulted a policeman’ (DLKT)
- (52) *Vaik-as iš-klyk-ė vis-q nakt-į*
 child-NOM.SG PRV-cry-PST.3 all-ACC.SG night-ACC.SG
 ‘The child cried for the whole night’ (DLKT)
- (53) *Vis-q nakt-į pra-drebėj-o, pa-si-slėp-ęs*
 all-ACC.SG night-ACC.SG PRV-shiver-PST.3 PRV-RFL-hide-PA.PRS.NOM.M.SG
nuo žandarm-ų
 from policeman-GEN.PL
 ‘He shivered for the whole night hiding from policemen’ (DLKŽ)

Temporal objects include not only the time-marking nouns (hour, week and so on) but also activities lasting for a certain period of time, cf. (54) with the intransitive base verb.

- (54) *D. Rodmen-as už spyr-į televizij-os operatori-ui*
 D. Rodman-NOM for kick-ACC.SG television-GEN.SG cameraman-DAT.SG
jau „at-sėdėj-o“ 8 rungtyn-es iš numatyt-ų 11-os
 already PRV-sit-PST.3 8 game-ACC.PL from assigned-GEN.PL 11-GEN
 ‘D. Rodman has already spent 8 games out of the assigned 11 off the field for
 kicking a cameraman’ (DLKT)

In the analyzed data from DLKŽ there were a number of verbs with the prefix *per-* that have a similar meaning, cf. (55).

- (55) *Tr-is mėnesi-us be darb-o per-buv-au*
 three-ACC month-ACC.PL without job-GEN.SG PRV-be-PST.1SG
 ‘I spent three months without a job’ (DLKŽ)

However, these *per-* verbs are not used in this meaning in colloquial speech. The native speakers I consulted gave them a negative evaluation. These verbs probably entered DLKŽ from dialects (where they could be borrowed from Polish), thus I distinguish this meaning from the idea of ‘surpassing’ discussed below.

2.3.1 Status of the added temporal argument

In this section I will discuss the status of the added temporal argument with these verbs and compare the results with the attenuative verbs with the prefix *pa-*, which can also occur with accusative temporal phrases, as in (56); in such instances they are traditionally referred to as delimitatives.

- (56) *Deja, vyr-as tik vien-ą dien-ą pa-dirb-o*
 unfortunately man-NOM.SG only one-ACC.SG day-ACC.SG PRV-work-PST.3
ir iš-važiav-o...
 and PRV-drive-PST.3
 ‘Unfortunately, the man worked only for a day and left...’ (DLKT)

In Table 7 the results of applying the direct-objecthood tests to the listed prefixed verbs are given.

Table 7. Direct object test: added temporal argument

Test	<i>at-</i>	<i>iš-</i>	<i>pra-</i>	<i>pa-</i>
Elimination of O	+	+	+	-
GenNeg	+	+/-	+/-	+
Passive	+	+	+	-
Reflexive	-	-	-	-
Second object	+	+	-	-

Of these prefixal verbs only the delimitative *pa-* verbs can drop the object without changing their semantics; see (57).

- (57) *J-is (truputį / dvi minut-es) pa-sėdėj-o ir*
 3-NOM.SG.M a_bit two.ACC.F minute-ACC.PL PRV-sit-PST.3 and
iš-ėj-o
 PRV-go-PST.3
 ‘He sat for a bit (two minutes) and left’

All temporal objects react to the negation of the verb and change their marking to the genitive case, cf. (58).

- (58) *Tu net trejų metų lager-yje ne-at-buv-ai*
 you.NOM even three-GEN year-GEN.PL camp-LOC.SG NEG-PRV-be-PST.2SG
 ‘You didn’t even spend three years in the camp’ (DLKT)

However, one can find many examples on the Internet where the object of the negated verbs is marked by the accusative, see (59).

- (59) ...*pirm-q kart-q ten j-is irgi ne-iš-buv-o*
 first-ACC.SG time-ACC.SG there 3-NOM.SG.M also NEG-PRV-be-PST.3
vis-q laik-q, grįž-o į nam-us...
 all-ACC.SG time-ACC.SG return-PST.3 in house-ACC.PL
 'The first time he also didn't spend all the time there, he returned home'¹⁵

Most native speakers I consulted would not approve this example. In some contexts though almost everyone says that both accusative and genitive are possible, cf. (60) with the emphatic negative particle *nė*; see also some remarks by Holvoet & Judžentis (2006: 70–71).

- (60) a. *J-is ne-iš-sėdėj-o nė penki-ų sekundži-ų /*
 3-NOM.SG.M NEG-iš-sit-PST.3 not five-GEN.PL second-GEN.PL
nė penki-as sekund-es
 not five-ACC.PL.F second-ACC.PL
 b. *Jis ne-iš-sėdėj-o penki-ų sekundži-ų / ??penki-as*
 he.NOM NEG-PRV-sit-PST.3 five-GEN second-GEN.PL five-ACC
sekundes
 second-ACC.PL
 'He didn't even sit for five seconds'

Still, in all these cases the genitive is preferable.

The temporal object can also be passivized, see (61), unlike the object of the delimitative *pa-* verbs, cf. (62).

- (61) *P. Šakini-o aikštel-ėje iš-bū-t-as*
 P. Šakinis-GEN.SG playground-LOC.SG PRV-be-PP.PST-NOM.SG.M
laik-as viršij-o 27 minutes
 time-NOM.SG exceed-PST.3 27 minute-ACC.PL
 'The time spent by P. Šakinis at the playground exceeded 27 minutes'¹⁶

- (62) **Jo ten pa-bū-t-os keli-os valand-os*
 he-GEN.SG.M there PRV-be-PP.PST-NOM.PL.F few-NOM.PL.F hour-NOM.PL
 intended 'a few hours spent there by him'

The temporal objects introduced by the prefixes *at-*, *iš-*, *pra-* as well as the objects of the delimitative verbs can be used with the reflexives, cf. (63) and (64) respectively.

15. <http://www.vlmedicina.lt/2011/10/vaikai-del-mirusiu-tevu-gali-liudeti-ilga-laika/>

16. <http://www.eurobasket.lt/lt/naujienos/56325>

- (63) *Na štai, at-si-kankin-au dvi valand-as*
 well so PRV-RFL-suffer-PST.1SG two.ACC.F hour-ACC.PL
 ‘So I suffered for two hours [and I’m done now]’¹⁷
- (64) ...*autori-us pa-si-kankin-s bent keli-as dien-as*
 author-NOM.SG PRV-RFL-suffer-FUT.3 at_least few-ACC.PL.F day-ACC.PL
su pieštuk-u rank-oje...
 with pencil-INS.SG hand-LOC.SG
 ‘...the author will toil for at least a few days with a pencil in his hand...’
 (DLKT)

Reflexive prefixed verbs with temporal objects cannot easily be passivized, see (65), but this may be due to a lexical restriction.

- (65) ??*Vis-a dien-a mano pra-si-važinė-t-a*
 all-NOM.SG.F day-NOM.SG my PRV-RFL-drive-PP.PST-NOM.SG.F
 intended ‘the whole day spent by me driving’

The temporal objects added by the prefixes *at-* and *iš-* do not combine with the deriving transitive verbs, thus, there cannot be two objects, cf. (66). However, temporal objects introduced by the prefix *pra-* can be added to originally transitive verbs, cf. (67). This is similar to objects of delimitative verbs, cf. (68).

- (66) **iš-žiūrė-ti televizori-ų vis-ą dien-ą*
 PRV-watch-INF TV-ACC.SG all-ACC.SG day-ACC.SG
 intended ‘to watch TV for the whole day’
- (67) ...*galė-tų vis-ą dien-ą taip j-ą*
 can-IRR.3 all-ACC.SG day-ACC.SG so 3-ACC.SG.F
mam-yt-ė ir tėt-uk-as pra-nešio-ti.
 mother-DIM-NOM.SG and father-DIM-NOM.SG PRV-carry-INF
 ‘Mommy and daddy could carry her like that for the whole day’¹⁸
- (68) *J-is pa-žiūrė-j-o televizori-ų dvi valand-as*
 3-NOM.SG.M PRV-watch-PST.3 TV-ACC.SG two.ACC.F hour-ACC.PL
 ‘He watched TV for two hours’

The temporal object of the originally transitive *pra-* verbs cannot be promoted to the subject position in passives, cf. (69).

17. <http://www.supermama.lt/forumas/index.php?showtopic=238033&mode=threaded&pid=17849813>

18. <http://eitne.lt/2009/tinklarascio-naujagimiai-neda-treciasis-menuo/>

- (69) *Vaik-as vis-ą nakt-į mam-os*
 child-NOM.SG all-ACC.SG night-ACC.SG mother-GEN.SG
pra-nešio-t-as
 PRV-carry-PP.PST-NOM.SG.M
 ‘The child was carried by the mother for the whole night’

Thus, it appears clear that objects of delimitative verbs are not direct objects. The ability of temporal objects to combine with reflexive verbs, i.e. the fact that they fail the transitivity test, probably has to do with the status of the temporal accusatives. Both non-reflexive and reflexive non-prefixed verbs can also optionally have such an object. That is, the prefix does not open a new slot in the verb valence but rather makes it obligatory.

Although temporal accusative differs from direct objects, see Holvoet & Judžentis (2004: 70–71), the objects introduced by the prefixes *at-* and *iš-* syntactically are very similar to direct objects and can be in fact regarded as such. The prefix *pra-* adds a temporal argument to the argument structure of the base verb, including originally transitive verbs; thus, the process is not mere transitivity. The temporal object of the *pra-* verbs is parallel to the distance object of the *nu-* verbs discussed above,¹⁹ see Section 2.2.2. Although in this paper I will not compare Lithuanian prefixes with their Slavic counterparts, it is worth noting that the behavior of temporal objects of the Lithuanian *pra-* verbs is almost identical to that of those introduced by the Russian cognate prefix *pro-*, see Letučij (2012).

2.4 Other derived meanings

The spatial meanings of prefixes are generally assumed to constitute the core of the prefix semantics. Other new meanings are usually derived via metaphoric or metonymic shifts from the original spatial meanings of the prefix. For example, the prefix *ap-* adds to a verb the meaning ‘movement all over the landmark’ (which is itself an extension of the idea of ‘movement around the landmark’) as in (70). But once an animate object becomes the landmark, the derived verbs develop the meaning ‘to distribute V all over the whole object’, V being an action described by the verb root as in (71).

19. It should be recalled that in colloquial speech the *pra-* verbs can also add a distance argument.

- (73) ...*tėv-ai* *at-važiav-o* *vis-ų* *pa-si-im-ti*
 parent-NOM.PL PRV-drive-PST.3 all-GEN.PL PRV-RFL-take-INF
ir ap-rėk-ė *mokytoj-us*.
 and PRV-shout-PST.3 teacher-ACC.PL
 ‘...the parents came to take everybody and swore at the teachers.’ (DLKT)
- (74) *Vis-us* *savo keli-us* *aš* *jau iš-vaikščioj-au*,
 all-ACC.PL.M OWN way-ACC.PL 1SG.NOM already PRV-walk-PST.1SG
be-lik-o *tik t-as* *vien-as*.
 CNT-remain-PST.3 only that-NOM.SG.M one-NOM.SG.M
 ‘I’ve walked down all my roads, there is only that one left.’ (DLKT)
- (75) *J-i* *pri-vėm-ė* *vis-ų* *virtuv-ę*, *o aš*
 3-NOM.SG.F PRV-puke-PST.3 all-ACC.SG kitchen-ACC.SG and 1SG.NOM
turėj-au *plau-ti!*
 have-1SG.PST wash-INF
 ‘She puked all over the kitchen, and I had to wash it!’ (DLKT)
- (76) *Nejau ne-pa-men-i*, *kaip mus su-lij-o?*
 indeed NEG-PRV-remember-2SG.PRS how 1.ACC.PL PRV-rain-PST.3
 ‘Don’t you remember how we got poured over by rain?’ (DLKT)
- (77) *Keliautoj-us už-griuv-o* *snieg-as*
 traveler-ACC.PL PRV-fall-PST.3 snow-NOM.SG
 ‘The travelers got snowed on’ (DLKT)

As a result of the action directed at the whole object it becomes covered by the subject (with the prefixes *ap-*, *iš-* and *už-*), some substance (with the prefixes *pri-*, *su-* and *už-*) or activity (with the prefix *ap-*) expressed by the verb stem.

2.4.2 Filling

Another meaning leading to the promotion of a previously prepositional adjunct to the accusative-marked core object is filling. In Lithuanian this meaning is expressed by the prefix *pri-* which can be attached to both transitive and intransitive verbs, cf. (78). This prefix opens a new accusative-marked argument slot for peripheral adjuncts expressed by PP with the preposition *į* ‘into’, e. g. *pūsti į akis* ‘to blow into the eyes’.

This meaning is related to the rearrangement of arguments and syntactic alternation; see more in Section 3.

- (78) *Vėj-as* *pri-pūt-ė* *ak-is* *dulki-ų*
 wind-NOM.SG PRV-blow-PST.3 eye-ACC.PL dust-GEN.PL
 ‘The wind filled the eyes with dust.’ (DLKŽ)

This meaning is similar to ‘covering’ that can be expressed by the same prefix. The difference is that the *pri-* verbs describe not covering the surface of the object (the substance is not usually expressed) but filling the inside part of the object (the substance is marked by the genitive).

2.4.3 *Distributive*

The difference between the distributive meaning and covering is that the added distributive objects are often in the plural and specified by the word *visas* ‘all’. It is worth pointing out that these prefixes with distributive meaning can also be attached to transitive verbs, e.g. *apskalbti visas šeima* ‘to do laundry for the whole family’, *perklausyti visas dainas* ‘to listen to all songs’, in such cases they rearrange the verb’s arguments, see also Section 3. The intransitive verbs these prefixes can be attached to usually describe motion or search. The prefixes that can add distributive meaning to verbs are listed in Table 9.

Original verbs usually have peripheral adjuncts introduced by the preposition *po* ‘along’ or *per* ‘through’, cf. (79).

- (79) a. *važiuo-ti po mišk-us* → *ap-važiuo-ti mišk-us*
 drive-INF along forest-ACC.PL PRV-drive-INF forest-ACC.PL
 ‘to drive around forests’ ‘to visit (all) forests’
- b. *landžio-ti po kamp-us* → *iš-landžio-ti kamp-us*
 snoop_around-INF along corner-ACC.PL PRV-drive-INF corner-ACC.PL
 ‘to snoop around’ ‘to search, to look into all corners’
- c. *važiuo-ti per gimin-es* → *per-važiuo-ti gimin-es*
 drive-INF along relative-ACC.PL PRV-drive-INF relative-ACC.PL
 ‘to visit relatives’ ‘id.’

The object of the *per-* verbs can also be expressed by PP as with the original verb, cf. (80).

- (80) ...*taip ir trauki-a per-ei-ti ar bent nors per-važiuo-ti*
 so and pull-PRS.3 PRV-go-INF or at_least at_least PRV-drive-INF
per vaikščio-t-as viet-as...
 through walk-PP.PST-ACC.PL.F place-ACC.PL
 ‘...it is so tempting to walk or at least to drive around known places...’²⁰

- (81) *Vis-us kaimyn-us ap-ėj-au*
 all-ACC.PL.M neighbor-ACC.PL PRV-go-PST.1SG
 ‘I visited all my neighbours’ (DLKŽ)

20. <http://www.delfi.lt/gyvenimas/istorijos/rarbaciauskaite-mintys-apie-gyvenimo-prasme-kasdiene-aktorius-duona.d?id=52738481>

Table 9. Applicative distributive meanings

Prefix	Meaning	Verbs X (NOM), V, Y (ACC)
<i>ap-</i>	'to distribute action V over a set of objects' (usually 'to visit' with verbs of motion)	<i>apeiti</i> 'to visit by walking', <i>apvažiuoti</i> 'to visit by driving' etc.; see (81)
<i>iš-</i>	'to distribute action V over a set of objects' (usually 'to search')	<i>išlandžioti</i> 'to search everywhere', <i>išnarinėti</i> 'to search'; see (82)
<i>per-</i>	'to distribute action V over a set of objects' (usually 'to visit' with verbs of motion)	<i>pvažiuoti</i> 'to visit by driving'; see (83)

- (82) *Kaimynini-ų nam-ų vaik-ai, pa-dėj-ę*
 near_by-GEN.PL house-GEN.PL child-NOM.PL PRV-help-PA.PST.NOM.PL.M
ieško-ti mergait-ės, iš-landžioj-o apylink-es.
 search-INF girl-GEN.SG PRV-snoop_around-PST.3 surrounding-ACC.PL
 'The children from the near-by houses helping to find the girl looked around
 the surroundings.' (DLKT)

- (83) *Reikė-s kada per-važiuo-ti gimin-es.*
 need-FUT.3 when PRV-drive-INF relative-ACC.PL
 'We should visit the relatives some time.' (DLKŽ)

2.4.4 Surpassing

The first group of extraversive arguments includes objects which are being surpassed by the subject. These meanings can be easily linked to the spatial meanings. For instance, the prefix *per-* designates a movement in space in which the landmark is crossed. After crossing the landmark, the subject becomes farther or over the object. From this spatial idea the meaning 'surpassing' is developed as in (89). In Table 10 all prefixes that have such meanings are listed. The meanings of these prefixes are not usually productive and are lexically limited, hence only one example is given for each.

Table 10. Applicative meanings based on the idea of 'surpassing'

Prefix	Verbs X (NOM), V, Y (ACC)
<i>ap-</i>	<i>aplošti</i> 'to beat in a game', see (84)
<i>iš-</i>	<i>išaugti</i> 'to grow out of smth', see (85)
<i>į-</i>	<i>įveikti</i> 'to overcome', see (86)
<i>nu-</i>	<i>nusverti</i> 'to outweigh', see (87)
<i>pra-</i>	<i>pragyventi</i> 'to outlive', see (88)
<i>per-</i>	<i>peraugti</i> 'to outgrow', see (89)

- (84) *Vis-us ap-loši-au kort-omis.*
all-ACC.PL.M PRV-play-PST.1SG card-INS.PL
'I beat everyone at cards.' (DLKŽ)
- (85) *Vaik-as iš-aug-o švark-q*
child-NOM.SG PRV-grow-PST.3 coat-ACC.SG
'The child outgrew the coat.'
- (86) *Didžiuoj-uo-si sav-imi, kad į-veiki-au t-q*
be_proud-PRS.1SG-RFL self-INS that PRV-do-PST.1SG that-ACC.SG
įprot-į...
habit-ACC.SG
'I am proud of myself for overcoming that habit...'. (DLKT)
- (87) *Pirm-ose rungty-ėse Alyt-aus „Snaigė“ nu-galėj-o*
first-LOC.PL.F game-LOC.PL Alytus-GEN Snaigė-NOM PRV-can-PST.3
Vilni-aus krepšini-o mokykl-q 85:44
Vilnius-GEN basketball-GEN.SG school-ACC.SG
'Snaigė from Alytus beat the basketball school from Vilnius 85:44 in the first game' (DLKT)
- (88) *J-is pra-gyven-o vis-us savo amžinink-us.*
3-NOM.SG.M PRV-live-PST.3 all-ACC.PL.M RFL.POSS contemporary-ACC.PL
'He outlived all his contemporaries.' (DLKŽ)
- (89) *Sūn-us per-aug-o tėv-q.*
son-NOM.SG PRV-grow-PST.3 father-ACC.SG
'The son grew taller than his father.' (DLKŽ)

2.4.5 Creation of an object

The arguments introduced by prefixes in these meanings are objects created as a result of the action presented by the verb root. All prefixes that add such objects are listed in Table 11.

The added argument usually cannot be used with the original intransitive verb.

Table 11. Objects created by action

Prefix	Verbs X (NOM), V, Y (ACC)
<i>iš-</i>	<i>išmąstyti</i> 'to think up', <i>išsvajoti</i> 'to dream up' (mental verbs), see (90) <i>išsėdėti</i> 'to produce smth sitting', <i>išverksti</i> 'to produce smth crying'
<i>pra-</i>	<i>pravažinėti</i> 'to make a road by driving', see (91)
<i>su-</i>	<i>sugalvoti</i> 'to devise', <i>sumąstyti</i> 'to think (of)' (mental verbs), see (92)

- (90) *Aš tave iš-svajoj-au ilg-omis sopuli-o nakt-imis...*
 1SG.NOM 2SG.ACC PRV-dream-PST.1SG long-INS.PL.F pain-GEN.SG night-INS.PL
 ‘I dreamed you up during long nights of pain...’ (DLKT)
- (91) *Vairuotoj-ai pra-važinėj-o keli-ą pat-ys.*
 driver-NOM.PL PRV-drive-PST.3 road-ACC.SG oneself-NOM.PL.M
 ‘The drivers made a road themselves by driving’²¹
- (92) ...*kalbinink-as J. Jablonsk-is su-galvoj-o naujadar-ą*
 linguist-NOM.SG J. Jablonskis-NOM PRV-think-PST.3 neologism-ACC.SG
degtuk-ai ir daugel-į kit-ų nauj-ų
 matches-NOM.PL and multitude-ACC.SG other-GEN.PL new-GEN.PL
žodži-ų.
 word-GEN.PL
 ‘Linguist J. Jablonskis came up with the neologism *degtukai* ‘matches’ and lots
 of other new words.’ (DLKT)

2.4.6 Acquisition

The arguments introduced by these prefixes are usually objects obtained by the action described in the verb root. The prefixes and examples are presented in Table 12.

Original intransitive verbs usually cannot have these arguments.

Table 12. Acquired objects

Prefix	Verbs X (NOM), V, Y (ACC)
<i>iš-</i>	<i>iškovoti</i> ‘to gain by fighting’, see (93)
<i>pri-</i>	<i>prigyventi</i> ‘to acquire (gradually) during lifetime’, see (94)
<i>už-</i>	<i>uždirbti</i> ‘to earn’, <i>užkariauti</i> ‘to conquer’, see (95)

- (93) *Ir kartu visi iš-kovoj-ome laisv-ę*
 and together all-NOM.PL.M PRV-fight-PST.1PL freedom-ACC.SG
Lietuv-ai.
 Lithuania-DAT
 ‘And we all together gained freedom for Lithuania’²²

21. <http://klaipeda.diena.lt/dienrastis/miestas/vairuotojai-pravazinejo-kelia-patys-253465>

22. <http://aurimasnauseda.lt/?p=4289>

- (94) *Šeiminink-ai prie pilsudskinink-ų*
 landlord-NOM.PL at Pilsudski_supporter-GEN.PL
pri-gyven-o ne-maž-q turt-q...
 PRV-live-PST.3 NEG-small-ACC.SG property-ACC.SG
 ‘Landlords acquired a lot of property during the time of Piłsudski’ (DLKT)
- (95) *Latvi-ų žem-es už-kariav-o kryžiuoči-ai.*
 Latvian-GEN.PL land-ACC.PL PRV-make_war-PST.3 crusader-NOM.PL
 ‘The crusaders conquered Latvian lands.’ (DLKT)

2.4.7 Elimination

The arguments introduced by the prefixes listed below describe objects that cease to exist as a result of the action. Thus, this meaning is opposite to the ones described in the two previous sections. Prefixes that add such objects are listed in Table 13.

Table 13. Objects eliminated by action

Prefix	Verbs X (NOM), V, Y (ACC)
<i>iš-</i>	<i>išloti</i> ‘to bark away’
<i>nu-</i>	<i>nulyti</i> ‘to wash away’, <i>nupūsti</i> ‘to blow away’, etc., see (96)
<i>pra-</i>	<i>pragerti</i> ‘to drink away’, <i>prakortuoti</i> ‘to lose playing cards’, <i>praūžti</i> ‘to revel away’ etc., see (98)

- (96) *Iš-loj-o j-į šun-ys iš kiem-o.*
 PRV-bark-PST.3 3-ACC.SG.M dog-NOM.PL from yard-GEN.SG
 ‘The dogs barked him out of the yard.’ (DLKŽ)
- (97) *Liet-us nu-lij-o vis-as dulk-es*
 rain-NOM.SG PRV-rain-PST.3 all-ACC.PL.F dust-ACC.PL
 ‘Rain washed away all the dust’ (DLKŽ)
- (98) *Vėliau žied-q j-is par-dav-ė, o pinig-us*
 later ring-ACC.SG 3-NOM.SG.M PRV-give-PST.3 and money-ACC.PL
pra-gėr-ė.
 PRV-drink-PST.3
 ‘Later he sold the ring and spent all the money on drinking.’ (DLKT)

2.4.8 *Damage*

Certain prefixes introduce arguments that describe objects that are damaged by the action presented in the verb root. Many of these verbs are lexicalized. The prefixes and examples are given in Table 14.

Table 14. The objects of damage

Prefix	Verbs X (NOM), V, Y (ACC)
<i>iš-</i>	<i>išrėkti</i> 'get hoarse from crying', see (99)
<i>nu-</i>	<i>nugulėti</i> 'to make smth numb by lying', <i>nusėdėti</i> 'to make smth numb by sitting', <i>mustovėti</i> 'to make smth numb by standing', see (100)
<i>pra-</i>	<i>prarėkti</i> 'to hurt one's throat by yelling', <i>praverkti</i> 'to cry one's eyes out', see (102)
<i>su-</i>	<i>sugulėti</i> 'to damage by lying', see (101)
<i>už-</i>	<i>užbelsti</i> 'to damage by knocking', see (103)

(99) *K-o taip rėk-i, dar gerkl-ę iš-rėk-s-i.*
 what-GEN so shout-2SG.PRS even throat-ACC.SG PRV-shout-FUT-2SG
 'What are you yelling for, you'll hurt your throat [get hoarse etc.]' (DLKŽ)

(100) *J-is vis tiek kėl-ė-si saky-dam-as, kad šon-us*
 3-NOM.SG.M anyway get_up-PST.3-RFL say-CVB-SG.M that side-ACC.PL
nu-gulėj-ęs, be t-o, jauči-a-si geriau.
 PRV-lay-PA.PST.NOM.SG.M without that-GEN.SG.M feel-PRS.3-RFL better
 'He was getting up anyway, saying he was all numb from lying so much, but still felt better.' (DLKT)

(101) *Su-sėdėj-ai man skar-el-ę.*
 PRV-sit-PST.2SG 1SG.DAT scarf-DIM-ACC.SG
 'You sat on my scarf and rumbled it.' (DLKŽ)

(102) *Iš-alk-au, pa-si-dar-ė bais-u, pra-rėki-au*
 PRV-get_hungry-PST.1SG PRV-RFL-make-PST.3 scary-N PRV-shout-PST.1SG
gerkl-ę, o j-os vis nēr.
 throat-ACC.SG and she-GEN still NEG.be.PRS.3
 'I was starving, and fear fell upon me, I screamed until my voice got hoarse, but she still wasn't there.' (DLKT)

(103) *Lėktuv-o ūžim-as už-trenki-a aus-is.*
 plane-GEN.SG noise-NOM.SG PRV-crash-PRS.3 ear-ACC.PL
 'The noise of the airplane deafens the ears.' (DLKŽ)

2.4.9 Status of the added object

All accusative-marked arguments introduced by the prefixes discussed, according to the transitivity tests discussed in 2.1, pass the test and thus can be regarded as direct objects, so each test will be supplied with only one example.

All these objects cannot be dropped without changing the verb's meaning. They are marked by the genitive when the verb is negated as in (104)–(105).

- (104) *Žmon-ės skubė-dav-o nu-im-ti derli-ų nuo*
 people-NOM.PL hurry-HAB-PST.3 PRV-take-INF harvest-ACC.SG from
lauk-ų, kol j-o ne-su-lij-o liet-us...
 field-GEN.PL before 3-GEN.SG.M NEG-PRV-rain-PST.3 rain-NOM.SG
 'People hurried to take the harvest from the fields before it would be poured
 over by rain' (DLKT)
- (105) *Bendrov-ė pernai peln-o ne-už-dirb-o...*
 firm-NOM.SG last_year profit-GEN.SG NEG-PRV-work-PST.3
 'The firm did not obtain any profit last year...' (DLKT)

The objects under discussion can also be promoted to the subject position when the verb is passivized as in (106) and (107), but such a change is often restricted due to their semantics, as in (108).

- (106) *Iš-landžio-t-os vis-os netoliese*
 PRV-snoop_around-PP.PST-NOM.PL.F all-NOM.PL.F nearby
tek-anči-o Nevėži-o pakrant-ės,
 flow-PA.PRS-GEN.SG.M Nevėžis-GEN.SG shore-NOM.PL
ap-vaikščio-t-os Nomeik-ų sodyb-os
 PRV-walk-PP.PST-NOM.PL.F Nomeika-GEN.PL mansion-GEN.SG
apylink-ės.
 surroundings-NOM.PL
 'All sides of the nearby-flowing Nevėžis river are searched, the surroundings
 of the Nomeika mansion are covered by walking.' (DLKT)
- (107) *...Rom-os imperij-a buv-o už-kariau-t-a*
 Rome-GEN empire-NOM.SG be-PST.3 PRV-fight-PP.PST-NOM.SG.F
barbar-ų.
 barbarian-GEN.PL
 '...the Roman Empire was conquered by the barbarians.' (DLKT)

These objects cannot be used with reflexive or originally transitive verbs.

2.5 Concluding remarks

The analysis presented in Section 2 shows that almost all (except the prefix *par-*) derivational prefixes can add an obligatory accusative-marked argument to the argument structure of originally intransitive verbs. According to Lehmann & Verhoeven (2006:477), the main semantic function of applicative is centralization of an argument, i.e. an increase of affectedness of the argument. However, as applied transitivity tests show, the applicativization of verbs does not necessarily mean that all added arguments are direct objects. Optional temporal and distance arguments of the attenuative and delimitative *pa-* verbs do not pass transitivity tests at all. The distance arguments of the *nu-* verbs and temporal arguments of the *pra-* verbs behave as direct objects only with originally intransitive verbs, but look more like obligatory adjuncts when added to argument structure of originally transitive verbs. All other added arguments (first of all landmark) syntactically behave as direct objects although sometimes they may have lexical restrictions.

Prefixes are indeed able to transitivize the verbs they are attached to. Out of twelve prefixes only two, *pa-* and *par-*, cannot add a direct object to intransitive verbs.

In most cases prefixes assign a new direct object slot for PPs or distance and temporal adjuncts that can be optionally used with deriving transitive verbs. However, there are instances when a prefix can add an object that cannot be used with the deriving verb. To explain such instances, the notion of extraversive formation, proposed in Lehmann & Verhoeven (2006), can be used. As a result of this formation, an argument closely related to the semantics of the base verb can be added to the verb's argument structure. For instance, the Tolai verb *momo* 'to drink' in (109) is intransitive, but an affix added to the verb opens a new direct object slot as in (109).

(109) Tolai

- a. A *vavina i momo.*
 ART woman SBJ.3 drink
 'The woman drank (something).'
- b. A *vavina i mom-e ra tava.*
 ART woman SBJ.3 drink-TRR ART water
 'The woman drank the water.'

Mosel (1991:248), cited in Lehmann & Verhoeven (2006:479)

Lehmann & Verhoeven also specify that the extraversive often adds an object of result (2006:480). Indeed, it is worth mentioning that the analysis of the Slavic and Germanic prefixed or particle verbs as resultative constructions has been already proposed, although under different names, cf., for example, event composition, see Pustojevsky (1991), lexical subordination, see Spencer & Zaretskaya (1998),

conflation, see McIntyre (2003). So, the resultative construction in *She wiped the table clean* consists of two predications: the primary, “core” is *wipe*, and the secondary subordinated predicate is *clean*. Indeed, such verbs are able to express two causally related events with one verbal stem, for example, McIntyre analyzes the particle verb *sleep off* in the English sentence *I slept off a hangover* as DO(X, SLEEP) & _{CAUSE} BECOME(NONEXIST(Y)) (2003: 123). Lithuanian prefixed verbs can be analyzed in much the same fashion, e.g. the verb *nuvalyti* in (110) can be presented as DO(X, VALYTI ‘clean’) & _{CAUSE} BECOME(CLEAN(Y)) where the second predication is introduced by the prefix. The same analysis can be applied to originally intransitive verbs, e.g. *nupūsti* in (110), DO(X, PŪSTI ‘blow’) & _{CAUSE} BECOME(NONEXIST(Y)).

- (110) a. *nu-valy-ti stal-q* b. *nu-pūs-ti dulk-es*
 PRV-clean-INF table-ACC.SG PRV-blow-INF dust-ACC.PL
 ‘to clean the table’ ‘to blow away the dust’

Such verbs differ from classic causatives because the causer remains the same as in the deriving verb. The resultative analysis can be applied to applicative objects as well.

Applicative constructions usually have overt morphological marking and show some degree of regularity. Lithuanian verbal prefixes have related applicative (syntactic) and semantic (lexical) functions. Hence, the syntactic change happens not just when a prefix is added, but only with a certain meaning of the prefix (and possibly only with a part of the verbs).

3. Rearrangement of arguments and their marking and syntactic alternations

Addition of prefixes can also lead to rearrangement of a verb’s arguments. The main patterns of such rearrangement will be outlined in this section.

It is difficult to describe all possible rearrangements of arguments because in many instances the prefix can significantly change the meaning of the verb root and thus license a completely different argument structure, e.g. the verb *klausyti* ‘to listen’ has a subject marked by the nominative and the direct object marked by the genitive or accusative, but the prefixed verb *priklausyti*²³ means ‘to belong’ which in its argument structure has the subject marked by the nominative and the indirect object (possessor) marked by the dative. I will not further consider such instances but focus rather on the regular patterns.

23. This verb is probably an old loan translation of the German verb (*an*)gehören ‘to belong’, which is derived from *hören* ‘to listen’.

The first pattern is related to the case-marking of the verb's arguments. For example, when a prefix is added, a group of verbs marking their objects with the genitive case, such as *laukti* 'to wait', *ieškoti* 'to look for' etc. can assign accusative marking to their objects. This change happens with verbs having the distributive meaning, e.g., the verb *klausyti* 'to listen' can mark its object with either genitive or accusative, but when used with the prefix *per-* in the distributive meaning only the accusative marking is available, cf. (111).

- (111) *Per-klaus-ėme keli-as plokštel-es*
 PRV-listen-PST.1PL few-ACC.SG.F record-ACC.SG
 'We listened to a few records'

Another possible change occurs when the meaning of the attached prefix has to do with indefinite amounts of the object's referent. In such cases the case marking changes from the accusative to the genitive. The amount can be large (cumulative meaning expressed by the prefix *pri-*) or small, limited (partitive meaning), see more in Seržant (2014). The cumulative meaning can scope over nominative subject or over direct object, cf. (112) and (113) respectively.

- (112) *Ant suol-ų pri-gul-ę žmon-i-ų*
 on bench-GEN.PL PREF-lie_down-PA.PST.N people-GEN.PL
 'Many people lay down on the benches' (DLKŽ)
- (113) *Turėj-au idėj-ų, pri-raši-au scenarij-ų.*
 have-PST.1SG idea-GEN.PL PRV-write-1SG.PST script-GEN.PL
 'I've had ideas, I've written lots of screenplays.' (DLKT)

The partitive genitive is also possible (although not required) with the meaning 'segregation of some part' expressed by the prefix *at-*, see (114), 'work directed at a subset of objects' expressed by the prefix *pra-*, see (115).

- (114) *At-si-pil-k pien-o vakarien-ei.*
 PRV-RFL-pour-IMP.2SG milk-GEN.SG supper-DAT.SG
 'Pour some milk for supper.' (DLKŽ)
- (115) *Pra-skalbi-au rank-omis paklodži-ų,*
 PRV-wash-PST.1SG hand-INS.PL sheet-GEN.PL
t-am kart-ui už-tek-s
 that-DAT.SG.M time-DAT.SG PRV-be_enough-FUT.3
 'I hand-washed some sheets, it will be enough for this time.' (DLKT)

Another pattern includes cases when a direct object and a peripheral adjunct are swapped. This happens when prefixes with the meaning 'covering', see (116)–(117), and 'filling', see (118), are attached to transitive verbs.

- (116) a. *klijuo-ti plakat-us ant sien-os*
 glue-INF poster-ACC.PL on wall-GEN.SG
 ‘to stick posters up on the wall’
 b. *ap-klijuo-ti sien-q plakat-ais*
 PRV-glyue-INF wall-ACC.SG poster-INS.PL
 ‘to cover the wall with posters’
 c. *iš-klijuo-ti sien-q plakat-ais*
 PRV-glyue-INF wall-ACC.SG poster-INS.PL
 ‘id.’
- (117) a. *sodin-ti medži-us sodyb-oje*
 plant-INF tree-ACC.PL mansion-LOC.SG
 ‘to plant trees at the estate’
 b. *už-sodin-ti sodyb-q medži-ais*
 PRV-plant-INF mansion-ACC.SG tree-INS.PL
 ‘to plant the estate with trees’
- (118) a. *pil-ti vanden-į į butel-į*
 pour-INF water-ACC.SG into bottle-ACC.SG
 ‘to pour water into a bottle’
 b. *pri-pil-ti butel-į vanden-s*
 PRV-pour-INF bottle-ACC.SG water-GEN.SG
 ‘to fill the bottle with water’

Another interesting feature of verbal prefixes in Lithuanian is that they can license certain syntactic alternations, i.e. allow the same verb to have different syntactic realization of its arguments; for more information on syntactic alternation in Lithuanian see Lenartaitė (2011).

Again these alternations are available with the meanings ‘covering’ and ‘filling’ expressed by the prefixes *ap-*, *už-* and *pri-*.

The prefixes *ap-* and *už-* license the alternation of the subject and direct object, see (119) and (120) for the prefix *ap-*; see also Lenartaitė (2011:187–189) and (121) for the prefix *už-*.

- (119) *Teritorij-a ap-aug-o krūm-ais ir medži-ais...*
 territory-NOM.SG PRV-grow-PST.3 bush-INS.PL and tree-INS.PL
 ‘The territory was overgrown with bushes and trees.’ (DLKT)
- (120) *...vis-us šit-uos kryži-us ap-aug-o žol-ės,*
 all-ACC.PL.M this-ACC.PL cross-ACC.PL PRV-grow-PST.3 grass-NOM.PL
žalči-ai.
 grass-snake-NOM.PL
 ‘...all these crosses were covered by grass and grass-snakes.’ (DLKT)

- (121) *Lageri-ai ir samd-om-ų darbinink-ų gyvenviet-ės*
 camp-NOM.PL and hire-PP.PRS-GEN.PL worker-GEN.PL settlement-NOM.PL
už-aug-o taig-a.
 PRV-grow-PST.3 taiga-INS.SG
 ‘The camps and settlements of hired workers got covered by taiga.’ (DLKT)

The intransitive verbs with the prefix *pri-* also change the roles of arguments, the landmark becomes the subject, cf. (122) and (123); see more on this type of subject alternation in Lenartaitė (2011: 140–146).

- (122) *Kiem-as pri-važiav-o sveči-ų*
 yard-NOM.SG PRV-drive-PST.3 guest-GEN.PL
 ‘The yard became filled with the guests.’
- (123) *Mes ne-kalt-i, kad į š-į krašt-q*
 we.NOM NEG-guilty-NOM.PL.M that in this-ACC.SG.M area-ACC.SG
pri-važiav-o ir baltarusi-ų.
 PRV-drive-PST.3 and Belarusian-GEN.PL
 ‘We are not guilty that Belarusians also came to this area.’ (DLKT)

Thus, Lithuanian verb prefixes adding new meaning to verbs can also trigger the change of the arguments’ marking (genitive to accusative and accusative to genitive), rearrange a verb’s arguments (a process related to the applicativization discussed above) and also license different syntactic realizations of a verb’s arguments. The change in a verb’s argument structure can be typical for a group of verbs to which a prefix can be added with the same meaning or only for certain lexicalized verbs.

4. Conclusions

Most Lithuanian verbal prefixes, exceptions being the prefixes *pa-* and *par-*, can affect the argument structure of the verb.

The main effect that Lithuanian verb prefixes can have on the verb’s argument structure is addition of a new slot to the verb’s valency. This operation can be called applicative, i.e. when a prefix is added, a peripheral argument or adjunct becomes obligatory and is marked by the accusative. This new argument often behaves syntactically as a direct object, so the instances when such arguments are added to the argument structure of originally intransitive verbs can be regarded as transitivization. That is, applicativization via prefixal derivation belongs to valency-increasing operations.

However, not all applicative accusative-marked arguments added by prefixes are syntactically direct objects. The most interesting type is the distance and temporal objects added by the *nu-* and *pra-* prefixes respectively. On the one hand, when added to originally intransitive verbs these arguments are very similar to direct objects: for instance, they can be promoted to subject position when the verb is passivized. On the other hand, the same arguments should be regarded as obligatory accusative-marked adjuncts with originally transitive verbs because they can be combined with another direct object or with reflexive verbs. The rest of the accusative-marked arguments added to a verb's valency via applicativization pass all transitivity tests and thus syntactically are direct objects. Some of these arguments can be promoted only optionally, for instance, the landmark applicative objects can be marked by the accusative or expressed as PP.

In general, applicativization via prefixation is a lexically and semantically restricted operation. The verbs which can participate in applicative formation can be limited semantically, for example, landmark applicative objects usually occur only with verbs of motion. Certain prefixes can add new direct objects only to certain lexemes; in such instances the object is usually semantically associated with the verb stem, e.g. *išverkti akis* 'to cry one's eyes out'.

Transitivization of verbs is often a part of a broader process, which is a rearrangement of arguments in a verb's valency. The same prefixes add the same arguments both to originally transitive and intransitive verbs, e.g. the 'filling' meaning of the prefix *pri-*: *pripūsti akis* (eyes-ACC.PL) *dulkių* (dust-GEN.PL) 'to fill eyes with dust by blowing' and *pripilti butelį* (bottle-ACC.SG) *vandens* (water-GEN.SG) 'to fill a bottle with water', *pūsti* being an intransitive verb and *pilti* transitive.

Adding of a prefix can also change the case marking of the arguments, for instance, assign the genitive instead of the accusative, cf. *rašyti knygą* (book-ACC.SG) 'to write a book' and *prirašyti knygy* (book-GEN.PL) 'to write (many) books'.

Certain meanings of the prefixes *ap-*, *už-* and *pri-*, namely 'covering' and 'filling', can also license the syntactic alternation, i.e. when these prefixes are added to a verb its arguments can be expressed differently on the syntactic level.

Abbreviations

ACC	accusative	DAT	dative
ACN	action noun	DEF	definite
APPL	applicative	DIM	diminutive
ART	article	F	feminine
CMP	comparative	GEN	genitive
CVB	converb	IMP	imperative

INDEF	indefinite	PL	plural
INF	infinitive	PP	passive participle
INS	instrumental	PRS	present tense
LOC	locative	PRV	preverb
M	masculine	PST	past tense
N	neuter	RFL	reflexive
NEG	negation	SBJ	subject
NOM	nominative	SG	singular
PA	active participle	TRR	transitivizer

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