

SPATIAL PREFIXES OF PAZAR LAZ:
A NANO-SYNTACTIC APPROACH

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SPATIAL PREFIXES OF PAZAR LAZ:
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DECLARATION OF ORIGINALITY

I, Ömer Eren, certify that

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ABSTRACT

Spatial Prefixes of Pazar Laz: A Nano-syntactic Approach

This study investigates the spatial prefixal system of Pazar Laz, an endangered South Caucasian language. Specifically, it aims to provide a descriptive and syntactic account of the spatial verbal prefixes of PL, which encode elaborate information regarding the location or direction of motion events. For this purpose, we first comprehensively describe the spatial prefixes of PL by reference to the two picture series, namely Topological Relations Picture Series (Bowerman & Pederson, 1992) and Picture Series (Felix, Witte & Wilkins, 1999). PL is then examined under the typological classification system developed in Talmy (2000) and it is argued that the status of PL as a satellite-framed language is questionable as opposed to what has been suggested by Kutscher (2011).

As opposed to the case in other satellite-framed languages like Germanic and Slavic, the spatial prefixes in PL exhibit selectivity with respect to the nature of the motion verbs they are compatible with. In order to account for this selectivity, we offer a classification for the motion verbs and the spatial prefixes in PL and then proceed to decompose both into their corresponding syntactic structures following Svenonius (2006), Folli and Ramchand (2005), Ramchand (2008) and Fabregas (2007). Based on this decomposition, we show that the possibility of using a dynamic spatial prefix with a motion verb seems to correlate with the presence of a Path projection within the lexical specification of the verb. The lexicalization of the relevant syntactic constructions are lastly analyzed under the framework of Nano-syntax (Starke, 2009 among others).

ÖZET

Pazar Lazcası'nın Yön Önekleri: Nano-sözdizimsel bir Yaklaşım

Bu çalışmada bir Güney Kafkas dili olan yok olma tehlikesi altındaki Lazca'nın Pazar lehçesindeki yön önekleri çalışılmaktadır. Hareket bildiren eylemlerde konum ve yön ile ilgili olarak ayrıntılı ve karmaşık bilgiler kodlayan ve fiillere bağlı biçimler olan yön önekleri için tanımlayıcı ve sözdizimsel bir analiz geliştirilmesi amaçlanmaktadır. Bu amaçlar doğrultusunda, öncelikle İlingesel İlişkiler Resim Serisi (Bowerman & Pederson, 1992) ve fiilerde konumsal ilişkileri inceleyen Resim Serisi'ne (Felix ve diğerleri 1999) referansla, Pazar Lazca'sının yön önekleri kapsamlı bir şekilde açıklanmakta ve tanımlanmaktadır. Daha sonra, Pazar Lazcası Talmy (2000) tarafından geliştirilen tipolojik sınıflandırma sistemi altında incelenmekte ve Kutscher (2011)'de iddia edilen aksine Lazca'nın Talmy'nin sınıflandırmasında 'uydu-çerçevesi' (satellite-framed) diller grubuna olmayabileceği öne sürülmektedir.

'Uydu-çerçevesi' diller grubuna ait olan Cermen ve Slav dillerinin aksine Pazar Lazca'sındaki yön önekleri beraber kullanıldıkları hareket eylemlerinin çeşitleri hakkında seçicilik göstermektedirler. Bu seçiciliğe açıklama getirmek amacıyla, Svenonius (2006), Folli ve Ramchand (2005), Ramchand (2008) ve Fabregas (2007)'de geliştirilen analizler ışığında Pazar Lazcası'ndaki yön önekleri ve hareket eylemleri öncelikle kendi aralarında gruplanmakta ve her bir örnek ve fiil grubu kendisine karşılık gelen sözdizimsel yapılara ayrıştırılmaktadır. Bu ayrıştırmaya dayanarak, dinamik (hareket bildiren) örneklerin sadece izlek (Path) içeren fiiller ile beraber kullanılabildiği gösterilmektedir.

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ABBREVIATIONS

1	1 st person
2	2 nd person
3	3 rd person
ABL	Ablative
Aff	Affirmative Particle
ALL	Allative
APPL	Applicative
CAUS	Causative
DAT	Dative
DMV	Directed Motion Verb
ERG	Ergative
IMPRF	Imperfective
INF	Infinitive
LOC	Locative
MV	Manner of Motion Verb
NOM	Nominative
OBJ	Object
PL	Plural
PRV	Pre-root vowel
PS	Picture Series
PST	Past
SF	Satellite framed
SG	Singular
SM	Spatial Marker

SUBJ	Subject
TRPS	Topological Relations Picture Series
TS	Thematic Suffix
VSC	Verb-Satellite Construction

CHAPTER 1

INTRODUCTION

1.1 The aim of the thesis

The aim of the current study is to provide a descriptive and syntactic account for the spatial prefixal system of a particular dialect of Laz, namely Pazar Laz (PL), which is an endangered language spoken in Turkey, within the framework of Nano-syntax.

Laz has been noted in the literature to have a very elaborate and developed prefixal system expressing spatial relations on the verb (Holinsky, 1991), which is fairly rare among the languages of the world that usually encode such information via case markers or via prepositions. The prefixes of PL are illustrated in (1):

(1) Bere {ama-/gama-/ce-/e-/go-/mo-}-u-l-u-n.

child.NOM SM-PRV-go-TS.IMPRF-3SG

‘The child is going in/out/down/up/around/towards the speaker (coming).’

The spatial prefixes in PL are examined in relation to Talmy’s motion event typology (2000a,b) and the position of PL in this classification system is investigated and further questioned. Primarily based on data concerning the interaction between the spatial prefixes and a specific class of verbs, namely verbs of motion, it is argued that PL might not fall into the satellite-framed language group as opposed to what has been suggested in Kutscher (2011). This study will therefore explore the issue of spatial relations and specifically try to answer the following questions:

- (i) What are the mechanisms that are used to express spatial relations in PL?
- (ii) Which particular kinds of spatial information are encoded in the spatial prefixes in PL? And, how can one classify these prefixes in a principled way based on their morpho-syntactic and semantic properties?

- (iii) What is the nature of the relationship between the spatial prefixes and the verbs on which they are dependent and together with which they form one unit?
- (iv) If the spatial prefixes do not combine with all types of motion verbs but only with a certain group of them, how can one account for in a principled manner these (non)co-occurrence facts?
- (v) Which particular languages does PL pattern with in terms of the strategies that are employed in general to express spatial relations? More specifically, what is the typological stance of PL in the motion event typology developed in Talmy (2000a,b)?

1.2 Demographic and typological background on Laz and PL

PL is one of the five dialects of Laz, which is an endangered and understudied language belonging to the South Caucasian language family together with Svan, Georgian and Mingrelian. It is mainly spoken in the southeast shore of the Black Sea in Turkey and also in a small part of Georgia. Among the members of the South-Caucasian linguistic family, Mingrelian and Laz are mostly related. Nevertheless, they are regarded as separate languages because of social, geographical and political issues. As for the dialects of Laz, it can be stated that there are five dialects of Laz, which could be classified into two groups as Eastern and Western Laz (Bucaklışı, 2000). The dialect that will be our concern in this study belongs to the Western branch together with the Ardeshen dialect (Kutscher, 2011).

The majority of the speakers of Laz are Turkish-Laz bilingual and approximately over the age of 30. The exact number of its speakers, on the other hand, is not known but estimated to vary between 30.000 and 50.000 (Kutscher,

2008; LaCroix, 2009). Due to the fact that the younger generations do not have growing access to this language, hence lack the opportunity to acquire or learn it, Laz remains as an endangered language, which is on the verge of extinction. As for the official preservation attempts for Laz, we can mention the new regulation of the National Ministry of Education (NME), which aims to offer Laz language classes to students as elective courses in pre-university level educational institutions. For this purpose, NME uses the language cousebook prepared by Laz Institute and supervised by a committee consisting of the faculty members of Boğaziçi University.

Early works on Laz involve dictionary studies (Bucaklışı & Uzunhasanoğlu, 1999). Among these, the most recent one is *Didi Lazuri Nenapuna* (Bucaklışı, Uzunhasanoğlu & Aleksiva, 2007) in which all dialects of Laz have been compiled with illustrative examples. In addition to dictionaries, there are descriptive grammars on Laz, in which the common aim is to write down the general properties of Laz and its dialects (Anderson, 1963; Kojima & Bucaklışı, 2003 among others).

As also mentioned before, the discussion in the current thesis is restricted to one particular dialect of Laz, namely PL, primarily spoken in the Pazar district of Rize. A linguistic description of PL, which is jointly written by the participants of the Field Methods course at Boğaziçi University, was edited in 2011 by Öztürk and Pöchtrager. In addition, there are three unpublished MA theses written on PL at Boğaziçi University. The first one of these is on the case system of PL (Gürpınar, 2000). Emgin's study (2009) investigates the complementation patterns in this dialect of Laz. Lastly, Demirok (2013) analyzes the interaction of case and agreement systems in PL. Theoretical works on Laz also involve Öztürk (2010, 2013) and Taylan and Öztürk (2014).

1.3 Data and methodology

In the current thesis, the entire set of the spatial prefixes and the verbal constructions involving them will be examined in a detailed way. Öztürk and Pöchtrager (2011) have identified 16 potential slots on the verbal complex in PL, which involve both prefixes and suffixes as respectively represented in Table (1) and Table (2):

Table 1. The Verbal Prefixal System of PL

Slot Number	1	2	3	4	5
Function of Prefixes	Affirmative particles	Spatial Prefixes	Person Markers	Valency-Relevant Pre-root vowels	Root

Table 2. The Verbal Suffixal System of PL

Slot Number	6	7	8	9	10	11	12	13	14	15	16
Function of Suffixes	Aug	Caus.			Thematic Suffixes	Imprf.	Subj	Pers	Cond	PL	Aux.

In the current study, we will only be concerned with the set of prefixes that occupy the second slot in the verbal complex, namely the spatial prefixes illustrated in Table 1. The prefixes occupying this slot are referred to as *spatial prefixes* since they encode information related to the direction, orientation and/or location of an event or entity as illustrated (2) below:

(2) Ma nca-şe k-e-v-u-l-ur- Ø.

cat.NOM tree.ALL Aff-SM-PRV-SUBJ.1SG-go-TS.IMPRF-1SG

‘I am climbing (going up) the tree.’

PL has a quite large set of spatial prefixes encoding highly complex spatial information. In Chapter 3, we will thoroughly discuss and introduce all of these prefixes with illustrative examples and also highlighting the differences and similarities between them. Leaving the specifics to the relevant chapter, the meanings encoded by the aforementioned prefixes can be summarized as follows: In a nutshell, the spatial prefixes in PL express 1) the axial orientation of the movement, i.e. whether the event proceeds vertically, horizontally (or diagonally), 2) whether the event is directed towards or away from the speaker (deixis), i.e. the thither-hither orientation, and lastly 3) the relative orientation of a specific object or entity that is involved in the event. These facts are respectively illustrated in the examples (3)-(5) below:

(3) K’at’u ey-u-l-u-n / gol-u-l-u-n.

cat.NOM SM-PRV-go-TS.IMPRF-3SG

‘The cat is going up (vertically) / forward (horizontally)’

(4) Ayşe m(o)-u-l-u-n / me-l-u-n.

Ayşe.NOM SM-PRV-go-TS.IMPRF-3SG

Lit: ‘Ayşe is going towards or away from the speaker.’

‘Ayşe is coming/ going.’

(5) Katu oxori-s {k’ots’o-/ ela- / mok’o- }ren.

cat.NOM house.NOM SM-is

‘The cat is in front of/ next to/ behind the house.’

The data that are used in this study have been collected for Associate Prof. Dr. Balkız Öztürk Başaran's project titled 'Spatial Prefixes in PL' registered with the number INAREK 2015/78 and approved on the 19th of October 2015 by Boğaziçi University's Ethics Committee.

To collect the data, we have mainly conducted one-on-one data elicitation sessions with native speakers of PL. Furthermore, we have also made use of the already existing sources, especially the most recent multi-dialectal dictionary of Laz (Bucaklışı, Uzunhasanoğlu & Aleksiva, 2007). Furthermore, in order to understand and describe the meanings associated with each spatial prefix and also the similarities and differences between them in terms of their meanings and uses, the two picture series that are specially designed to elicit expressions of spatial relations in Max Plank Institute were used. These are Topological Relations Picture Series (TRPS shortly) prepared by Bowerman and Pederson (1992) and Picture Series (PS), which has been designed by Felix et al. (1999). These two series of pictures have been since then commonly used in the fieldsites all over the world. These pictures are added to the end of the current study in the Appendices section together with the PL sentences describing the configurations depicted in the pictures. In Appendix A we provide the pictures of TRPS and PS pictures are given in Appendix B.

1.4 Outline of the thesis

Chapter 2 introduces the typological classification system developed in Talmy (2000a,b) for motion events and discusses the place of PL in this classification based on its relevant characteristics. It is specifically argued that PL appears to employ the Motion+Co-event and Satellite-framed strategies. This discussion is then followed by a crosslinguistic survey of the linguistic constructions expressing spatial relations

together with the linguistic analyses proposed to account for the relevant facts concerning these constructions, which have been simply referred to as Verb satellite constructions (VSCs for short).

Chapter 3 aims to provide a descriptive account of the spatial prefixes in PL. In this section, these markers are discussed and introduced in two major classes of prefixes, i.e. Simplex and Complex forms, following Öztürk and Pöchtrager (2011), from which we diverge slightly in terms of the list and classification of the prefixes. The meanings associated with each prefix are presented with illustrative examples and by reference to the pictures in TRPS and PS.

Chapter 4 investigates the interaction between the spatial prefixes with a particular class of verbs, namely motion verbs. For this purpose, the spatial prefixes are first divided into three basic groups based on their morpho-syntactic and semantic properties. The syntactic structures of each class are then provided following the finer-grained PP structure proposed by Svenonius (2006). As for the motion verbs in PL, they are also classified based on their morpho-syntactic properties especially in line with the motion verbs in Italian (Folli & Ramchand, 2005; Zubizarreta & Oh, 2007). Following primarily Son and Svenonius (2008), Fabregas (2007a) and Folli and Ramchand (2005), the lexical specifications of the motion verbs are analyzed. It is then argued that the restrictions on the co-occurrence of the spatial prefixes with certain motion verbs seem to follow from the lexical specification of the motion verbs. Based on this discussion, lastly, the status of PL as a satellite-framed language is further questioned.

Chapter 5 summarizes the discussion in the current thesis and concludes it together with suggestions for further studies.

CHAPTER 2

ISSUES IN SPATIAL RELATIONS ACROSS LANGUAGES: TYPOLOGY AND SURVEY

The aim of this chapter is two-fold: Our primary aim is to understand the typological stance of PL among other languages with respect to the mechanisms that are employed to express spatial relations. For this purpose, we primarily rely on the typology developed in Talmy (2000a,b) and the discussion in this chapter is basically organized according to this typology, which has been very influential in the literature. Our second goal is to provide a cross-linguistic survey of the linguistic means for expressing spatial phenomena that various languages exhibit. The motivation for the inclusion of this discussion is that although we aim to develop an in-depth analysis specifically for PL, it goes without saying that we need to take into consideration what types of mechanisms are used in other languages for expressing spatial relations, which we believe, provide us with insights as to how to approach this issue in PL.

The present chapter is organized as follows: Section 2.1 introduces the typological classification system proposed by Talmy (2000a,b) and situates PL in this classification based on its characteristics. In the following section, i.e. Section 2.2, we turn our attention to the languages that belong to a particular typological class according to the classification system presented in the previous section, i.e. Satellite-framed languages, which PL appears also to be a member of. In this section, the main focus is placed on two particular language families, namely Germanic and Slavic languages. The constructions that are composed of a verb and a satellite in these languages, VSCs for short, are first exemplified briefly, which is then followed

by a survey of the linguistic analyses that are concerned with these constructions. Lastly, in Section 2.2.3, we briefly touch upon the similar constructions in South Caucasian languages and we provide a comparison for PL and the Indo-European languages that are discussed in Sections 2.2.1 and 2.2.2, i.e. Germanic and Slavic. We conclude the discussion by highlighting the significance of the present thesis and its potential contributions to the linguistic theory in general.

2.1 Establishing the typology: Talmy (2000a,b)

By adopting a cognitive linguistic approach and relying also heavily on his previous works (1985, 1991), Talmy (2000a,b) offers a very influential classification system for languages with respect to their characteristics of expressing spatial relations. Although there have been since then many studies which question the adequacy of this classification and its applicability to various languages (Slobin, 2004; Beavers, Levin & Tham, 2010 among others), it still remains as one of the mostly cited typologies in the related literature.

Talmy (2000a,b) is primarily interested in how the semantic notion of ‘Motion’ is expressed in different languages. What needs to be noted here is that, in Talmy’s work, ‘motion’ does not only refer to an actual movement as suggested by the meaning of the word per se but it is also used to cover the situations whereby there is no indication of movement for an entity as in the case of a locational configuration. In order to prevent any confusion, Talmy makes use of a capital-small letter convention and suggests that ‘Motion’ (with a capital M) refers specifically to the occurrence or nonoccurrence of directed motion¹ and the uncanceled ‘motion’

¹ In Talmy’s original work, instead of directed motion, the term ‘translational motion’ is used and it has been defined as “motion in which the location of the Figure changes in the time period under consideration,” or a shift in “an object’s basic location ... from one point to another in space”. However, following Slobin (2004), Sachs (2004) uses the term ‘directed motion’ instead of

to any real movement. Therefore, Talmy's study takes into consideration not only the scenarios whereby there is a moving entity but also the locational configurations.

2.1.1 The Motion event

Before dealing with the Motion event in detail, Talmy (2000a,b) firstly draws a distinction between 'meaning' on the one hand and 'surface expression' on the other, which is reminiscent of the difference and the relationship between the form and meaning in the literature.² What is meant by 'surface expression' is basically the linguistic items/forms like 'verb', 'adposition' and the like. By putting the focus on the systematic relations in a language between the two aforementioned units, Talmy proceeds to "examine which semantic elements are expressed by which surface elements" (p. 66) and develops his typology primarily based on it. More specifically, the classification system that Talmy puts forward basically relies on which particular sub-element (or elements) of a Motion event is expressed in a language by the verb root or what he calls 'satellites', to which we will turn in detail later.

Talmy argues that the Motion event, which pertains to both motion and location, is comprised of four basic components. These are Figure, Ground, Path and Motion. Note that all of these semantic elements are written with capital letters, following the conventional system mentioned above, which we will also use throughout this study.

The first two elements of the Motion event are Figure and Ground which are objects occurring in relation to one another. More specifically, Figure is a moving or conceptually movable entity. Ground, on the other hand, is a reference entity with

translational motion. Since this term is more commonly used and known, we here prefer to choose this term over the other one for the benefit of the reader.

² The relationship between meaning and form does not have to be one-to-one at all cases, that is, one form could express more than one meaning and vice versa. The same relation also holds for the relationship between meaning and surface forms as explicitly stated in Talmy (2000a, p. 66)

respect to which the Figure moves or is located. These two components are exemplified in the sentence in (6) below:

(6) The cat was in the box.

In the particular example above, the cat is the Figure and the box is the Ground because the sentence depicts a locational configuration whereby the position of the cat is defined with respect to or by reference to another entity, i.e. the box. We could also use the same example to introduce the third component of the Motion event, namely Path, which describes the relation between the Figure and Ground. In the sentence above, Path is expressed through the preposition ‘in’ because it indicates the position of the cat (Figure) with respect to the box (Ground).

In addition to referring to the site occupied by the Figure with respect to the Ground as illustrated above for a locational configuration, Path (with a capital P) could also refer to the path (with a lowercase p) followed by the Figure in the case of scenario where the Figure is set in motion. This is exemplified in (7) below:

(7) The cat went into the house.
Figure Path Ground

As for the ‘Motion’ component of the Motion event-recall that Motion (with a capital M) refers to the existence (per se) of either motion or locatedness in the event-Talmy uses two different forms to represent motion and location. These are ‘MOVE’ and ‘BE_{LOC}’, i.e. ‘be located’, respectively. Returning to the two aforementioned examples, it could be said that these two forms of the ‘Motion’ are expressed within the verb root as represented in (8) and (9) below:

(8) The cat was in the box.
(Figure) Motion (BE_{LOC}) (Path) (Ground)

(9) The cat went into the house.
(Figure) Motion (MOVE) (Path) (Ground)

An important thing to note at this point is that Talmy refers to the four components that have just been described above as the internal components of the Motion event and he further suggests that there is another (external) component, which the Motion event could be associated with. This latter type of component is referred to as *Co-event* and it is defined as an event that “performs functions of support in relation to the Motion event... It can be seen to fill in, elaborate, add to, or motivate the event” (Talmy, 2000b, p. 220). Among different types of Co-events that Talmy discusses such as Precursion and Enablement and so on, two of them seem to be more prominent and common, hence more significant. These are Manner and Cause. The examples in (10) illustrate these two types of Co-events:

- | | | |
|------|--|--------------------------------|
| (10) | Manner: | Cause: |
| | motion: The pencil rolled off the table. | The pencil blew off the table |
| | location: The pencil lay on the table. | The pencil stuck on the table. |
| | | (after I glued it) |
| | | (Talmy, 2000a, p. 71) |

In all of the examples above, the pencil functions as the Figure and the table as the Ground. The Path is expressed through the prepositions/particles. All of the verb roots express the Motion component. Besides the difference in the nature of the Motion sub-component, i.e. directional versus locational, the sentences differ with respect to the type of Co-event involved in the verb roots, namely depending on whether there is a Manner Co-event or a Cause one.

Talmy defines Manner as follows: “Manner refers to a subsidiary action or state that a Patient manifests concurrently with its main action or state.” (Talmy 2000b, p. 152). This definition seems to suggest that the main action or state is the Motion sub-component of the event and Manner only contributes further information

as to the way in which the event takes place, hence it is subsidiary and external to the event. To give an example, we could take a look at the so-called Manner of motion verbs such as *run*, *walk*, *swim* and so on. All of these verbs express some sort of motion or movement but they differ from one another in terms of how the action is carried out or takes place. As in the case of *run* and *walk*, for instance, the movement is brought about as a result of putting forward one foot after the other along/on a specific surface, which could be considered as the subsidiary action in Talmy's terms. Very simply, these two verbs seem to differ from each other with respect to the speed of action, which could also be considered something related to the Manner component. Therefore, it seems that further specification of some components is necessary.

The second kind of the Co-event, namely Cause, has been defined as "the qualitatively different kinds of causing events such as can be expressed by an English subordinate *from*- or *by*-clause" (Talmy, 2000b, p. 152). Following from this definition, it seems to be the case that in addition to the Figure (and the Ground as well), there has to be a (possibly external) source such as an Initiator or Instrument that puts the Figure in motion or in a location/state. It also seems to be the case that the Causer could be either implicit or explicitly stated in a sentence. For the former, we could consider the two examples given above, namely the examples under Cause in (10). The verb root *blow* implies that the Causer is the wind whereas *stick* implies the existence of an Agentive initiator in this particular example. As an example whereby the Causer is explicitly stated in the sentence we could give the following sentence in (11):

(11) The boy kicked the ball into the house.

Lastly, Talmy also makes a further regard about the difference between the abovementioned two types of Co-event. He argues that the two could be distinguished from one another depending on what the verb root basically makes reference to. To put more explicitly, if the basic reference is to what the Agent or Instrument does, then the Cause component seems to be at issue. As in the case of the example given above, namely in the example (10), the verb root *blow* makes reference to the wind, which is the Causer of the event and it does not specify, for example, in what fashion the napkin moves after the blowing event acted upon it. As opposed to the case for Cause, if the verb's reference is to what the Figure does, rather than the Agent or the Initiator, Manner seems to be at play.

Having introduced the basic components of the Motion event, we can now proceed to see how Talmy uses them in order to develop his typology. In doing so, he is primarily interested in how the aforementioned components manifest themselves in a given language. Put very simply, what is significant in classifying languages is which components are characteristically expressed by which surface forms in a given language.³ Considering the variety of the semantic components and the surface forms across languages, on the other hand, it seems rather difficult to offer a classification. For that reason, Talmy chooses to put the focus on two particular units, one semantic and one surface form, and develops his classification accordingly. The surface form that he picks out is the verb root and Path is the semantic component that is highlighted among others. These two particular units, in turn, lead to two different classifications.

³ Talmy also acknowledges the fact that a single language might exhibit properties of more than one typological pattern. In such cases, the language could be classified depending on the most basic and common pattern it exhibits. It might, however, be difficult to determine what could qualify as 'the *most basic* (pattern)' in some cases, because of which Talmy's classification has been criticized. Other scholars working on this issue try to improve Talmy's typology in a way that it could accommodate languages that show properties of more than one typological pattern. For such a discussion, please see Beavers et al. (2010) and the references therein.

2.1.2 Verb (Motion)-based typology

This particular typology primarily relies on what types of semantic components are expressed via the verb root in a language. At this point, it is important to note that Talmy makes the assumption that the component of Motion is always lexicalized in the main verb of a motion event. Based on this assumption, Talmy proceeds to classify languages depending on what other semantic components are additionally present in the verb root. He refers to this phenomenon of the expression of more than one semantic component within a specific surface expression as *conflation*. Thus, his first typology relies on what other semantic components are conflated into the verb root in addition to Motion.

Considering the number of the semantic components introduced above, i.e. Path, Figure, Ground and Co-event (Cause or Manner), the number of possible patterns is expected to be four, assuming that each component is conflated into verb on an individual basis.⁴ Among all these possible patterns, Talmy suggests that only the *Motion+Ground* conflation pattern turns out to be a non-occurring combination due to the fact that Ground by itself conflating with the Motion verb does not seem to form any language's core system for expressing Motion (Talmy, 2000a, p. 99), hence this pattern is not attested among languages of the world. Therefore, Talmy's verb-based classification includes three typological classes, which are brought about as a result of the combination of the remaining semantic components, except for Ground, with the verb root. These patterns will be briefly explained below. Examples of languages falling into the relevant classes will also be respectively provided.

⁴ Talmy also discusses cases whereby two semantic components could in theory and practice conflate at the same time into a verb root. As an example for such cases, he provides the English verbs like *box* (MOVE into a box) or *shelve* (MOVE onto a shelf), which are assumed to express Ground and Path in addition to Motion.

2.1.2.1 Motion + Figure

Languages exhibiting this type of pattern have a series of verbs that express specific information regarding the nature of the Figure. That is, the verbs “express various kinds of objects or materials as moving or located” (Talmy, 2000b, p. 57). As an example of this conflation type, Talmy discusses the English verbs *rain* and *spit*. The non-agentive verb *rain* refers to the movement of rain (in its nominal sense), which is the Figure in this particular case. Likewise, *spit* also specifies the Figure, i.e. the spit, which is set in motion. It differs, however, from *rain* in terms of agentivity.

The number of languages falling into this group is quite few; hence it is the least common type. Besides Navajo (a Southwestern American language), Talmy includes Atsugewi in this group, a Hokan language of northern California, which he worked on for his dissertation (1972). He considers that this conflation pattern is characteristic for this language because there are numerous motion verbs showing sensitivity to the nature of the Figure. To give an example, *-lup-* means ‘for a small shiny spherical object (e.g. a round candy, an eyeball) to move/be located’.

2.1.2.2 Motion + Co-event

Languages where the Co-event, namely Manner or Cause (or one of the other Co-events that Talmy discusses but is not included in this study due to space and relevance considerations), conflates into the verb root, have a series of verbs expressing motion occurring with various manners or causes. In Section 2.1.1, we saw examples of both types of Co-events incorporated into the verb root in the example (10). Further examples of this kind of conflation are provided in (12) below:

- (12) a. The ball *rolled* down the stairs. (Motion+Manner)
 b. I *kicked* the ball into the room. (Motion+Cause)

Talmy suggests that different types of Co-events conflated in the verb can be best represented when the sentences involving them are unpacked in a way that the Co-events are expressed by separate subordinate clauses (Talmy, 2000b, p. 29). The sentences given above in (12) can then be respectively paraphrased as illustrated in (13) below:

(13) a. The ball moved down the stairs by rolling.

b. I moved the ball into the room by kicking it.

As for the languages where the Co-event manifests itself within the verb root, Talmy includes Chinese, Finno-Ugric, Ojibwa, Warlpiri in addition to English, which is the most-cited example of this type. Along with English, the majority of Indo-European languages also fall into this group. Within the Indo-European family, only the Romance languages seem to behave differently because they are argued to belong to the next category, to which we will turn below.

2.1.2.3 Motion + Path

In this pattern, the verb root expresses the fact of Motion along with Path. Thus, languages of this type have a systematic class of motion verbs expressing a wide range of different paths. Spanish verbs of motion are the mostly cited examples of this particular type of pattern, which is illustrated in (14):

(14) La botella	salio	de	la	cueva (flotando). ⁵
the bottle	MOVED-out	from	the	cave floating
'The bottle floated out of the cave.'				(Talmy, 2000a, p. 89)

In addition to Romance language family, languages like Japanese, Korean, Polynesian and many others also exhibit a similar pattern. Turkish, the language to which PL is in the closest relation, is also argued to pattern with the beforementioned

⁵ Talmy also makes the observation that in languages of this particular type, since the Co-event is not conflated into the verb, it must be expressed via another (adverbial or gerundive) constituent.

languages due to the existence of a systematic class of motion verbs incorporating Path such as *çık-* ‘exit’, *gir-* ‘enter’, *yüksel-* ‘ascend’, *dön-* ‘return’ and so on.

It should be noted that although English also has a number of verbs that genuinely incorporate Path such as the English translations of the Turkish examples above, it is classified under the Motion + Co-event type. This follows from the fact that these verbs are not the most characteristic type in English and most of these verbs have Latin or Romance origin (Talmy, 2000a, p. 92). Therefore, Path is expressed via other surface forms but not in the verb root. Specifically, Path manifests itself in English through prepositions and particles, or what Talmy terms as *satellites*. We will turn to this issue in a detailed fashion in the following subsection where we will also discuss which types of categories count as satellites according to Talmy’s analysis.

2.1.3 Path-based typology

The second type of classification presented in Talmy (2000a,b) has been developed primarily based on the lexical component (or surface form) in which one of the semantic components, namely Path (or Path plus Ground), is typically expressed in a given language. The reason why the typology is shaped according to this particular semantic component, but not the others, stems from Talmy’s hypothesis that the most defining part of the motion event is the Path component, or the ‘association function’ in his own terms (Talmy, 2000b, p.218).

Languages are classified based on whether they lexicalize the Path component characteristically in the verb root or in another surface form, which Talmy calls as ‘satellite’. Following from this, two language types are proposed. These are *verb-framed* and *satellite-framed* languages.

2.1.3.1 Defining the term *satellite*

Talmy introduces the term ‘satellite’ in order to refer to the grammatical category of “any constituent other than a nominal complement that is in sister relation to the verb root” (Talmy, 2000a, p. 139). He further suggests that for a constituent to be considered as a satellite (or *Sat* in short), it should relate to the verb head as “a dependent to a head”, which excludes the noun or prepositional phrase complements as satellites. Although Talmy acknowledges the fact that there is some indeterminacy as to exactly which surface forms should be considered as a satellite, he does include the following constituents as member of this category: “English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, Chinese verb complements” (2000a, p. 139). Some examples of these satellites are provided in (15) below:

- (15) a. over: The record started over. (particle, English)
- b. entzwei : Der Tisch brach entzwei. (separable prefix, German)
- ‘The table broke in two’
- zer-: Der Tisch zerbrach. (inseparable prefix, German)
- ‘The table broke to pieces.’
- c. v-: Ptica vletela. (inseparable prefix, Russian)
- ‘The bird flew in.’ (Talmy, 2000a, p. 140)

As can be seen in the examples above, the satellite could be an affix (that is, a bound form), as in the case of German and Russian, or a free form like a particle as in English. Following partly from this, i.e. the free forms counting as satellites, it might be difficult in some cases to determine whether a constituent should be considered a satellite or not because the set of forms that can function as satellites in a language could overlap with another category such as prepositions, which are also

free forms. In other words, the status of the bound constituents as a satellite in Talmy's analysis seems to be more robust but when it comes to the case of free forms one would rather be more careful in deciding what functions as a satellite.

Considering this, Talmy provides a discussion of the ways to differentiate between a preposition and satellites (or particles) in English. Besides other dissimilarities such as different stress patterns and positional properties, a satellite differs from a preposition with regard to phrase structure and co-occurrence. To put more specifically, a satellite is in construction with the verb whereas a preposition holds a similar relation with a noun. Based on this, it could be inferred that for a surface form to be taken to be a satellite, that constituent should hold a close relation with the verb root in a language. Talmy, as well, suggests this by saying that "a verb root together with its satellites forms a constituent on its own right, the 'verb complex'" (2000a, p. 139). Therefore, it appears to be the case that why bound forms, like prefixes in Indo-European languages, are safely considered as being members of the satellite category follows from their apparently close interaction with the verb root in virtue of being prefixally bound to it.

2.1.3.2 The two language types in the typology: verb-framed and satellite-framed
Languages are assumed to fall into two different classes in Talmy's Path-based typology depending basically on which lexical component regularly expresses Path. If Path is manifested in the verb root in a given language, it is argued to belong to the verb-framed type. In satellite-framed languages, on the other hand, as the name suggests, Path is expressed through satellites.

As members of the former type, Talmy mentions Semitic and Romance languages in addition to languages like Polynesian, Naz-Perce and Caddo. Note that

the majority of these languages are also classified as Motion + Path with regard to the verb-based typology as mentioned above in Section 2.1.2.3 based on the fact that they have a systematic class of motion verbs conflating Path. Since Path is already expressed within the verb roots in these languages, it does not seem to be manifested in the satellites at the same time.

As for the second type, i.e. satellite-framed languages (shortly SF), in addition to Motion + Figure type languages like Atsugewi⁶, Talmy includes Indo-European languages (except for Romance) and Chinese, both of which belong to the Motion + Co-event type in the previous type of the typology.

Having presented the basics of the motion event typology proposed in Talmy's study, in the next section we will turn to PL and attempt to understand its position in this typological system. Before going into the details concerning PL, below in Table 3 we provide a summary the discussion thus far and illustrate how languages are classified in Talmy's work:

Table 3. Typology of Motion Verbs and their Satellites (Talmy, 2000b, p.154)

Language/language family	The particular components of a Motion event characteristically represented in the:	
	Verb-root	Satellite
Romance Semitic Polynesian ----- Naz Perce ----- Caddo	Motion+Path	Ø
		Manner ----- (Figure/)Ground
Indo-European (not Romance)	Motion + {Cause/Manner}	Path
Chinese	Motion + {Cause/Manner}	
Atsugewi (most Northern Hoka)	Motion+Figure	a.Path+Ground b.Cause

⁶ Talmy argues that satellites in this language express the fact of Path together with Ground.

2.1.4 PL in Talmy's typology

In this section, our aim is to discuss the position of PL within Talmy's typology of motion event. In light of the discussion above, we will attempt to situate PL in the two main types of typology presented above, i.e. Verb-based and Path-based. This section is organized and divided into two subsections accordingly. Let us now move on to the discussion regarding this issue.

2.1.4.1 PL in verb-based typology

As far as the verb roots in PL are considered, it seems that it is the Manner component, rather than the Figure or Path that is conflated along with the Motion component as also suggested by Kutscher (2007) for the Ardeshen dialect of Laz. This primarily follows from the existence of a number of Manner-incorporating motion verbs in the language such as *-qaph-* 'run', *-gzal-* 'walk', *-dg-* 'stand', *-dz-* 'lie', *-b-* 'hang' and many others.

Another argument supporting this claim comes from the fact that the language appears to have a limited number of verbs, which could be argued to conflate Figure because they show sensitivity to the semantic properties of the Figure. Among these, one could count *-yon-* 'take someone/something animate', *-ğ-* 'bring something inanimate', *-sqval-* 'send someone/something animate', *-ncğon-* 'send something inanimate'. The number of such verbs is, however, quite low. For that reason, it does also not seem to be the case that these verbs would be considered as the characteristic motion verbs of PL. Moreover, the status of the aforementioned verbs as Figure-conflating verbs is also questionable due to the fact that they only imply some semantic properties of the Figure, but do not specify "various kinds of objects or materials as moving or located" as suggested by Talmy (2000b, p. 57).

Based on this, it can be concluded that PL does not belong to the Motion + Figure type as in the case of Atsugewi as suggested by Talmy (2000a).

One last piece of evidence in favor of the claim that PL belongs to the Motion + Co-event type is that this language does not appear to exhibit the properties of the last remaining type, namely the Motion + Path. This follows from the fact that PL does not have the direct equivalents of the aforementioned Spanish or Turkish verbs conflating Path, but such forms are formulated by the systematic combination of a verbal prefix and a motion denoting verb root as exemplified below in (16):

(16) –l- ‘go’; e+l- ‘go up’, ce+l- ‘go down’, go+l- ‘go around’

Based on the examples above, it could be concluded that Path is not characteristically manifested within the verb root, hence it cannot be classified as a Motion + Path type language. It seems rather to pattern with English in terms of the means for expressing the Path component because it is manifested in other surface forms such as particles and prepositions in English, as well. Instead, the Manner component conflates into the verb root along with the Motion as also suggested above.

To put in a nutshell, with respect to the first type of typology proposed by Talmy (2000a,b), which we have referred to as verb-based, PL verbs seem rather to exhibit the properties of the Motion + Co-event (Manner) type, patterning with languages like Indo-European (except for Romance), Finno-Ugric and so on.

Having situated PL into the first classification system with respect to the properties of its motion verbs, we can now proceed to discuss its position within the second typology developed in Talmy’s analysis, i.e. Path-based typology. This discussion will be significant for the purposes of the present thesis whose main concern is the spatial prefixal system of PL. Specifically; we will show that these

prefixes seem to express information regarding the Path component. We will later discuss the position of PL in this classification as well and then proceed to make a comparison between the languages belonging to this class with respect to the properties of their linguistic spatial system in Section 2.2.

2.1.4.2 PL in path-based typology

As far as PL is considered with respect to Talmy's path-based typology, it seems to qualify as an example of the satellite-framed language type, which is also suggested by Kutscher (2011) for Laz. This mainly follows from its intricate prefixal system consisting of 27 verbal prefixes encoding information regarding spatial relations. We will now present the pieces of evidence indicating that these prefixes merit satellite designation, based on which one can come to the conclusion that PL uses the satellite-framed strategy.

The first piece of evidence in favor of the satellite status of PL verbal prefixes comes from the fact that these prefixes are realized as part of the verbal complex. This seems to suggest that they relate to the verb root as "dependent to a head" as suggested by Talmy (2000a, p. 139), hence they seem to qualify as satellites. Recall that Talmy treats bound forms as satellites more safely as opposed to free forms, whose status is more open to discussion.

Secondly, the spatial information is basically coded in the verbal complex in PL, whereby the coding is divided between two specific parts of the verbal complex. For expressions of motion, while the verb root codes the fact of Motion + Manner, Path seems to be expressed through the verbal prefixes that may also denote information regarding the physical properties of the ground referent. (17) is an example illustrating this:

(17) Kat'u-k masa-s e-yo-qaph-u.
 cat.ERG table.LOC UP-ON-jump-PST.3SG
 'The cat jumped onto the table.'

As can be seen in the example above, whereby we have a complex prefix, the first component of the prefix expresses the axial orientation of the movement while the second part, i.e. *yo*, tells us about which particular side of the ground referent the Figure is in relation to.

Based on the representative example, we provide in (18) the schematic representation of how spatial relations are expressed in PL:

(18) NP	NP+ case	[Prefix+Verb Root] ⁷ Verbal Complex
Figure	Ground	Path(+Ground)-Motion+Manner

The fact that the spatial prefixes in PL express information related to Path (plus Ground) and are dependent to the verb head suggests that they qualify as satellites according to Talmy's criteria. Based on this, one can conclude that PL belongs to the class of SF languages and expect to pattern with Indo-European languages (except for Romance) along with others as can be seen in Table 3.

We will, however, argue in this thesis that despite the facts presented above, PL might not fall into the SF language class in Talmy's classification contra Kutscher (2011). This primarily follows from the nature of the interaction of the so-called satellites in PL with different types of motion verbs, which will be discussed thoroughly in Chapter 4. Specifically, it will be argued that since the prefixes in PL exhibit selectivity with respect to the kind of motion verbs they co-occur with, one could question their status as satellites. Leaving the details to the relevant chapter, we will now turn our attention to the languages that Talmy discusses under the SF

⁷ In addition to the spatial prefixes and the verb roots, agreement and TAM markers are also a part of the verbal complex in PL. For the sake of clarity, we did not represent them here. They will be mentioned in Section 4.1 whereby we discuss the general properties of the verbal complex in PL.

group, i.e. Germanic and Slavic, with the purpose of understanding how satellites have been analyzed in the linguistic literature so far.

2.2 Issues regarding satellites in SF languages

The aim of this section is to provide a brief overview of the linguistic phenomena associated with satellites in SF languages. We will specifically be interested in constructions consisting of a verb plus a satellite in these languages, which we will simply refer to as verb-satellite constructions (VSC for short). It will be shown that VSCs have been approached from various aspects in different SF languages.

Among SF languages, we will specifically focus on two particular language groups belonging to the Indo-European family, i.e. Germanic and Slavic. We will first provide illustrative examples of VSCs in these languages and then survey the previous accounts concerned with these constructions, which we believe will give us an understanding of how to deal with the same constructions in PL.

2.2.1 Survey of related literature on Germanic VSCs (English, German, Dutch)

One of the distinguishing properties shared by the Germanic languages is that they have constructions consisting of a preposition-like element and a verb. Such constructions have been referred to in various names such as particle verbs, (in)separable complex predicates, prefix verbs, phrasal verbs and so on. In the literature there are many studies which are concerned with the lexical or phrasal status and structure of these constructions. Given the vast literature on this issue, we will not be able to provide an exhaustive survey of previous accounts for all members of the Germanic class but rather focus mainly on English, German and Dutch.

It is possible to discuss the VSCs in Germanic languages by dividing them into two main classes depending on the nature of their satellites. The first type of such constructions involves a bound morpheme plus a verb whereas, in the other, the verb occurs in combination with a particle.⁸ The main difference between these two elements seems to lie primarily in the degree of their dependency to the verb root. To put more explicitly, while the prefixes are totally dependent on their verbal host, the particles exhibit syntactic freedom to some extent, hence could be separated from the verb root in various ways, as opposed to the affixal elements.

As for the first type of VSCs, namely affix+verb combinations, one could give the German and Dutch examples below in (19) and (20):

(19) a. weil Peter den Brief *unter*-schreibt

because Peter the letter prefix-writes

‘because Peter signs the letter’

b. Peter *unter*-schreibt_i den Brief t_i

Peter prefix-writes the letter

‘Peter signs the letter’ (German, prefix; Zeller, 2001, p. 57)

(20) a. dat Jan het huis *doorzoekt* op wapens

that John the house through-search on weapons

‘that John searches the house for weapons’

b. Jan *doorzoekt* het huis op wapens

John through-search the house on weapons

‘John searches the house for weapons’ (Dutch, prefix; Blom, 2005, p. 6)

⁸ Particles are defined as intransitive prepositions in Emonds (1972). In other accounts they have also been referred to as complementless prepositions (McIntyre, 2007 and the references therein). Following from this definition, particles could be defined as preposition-like elements, which form a close union with the verb rather than with a nominal as in the case of prepositions. For a detailed discussion regarding the properties of particles that distinguish them from prepositions please see Talmy (2000a,b) and Cappelle (2005).

As illustrated in the examples above, in both of these languages, which exhibit V2⁹ phenomenon, the prefix must move together with the verb, hence the term ‘inseparable prefixes’. The inseparability of the prefix in Dutch is also evidenced by the fact that other morphemes, such as an auxiliary or an infinitival marker, cannot intervene the prefix and the verb as shown below in (21):

- (21) a. ... doorzocht heekt/heekt doorzocht/*door heekt zocht
 b. ... *door te zoeken / te doorzoeken... (Blom, 2005, p. 7)

As opposed to the prefixes, the particle+verb combination¹⁰ in these languages exhibit syntactic freedom because they can either be stranded in V2 constructions or could be separated by other morphemes¹¹ as illustrated in (22)-(24):

- (22) a. weil er ihm seine Verfehlungen *vor*wirft
 because he him his lapses particle-throws
 ‘because he reproaches him with his lapses’
 b. Er wirft_i ihm seine Verfehlungen *vor* t_i.
 ‘He reproaches him with his lapses’ (German, particle; Zeller, 2001)

- (23)a. dat Jan de informative *op*zoekt
 that John the information up-searches
 ‘that John looks up the information’
 b. Jan zoekt_i de informative *op* t_i
 John searches the information up
 ‘John looks up the information’ (Dutch, particle; Blom, 2005)

⁹ In the majority of Germanic languages, the finite verb needs to appear in the second position of a declarative main clause, the first position being occupied by a single constituent functioning as the topic. In embedded clauses, on the other hand, the verb occurs in (phrase/clause) final position.

¹⁰ In literature, particles in German have also been referred to as ‘separable prefixes’ (Dehe, 2015 and the references there)

¹¹ In German, it has also been noted that different types of derivational or inflectional morphemes could occur in between a particle and the verb as in the example below whereby the first part of the nominalizing circumfix intervenes between the particle and the verb: RUMgelabere ‘incessant chatter’. For more of this discussion, please see McIntyre (2015) and the references therein.

(24) a. ... opgezocht heft / op heeft gezocht / heeft opgezocht...

b. ... op te zoeken / *te opzoeken... (Dutch; Blom, 2005, p. 7)

The second type of the VSCs, i.e. particle-verb combinations, is more prevalent in Germanic languages in which the particles are associated with different positional properties. In Swedish, for instance, the particles necessarily precede the object and follow the verb as in (25) whereas in Danish, we find the opposite of the Swedish case, i.e. the particles should follow the object as illustrated in (26). In languages like English (also Norwegian and Icelandic as stated in Toivonen, 2001), on the other hand, the particles show optionality in terms of their position relative to the object. In other words, they can either precede or follow the object as illustrated in (27).

(25) a. Vi slappte ut hunden.

we let out dog.the

‘We let out the dog’

b. *Vi slappte hunden ut. (Swedish; Toivonen, 2001, p. 160)

(26) a. Vi slap hunden ud .

we let dog.the out

‘We let the dog out.’

b. *Vi slap ud hunden (Danish; Svenonius, 1994)

(27) We threw the garbage out. / We threw out the garbage. (English)

The majority of the studies concerned with VSCs in Germanic languages is devoted to the second type of these constructions, namely particle-verb combinations. This stems from the fact that such constructions show both word-like as well as phrasal characteristics as opposed to the prefix-verb combinations, whose

status seems more clear-cut on the basis of the fact that the prefix and the verb appear to form one (lexical) unit, hence behave more like a word.

The peculiar nature of the particles has raised the questions along the following lines: 1) Is it the case that the verb and the particle form a lexical item? , 2) Which constituent in the particle-verb construction, i.e. the verb or the object, does the particle hold a closer relation with? Another question that has been addressed in many studies is concerned with the phrase-structure of the particles: Do the particles project their own maximal projections or not?

There are both morphological and syntactic analyses addressing the issues raised above. The morphological analyses attempt to account for the word-like behaviors of VSCs based on the argument that the verb and the particle form a morphological word together. This argument primarily relies on the fact that some VSCs have idiosyncratic or idiomatic meanings, i.e. their meaning is not derived from the meanings of their parts. As an example for such constructions, one could name the German *auf+hören* ‘stop, give up’ or many other English phrasal verbs such as *throw up* ‘vomit’, *bring NP (e.g. a child) up* ‘to raise NP’ and so on. In addition to the semantic idiosyncrasy, some VSCs might exhibit different argument structural properties from that of the verb functioning as the base for the construction. Elenbaas (2007) provides the following pairs of examples in (28) to illustrate the fact that the subcategorizational properties of the VSCs might be different from those of their verbal components:

(28) a. The manager laughed *(off) the speculations.

b. The imperturbable novelist was typing *(the novel) away *(the novel)

Another argument put forward as an evidence for the claim that VSCs show lexical (word-like) behaviors is that they could be used as input to the morphological

processes like derivational morphology and compounding as can be seen in the examples like ‘pick-up-able’, ‘walk-outer’ and ‘make-up remover’.¹²

The syntactic autonomy of the particles as discussed above has, on the other hand, led to the development of many syntactic analyses for VSCs in the literature. These syntactic studies are mainly concerned with the phrase-structural and word order-related properties of the VSCs. Focusing primarily on the fact that the particles are separable from the verb, these accounts attempt to account for the positional variability of the particles via a range of different mechanisms such as particle shift, object shift or particle incorporation.

Despite the vast variety of the syntactic studies concerned with the VSCs in English, these structural analyses could be argued to be of two main types. The distinction between the two types is basically drawn depending on which constituent in the verb phrase the particle is assumed to hold a closer relation with, i.e. the verb or the direct object. The analyses that argue for the former type have been referred to as Complex Predicate analyses and the latter as Small Clause analyses.

Neeleman (1994) analyses the English VSCs as complex verbs. The structure proposed for VSCs in Neeleman (1994) is as in (29):

(29) $_{VP}[V[V \text{ Pred}] NP(\text{object})]$

Particles in the structure above are claimed to be the spell out of the Predicate head, indicating that Neeleman treats them as non-verbal predicates. The structure in (29) gives us the Verb-Part-Object word order. Recall, however, that in English the particles show positional variability in the sense that they could optionally occur on either side of the object. Neeleman, therefore, argues that the alternative order, i.e. Verb-Object-Part, is the result of particle extraction from the complex verb. This

¹² For more examples of German and English VSCs functioning as input for derivation and compounding, please see McIntyre (2015) and the references there.

extraction operation, however, needs to be optional due to the optionality of the two VSC word orders. Neeleman relates this optionality to the structure of English particles, which he argues to optionally project a phrase. His assumption is that the particle extraction takes place if the particle projects a phrase, for which the main motivation is case-related.

The Small Clause treatments of VSCs (Kayne, 1985; den Dikken, 1995; Svenonius, 1996 among others), on the other hand, rely on the idea that the object and the particle hold a closer relation with one another, excluding the verb. What is suggested in these accounts is that this relation is clausal in nature. The evidence for this claim comes from the similarities between the VSCs and adjectival/resultative constructions as illustrated in (30):

- (30) a. Jane hammered the metal flat.
- b. Jane turned the lights off.

In (30a) above, there is a small clause consisting of an adjectival predicate, i.e. *flat*, and a subject, which is interpreted as the holder of the property denoted by the adjective, namely the metal. In (30b), we seem to have a very similar construction with the only difference being the particle functioning as the predicate of the small clause instead of an adjective. In both sentences, the predicative nature of the adjective and the particle respectively seems to be reinforced by the fact that they both express a result holding of the direct object of the sentence and being brought about by the event denoted in the verb.

Being among the first one of such analyses, Kayne (1985) assumes the Verb-Object-Prt to be the underlying order and the other word order is derived as a result of object extra position, that is, rightward movement motivated for reasons of case-assignment. Likewise, Den Dikken (1995) also treats the Verb-Object-Prt as the

underlying order but argues that the alternative word order comes into being after a process called *reanalysis* takes place, again due to case-related reasons. As opposed to these two analyses, Svenonius (1996), who also considers the same word order as the underlying one, relates the derivation of the second order to the EPP requirement of the Pred(icate)P, which he assumes to be on top of the PartP.

The discussion in this section has indicated that the accounts dealing with the VSCs in Germanic languages are basically concerned with the syntactic structure of these constructions and the syntactic operations they are claimed to undergo. In the next section, we will now turn our attention to another subgroup of the Indo-European languages, namely Slavic languages.

2.2.2 Survey of related literature on Slavic VSCs (Russian, Czech, Polish, Serbian)

One of the distinguishing properties of the Slavic languages is that they have a series of verbal prefixes that might be associated with a range of different meanings. Also as in the case of German and Dutch prefixes mentioned before, which are referred to as ‘inseparable particles’, the Slavic satellites have been taken to be affixes due to their dependency on and inseparability from the verb root. Most of these Slavic prefixes, though not all of them, also have a prepositional counterpart. Notice also that many of the particles in Germanic languages are also drawn from the prepositional inventory. Below there are two respective examples in (31) from Russian with or without a homophonous prepositional counterpart (both are taken from Romanova, 2006):

- (31) a. Xozjain sobaki pod-lez pod komod i
owner dog.GEN under-climbed.sg.ms under closet.ACC
‘The owner of the dog crawled under the closet and ...’ (p. 77)

b. Vasja vy-pisal predlozenije iz/(vy) rasskaza.

Vasja out-wrote.sg.ms sentence.ACC out of-short story.GEN.

‘Vasja wrote a sentence out of a short story.’ (p. 73)

For those prefixes that are homophonous with a preposition, the two generally express the same meaning as illustrated in (31) or they might be associated with a different meaning though they have the same phonological shape, which is exemplified in (32) and (33) and also discussed by Svenonius (2004).¹³

(32) pri-pravitj pri lodke

by-drive by boat

‘spice’ ‘by the river’ (Svenonius, 2004, p. 214)

(33) a. za-mazatj stenu kraskoj

on-smear.inf wall.ACC paint.INSTR

‘bedaub the wall with paint’ (Romanova, 2006, p. 90)

b. On sidel za stolom ...

he sat behind table.INSTR

‘He was sitting at the table.’ (Romanova, 2006, p. 35)

As for the meaning of the VSCs in Slavic languages in general, it could be said that their meaning could be transparent in the sense that it could be compositionally derived from the meanings of its parts, i.e. the verb root and the satellite. In such cases, prefixes generally bear a spatial meaning as their prepositional counterparts and the VSCs in which they occur are associated with a resultative meaning as shown in the examples in (34) taken from Svenonius (2004):¹⁴

¹³ Svenonius (2004) acknowledges the fact that ‘za-’ in Russian *often* means ‘behind’ as a preposition and ‘onto’ as a prefix. For that reason, in some studies, ‘za-’ has been translated as ‘behind’.

¹⁴ The examples in (34) are taken from the following sources: Russian (Spencer and Zaretskaya 1998, p.17), Serbian (his own example), Bulgarian (Dimitrova-Vulchanova 1999, p. 86) and Czech (Filip 1997), Serbo-Croatian (Brala 2000). Please see Svenonius (2004) for the relevant references.

(34) a. Helder za-brosil mjac v vorota anglican.

Helder into-threw ball in goal English

‘Helder kicked the ball into the English goal.’ (Russian)

b. U-bacio sam novcic.

in-thrown am coin

‘I threw a coin in.’ (Serbian)

c. Za-strojavam plaza s kusti.

for-build beach with houses

‘I am building up the beach with houses.’ (Bulgarian)

d. Pri-nesl ze sklepa uhli.

to-carried from basement coal

‘He bought some coal from the basement.’ (Czech)

e. Pre-skocio je ogradu.

over-jumped is the fence.GEN

‘He jumped over the fence.’ (Serbo-Croatian)

The VSCs might also bear an idiosyncratic or idiomatic meaning whereby the meaning of the whole construction is not dependent on the meaning of its parts. This is illustrated in the Russian examples in (35) and (36) taken from again Svenonius (2004) below:

(35) David sovsem za-brosil futbol.

David completely into-threw soccer

‘David completely gave up soccer.’

(36) a. raz-jestj

around-eat

‘corrode’; cf. English *eat away*

b. vy-dumatj

out-think

‘invent’; cf. *think up*

One last point that needs to be mentioned is the issue of prefix stacking in Slavic languages. As can be seen in the examples provided below, more than one verbal prefix could be used one after another. The extent to which prefixes could stack on top of each other, however, differs from one language to another. While Bulgarian (and Serbian) exhibits multiple prefixation to a great extent, i.e. the prefixes could co-occur relatively freely, Russian seems not to favor the stacking of more than two prefixes (Romanova, 2006; Svenonius, 2004) as shown in (37):

(37) a. iz-po-na-ra-pre-razkaza

CPML-DSTR-CMLT-RPET-narrate

‘sell completely many things in excess one by one’

(Bulgarian; Istratkova, 2004)

b. po-v-stav-a-tj

DSTR-in-stand-IMPR-INF

‘stand up one by one’

(Serbian; Svenonius, 2004)

c. po-ot-kry-va-tj

DSTR-away-open-IMPF-INF

‘open one after another’

(Russian; Romanova, 2006)

The questions that the Slavic satellites have raised are basically related to the issue of prefix stacking, i.e. the co-occurrence of more than one prefix with a verbal root as illustrated above in (37). The possibility of multiple prefixation in Slavic languages has led to the development of many studies aiming to find answers to the questions along the following lines: 1) Are there any restrictions on the type and order of the prefixes that can stack on top of each other?, 2) Is it the case that the prefixes that are in a sequence are similar to one another with respect to their morpho-syntactic and semantic properties or are there differences between them?

The accounts that are concerned with the questions listed above seem to converge on the idea that the Slavic prefixes could be divided into at least two groups when their morpho-syntactic and semantic properties are taken into consideration. Based on the systematic differences that the two prefix groups exhibit, Svenonius (2004) and Romanova (2004) claim that the Slavic prefixes could be assigned into one of the following two groups; either lexical or super-lexical.

Lexical and super-lexical prefixes exhibit certain systematic distributional differences. They are compatible with different types of verbs. To give an example, in Russian the motion verbs come in a pair, i.e. directed and non-directed ones, and the lexical and super-lexical prefixes are respectively compatible with these two types as illustrated in the examples in (38) below:

- | | |
|--------------------------|----------------------------|
| (38) a. po-past' | b. po-padat' |
| along-fall.DIR | DISTR-fall.NONDIR |
| 'find oneself somewhere' | 'fall one after the other' |

(Svenonius, 2004, p. 238)

In (38a), the directed version of the verb 'fall' is used with the prefix 'po' that bears its spatial meaning, indicating that it is a lexical prefix. In (38b), on the other hand, the same prefix functions as a super-lexical prefix expressing a distributive meaning, and being felicitous with the non-directed version of the same verb, i.e. 'fall'.

The lexical prefixes are also distinguishable from the super-lexical ones in their ability to take part in forming secondary imperfectives. Secondary imperfectivization could be simply defined as the process whereby the imperfectivizing affix, i.e. *va-*, attaches to a prefixed perfective verb and renders it imperfective again. As can be seen in the examples below in (39), this affix is only

compatible with the constructions consisting of a verb plus lexical prefix, but not with a super-lexical one:

- (39) a. li-t' (IMP1) → raz-li-t' (PERF) → raz-li-va-t (IMP2)
 pour-INF apart-pour-INF apart-pour-IMP2-INF
 'to pour' 'to pour out' 'to pour out, to spill'
 (Galambos, 2007)
- b. pere-kusat'(PERF)/*pere-kusy-va-t
 DIST-bite
 'bite one after the other' (Svenonius, 2004)

Another important difference between these two kinds of prefixes is that only the lexical prefixes have been noted to induce telicity, hence only compatible with *in*-adverbials, while the super-lexical ones do not necessarily lead to a change in the lexical aspect of the verbal complexes they are part of because they are (only) compatible with durative adverbials like *for two minutes*. These facts are illustrated in (40) below:

- (40) a. On ot-krylp okno *(za) dve minuty.
 he FROM-covered window.ACC *(in) two minutes.
 'He opened the window in/*for two minutes.'
- b. On po-spalp (*za) dve minuty.
 he PO-slept (*in) two minutes
 'He slept *in/for two minutes.'

(Gehrke, 2008, p. 171)

In terms of prefix stacking, as far as the prefixes that co-occur with the same verb root are considered in Slavic languages, it has also been observed that the lexical prefixes are always closer to the verb root than the super-lexical ones, which

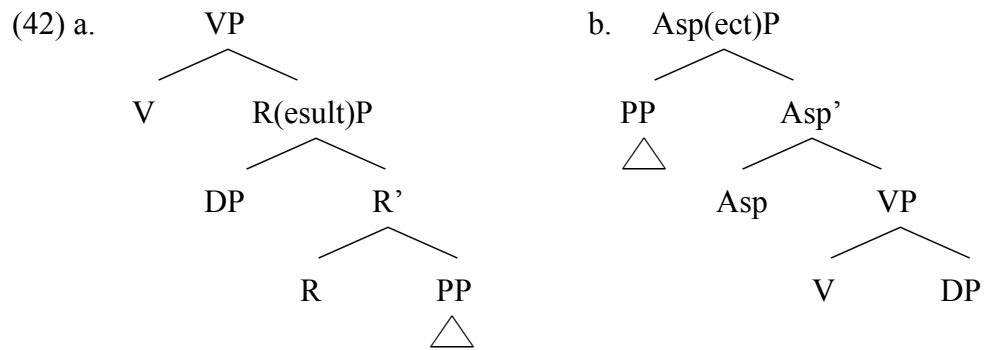
are to precede the lexical prefixes. The reverse order leads to ungrammaticality as illustrated in the examples below in (41), taken from Svenonius 2004 (his examples in (4)):

- (41) a. po-vy-brasyvatj / *vy-po-brasyvatj
 DIST-out-throw/ out-DIST-throw
 ‘throw out one by one’ (Russian)
- b. po-w-chodzili / *w-po-chodzili
 DIST-in-walk / in-DIST-walk
 ‘walk in one by one’ (Polish)

Also, notice that in the case of multiple prefixation, it is only the closest one, i.e. the lexical prefix, that could express a spatial meaning, the rest, i.e. the super-lexical prefixes, contributing an aspectually quantizing meanings such as Distributive in the example above, hence they behave as aspectual adverbs.

Svenonius (2004) is among the first to argue that different properties of the (super)lexical prefixes follow from the difference in their structural position, which is among the most often cited and accepted treatments of Slavic prefixes (Ramchand, 2004; Romanova, 2006; Di Sciullo & Slabakova, 2005 among others). Svenonius argues that the distinct properties of the two kinds of Slavic prefixes follow from the difference in their structural position, more precisely whether they are merged inside or outside the VP. The lexical prefixes, which are assumed to take part in the composition of the verb phrase in virtue of their VP-internal position (hence also the name internal prefixes), are expected to behave differently from those prefixes, i.e. super-lexical or external prefixes, which are merged over the VP.

In rough outline, Svenonius proposes the following two syntactic structures in (42) for the lexical and super-lexical prefixes of Slavic respectively:



The first piece of evidence for the VP-internal status of the lexical prefixes comes from the fact that they lead to an idiomatic meaning as can be seen by the following Russian examples below in (43) taken respectively from Svenonius (2004, p. 227) and Babko-Malaya (2003):

- | | |
|---------------------------|----------------------|
| (43) a. za-bitj/za-dušitj | b. za-sypatj/gladitj |
| (in/on)-beat/strangle | (in/on)-pour/iron |
| ‘beat/strangle to death’ | ‘fill up/iron out’ |

Following Marantz (1984), who argues that the idioms are formed through VP-internal elements, Svenonius comes to the conclusion that the lexical prefixes should be internal components of the verb phrases. He also compares the Slavic idiomatic VSCs with their counterparts in Germanic languages, like *tear up* and *burn up*, and draws the parallels between the two. Recall from Section 2.2.1 that the satellites, i.e. particles, in Germanic languages also yield idiosyncratic meanings just like their Slavic counterparts.

Another indication for the VP-internal status of the lexical prefixes is their (potential) influence on the argument structural properties of the verbal complexes they are a part of. As seen below, the prefixes enable an intransitive predicate to take an object, hence introduce a new argument to the structure as illustrated in the Russian examples below in (44) from Dimitrova-Vulcanova (2002) as cited in Svenonius (2004, his example (21a):

(44) a. Sobaka lezala (*odejalo).

dog lay blanket

‘The dog lay (*the blanket)’

b. Sobaka pro-lezala odejalo.

dog about-lay blanket

‘The dog wore out the blanket by lying on it.’ (Russian)

(Svenonius, 2004, his example (23c) taken from Jablonska 2003)

It should be noted at this point that the particles in Germanic languages are also known to exhibit similar effects on the argument structures of the predicates like their Slavic counterparts, the examples of which, namely the example (28), we have seen above in the relevant section on the Germanic languages. The two, therefore, seem to behave in parallel to each other in this respect, as well.

The super-lexical prefixes, on the other hand, are not associated with any of the effects discussed above; they therefore do not exhibit the aforementioned distinctive characteristics of the Germanic VSCs, as opposed to their lexical counterparts. We will not go any further into the details of the discussion regarding the super-lexical prefixes considering the purposes of the present section and the fact that the prefixes in PL do seem to pattern alike more with the lexical prefixes, rather than the super-lexical ones as will be discussed in the upcoming subsection on South Caucasian languages.

Despite the similarities mentioned above, the Germanic and Slavic satellites differ from one another in some respects. The clearest difference between the two lies in their morphological nature, i.e. particle vs. prefix distinction. Recall that in the Germanic literature there is disagreement as to whether the particles should project their own phrases and how to account for the variation in word order. Looking at the

Slavic satellites from this respect, it seems that things are clearer in the case of lexical prefixes, which are totally dependent on the verb root on the basis of the fact that they cannot be separated from their host under any conditions. Following from this, there seems to be a consensus on the idea that the lexical prefixes should undergo head movement from a lower position, the exact nature of which differs from one analysis to another, and left-adjoin to the verb, hence realizing as a prefix. The super-lexical prefixes, on the other hand, are more problematic in the sense that the head movement analysis runs into some theory-internal problems, which we will not discuss here considering the purposes of the present section. See Svenonius (2004b, 2012) for details.

2.2.3 South Caucasian languages (Svan, Georgian, Mingrelian, Laz)

Having discussed the VSCs in two SF language families, i.e. Germanic and Slavic, we can now move on to the last language family we will be concerned with in this study, namely the South Caucasian, which PL itself is a member of.

As mentioned before, PL is a dialect of Laz that belongs to the South-Caucasian language family together with Svan, Georgian and Mingrelian (Holinsky, 1991). One common property that all these languages share is to have a set of affixes that primarily express spatial relations, i.e. directionality and location, for which we will provide examples below. As will be shown, the satellites are in close interaction with the verb roots in virtue of their bounded nature, which is reminiscent especially of the Slavic prefixes. Based on the similarities in the nature of the VSCs in these two language families and also on the discussion above regarding PL being (possibly) classified as a SF language as also suggested by Kutscher (2011), we will simply assume for the purposes of this study that the sister languages of Laz also use

the same strategy even though we are aware of the fact that such a claim requires more empirical evidence and an extensive study, which we are in no position to provide here. It should also be noted that Talmy (2000a,b) does not specifically mention the South Caucasian languages, hence leaves it open to which typological pattern these languages exhibit.

As opposed to the Northeastern Caucasian languages like Avar and Lezgian, whereby the spatial relations are encoded through case markers on nouns (Haspelmath, 1993; Pantcheva, 2011 among others), the South Caucasian languages have a relatively limited spatial case system, but instead a more developed affixal system marking the spatial relations on verbs. The nature of this spatial prefixal system is, on the other hand, different in each member of this language family. A brief comparison of these languages in this respect reveals that Laz and Mingrelian have a more complex and intricate spatial affixal system compared to Svan and Georgian that have less affixes. In (45) we provide illustrative examples of the VSCs from each of these languages, which are taken from Holinsky (1991) unless otherwise specified:

- (45) a. sga-ad-x-o-shq'ad qarqte
 'He jumped into his mouth' (Svan, glosses are not involved)
- b. ga-prin-d-eb-a
 PRV-fly-INTRS-FUT.3PS
 'It will fly away' (Georgian)
- c. me- çur-un-s
 away-swim-TS-PRST.3SG
 's/he is swimming away '
- (Mingrelian; Ivanishvili & Soselia, 2011)

d. dolo-xt-u

INTO-go-PAST.3SG

‘S/he went down inside’

(Glosses are mine)

As can be seen in the examples above, the satellites, i.e. prefixes, in South Caucasian languages seem to be reminiscent of those of the Slavic languages rather than the Germanic ones in terms of their (in)separability. Another indicative fact for this also comes from the perfectivizing nature of these prefixes suggested for some languages like Georgian (Holinsky, 1991). Likewise, the prefixes in Slavic languages have also been associated with perfectivity and telicity (Gehrke, 2008 and the references therein). Leaving the details of the discussion regarding other South-Caucasian languages that are beyond the scope of this thesis, let us now turn our focus particularly to Laz and its dialects, one of which is the main focus of this thesis, i.e. PL.

Among the five dialects of Laz, which could be classified into two groups as Eastern and Western Laz, we will only be concerned here with two particular ones, namely Ardeshen and PL, both of which belong to the Western group.

Kutscher (2007, 2010, 2011) provides a detailed descriptive account of the Ardeshen verbal prefixes and focuses mainly on the semantic conceptualization of spatial relations and expressions in this particular dialect, based on which she comes to the conclusion that PL employs the satellite-framed strategy in Talmy’s typology (2000a,b). A comparison of the two aforementioned dialects reveals that the spatial prefixes overlap to a great extent in spite of slight differences in meaning and phonological shape. The two dialects, on the other hand, differ from one another with respect to their case system. To put more clearly, while PL seems to preserve its morphological case system, the Ardeshen dialect has lost it to a great extent as also

suggested in Öztürk (2008). This difference becomes more significant when it comes to the constructions that express the spatial relations. Recall from above that the Ground is marked with the locative case in PL whereas it is not marked, hence in its bare form in Ardesen Laz. Observe this discrepancy illustrated in the two examples below in (46):

- (46) a. Tasi masa goo-dg-u-n.
 bowl table on-stand-3A-SG-PRS
 ‘The bowl is (standing) on the table.’ (Ardesen; Kutscher, 2011, p. 53)
- b. Tasi masa-s goyo-dg-u-n. (PL)

The difference illustrated in the examples above and others will not be further discussed in the present study due to the fact that our focus will be placed primarily on the Pazar dialect. We will therefore leave such a discussion to further studies and only focus now on PL in more details in light of the discussion above on the Slavic and Germanic languages.

The first thing to note about the spatial prefixes in PL is that they can never be separated from the verbal root under any conditions, be it movement or affixation, i.e. they are totally dependent on it. Furthermore, their position in the verbal complex is fixed as illustrated in Table 1. These facts seem to suggest that these markers form one lexical unit with the verb root, hence merit the word status, as in the case of Slavic prefixes but crucially not like the so-called Germanic separable prefixes, i.e. particles, which have been shown to exhibit syntactic autonomy and positional variability as discussed thoroughly with illustrative examples in the preceding subsections.¹⁵ Therefore, the Complex predicate analyses seem to better account for them rather than the Small Clause analyses.

¹⁵ Throughout this study, we will assume that the spatial markers in PL are prefixes based on the fact that they are totally dependent on the verbal head. The prosodic properties of these markers, on the

Further evidence for the lexical status of the spatial prefixes in PL comes from the fact that they can lead to idiosyncratic or idiomatic meanings as in illustrated in the examples (47) and (48) below:

- (47) a. *gama* ‘out’+*dvalu* ‘put’= ‘to be spread out’
 b. *gama* ‘out’+*kot’u* ‘fold’= ‘to slap’
 c. *ama* ‘into’ + *şk’omu* ‘eat’= ‘to snack’
 d. *ce* ‘down’+*xvalu* ‘cough’= ‘to reproduce’
 e. *ela* ‘near’+*balu* ‘pour’= ‘to disturb’
- (48) a. *gama* ‘out’+ *cibu* ‘cook’/ *çodu* ‘finish’= ‘to cook/finish in one breath’
 b. *dolo* ‘down into’+*t’k’obu* ‘hide’/ *k’limu* ‘hold’= ‘to hide/hold to death’

Recall that satellites both in Slavic and Germanic languages have been shown to be associated with similar interpretational effects. Likewise, it seems to be the case that the spatial prefixes in PL have an influence on the argument structural properties as their Slavic and Germanic counterparts as illustrated in (49) below:

- (49) a. *Μludi-k* (*ğurni*) *ş’k’om-u*.
 squirrel.ERG hive.NOM eat-PST.3SG
 ‘The squirrel ate (the hive).’
- b. *Μludi-k* (**ğurni*) *gama-ş’k’om-u*
 squirrel.ERG hive.NOM OUT-eat-PST.3SG
 do *gama-xt-u*.
 and OUT-go-PST.3SG
 ‘The squirrel ate out the hive and went out.’

This example demonstrates that although the object is optionally used with the verb ‘eat’ in PL, when this verb is prefixed with *gama-*, the object becomes

other hand, also need to be studied. More precisely, the stress-related properties of these markers might also lead to the fact that they are clitics rather than prefixes. We leave this issue to further studies. I thank Prof. Aslı Göksel for bringing this issue to our attention.

obligatory and cannot be dropped, which suggests that the argument structural properties of the VSCs in PL might be different from that of the verbal roots as also observed in Slavic and Germanic languages.

Based on the facts presented above, it can be concluded that the (so-called) satellites in PL are associated with similar properties as their counterparts in Germanic and Slavic languages. Following from this, it seems possible to argue that the analyses proposed for these languages can also be extended to PL. More precisely, as far as PL is considered in terms of Svenonius's analysis (2004), it seems that the spatial prefixes in PL also have VP-internal status, hence exhibit the properties of the lexical prefixes in Slavic languages, rather than super-lexical ones.

Despite the similarities discussed above between PL and Indo-European languages that are of our concern here, it should be noted that PL differs from them in some respects. Firstly, the spatial prefixes of PL do not seem to be drawn from the adpositional inventory as opposed to the case in the members of the aforementioned language families. Recall that in Slavic, leaving aside a few cases, the majority of the prefixes have homophonous prepositional counterparts, both of which denote the same meaning. Likewise, most of the particles in Germanic languages can also function as prepositions. As far as PL is considered in this respect, the prefixes seem not to be homophonous with the postpositions that bear similar meanings as those of the prefixes as illustrated by the pairs in (50) below:

(50) <i>Prefix</i>	<u>Postposition</u>	<u>Meaning</u>
a. <i>eyo-/goyo-</i>	<i>jin</i>	'on top of'
b. <i>ets'o-</i>	<i>tude</i>	'under/below'
c. <i>mok'o-/ek'o-</i>	<i>qap'ula</i>	'behind'

d. <i>ç'eşk'a-</i>	<i>oşk'enda</i> ¹⁶	‘at the center of’
e. <i>k'ots'o</i>	<i>tz'oxle</i>	‘in front of’

Secondly, it should be noted that the prefixes in PL cannot stack on each other. In other words, there is no prefix-stacking in PL as opposed to the Slavic languages. Recall from the previous subsection that the prefixes are divided into two main groups in Slavic, i.e. lexical and super-lexical prefixes. And in cases whereby more than one prefix is used with a verb root, the lexical prefixes are to be closer to the verb root and bear spatial meanings whereas the super-lexical ones come on top of the lexical prefixes and function as aspectual adverbs. Some of the prefixes in PL seem to be associated with adverbial meanings along the lines of the Slavic ones like *Completive* or *Repetitive* as illustrated in (51) below:

(51) Bere-k	mjalva	gama-ş-u.	
child.ERG	milk.NOM	OUT-drink-PST.3SG	
‘The child drank the milk up.’			(Completive)
b. Hemu-k	şee-pe	meyo-nax-u.	
s/he.ERG	clothe-PL.NOM	OVER-wash-PST.3SG	
‘S/he washed the clothes again.’			(Repetitive)

Despite the availability of the aforementioned meanings for a very small group of prefixes in PL (which will be outside the scope of this thesis), it is never the case that these prefixes can come on top of another prefix that bears a spatial meaning as in the case of Slavic languages. Based on this, it can be concluded that the prefixes do not stack in PL as opposed to the case in Slavic languages.

As a final difference between the prefixes of Slavic and PL, we are going to mention their influence on the *aktionsart* of the verbs. Recall that the lexical prefixes

¹⁶ It should be noted that this form involves the root *şka* which means ‘waist’ in PL. In this respect, it can be said that both the prefixal and postpositional form involve the same root. Likewise, the forms in (e) seem to have a part in common, i.e. *ts'o-*, which is not a word by itself as in the case of *şka*.

in Russian and Slavic in general induce telicity as suggested by (Gehrke, 2008 among others). When PL is considered in this respect, it seems to be the case that the use of a spatial prefix with a verb does not necessarily render the eventuality telic as illustrated in (52) and (53):

- (52) Top'ri {vit t'ekek'e-n/t'ek'ek'e-s} meyo-nkt-es
honey.NOM ten minute-for/minutes.LOC OVER-transfer-PST.3PL
'They transferred the honey (to another pot) for/in ten minutes.'
- (53) On ot-krylp okno *(za) dve minuty.
he FROM-covered window.ACC *(in) two minutes.
'He opened the window in/*for two minutes.'

Notice that, in PL, in addition to the *in*-adverbial, the verb is still compatible with the durative adverbial *for ten minutes*, which suggests that the presence of the prefix does not seem to induce telicity as opposed to the case in Russian discussed in the previous subsection and illustrated with the example (40a), repeated here as (53).

To summarize the discussion so far on PL, it can be said that the spatial prefixes in PL share many properties with their Germanic and Slavic counterparts in that they all lead to idiosyncratic or idiomatic meanings and influence the argument structure of the verbal complexes they are part of. They, however, differ in some other respects as discussed above.

One last thing worth mentioning before closing off this section is that our study is also significant in that it will be among the first studies to provide a syntactic account of the spatial prefixes in South Caucasian languages since the earlier works, that are also limited in number, such as the ones conducted by Kutscher (2007, 2010 and 2011), do not involve a syntactic discussion.

2.3 Summary

In this chapter, our aim was to look at PL from a typological perspective with the purpose of providing an understanding of its position relative to other languages since it is an understudied, hence a relatively less known, language. For that reason, we first introduced and presented the basics of the typological system developed by Talmy (2000a,b) that provides a classification system that has become very influential in the literature. In this respect, it was shown that PL appears to pattern with Indo-European languages (except for Romance) in that both belong to 1) the Motion+Co-event (Manner) class in terms of what additional semantic component of a motion event is conflated into the verb root along with the Motion, and 2) the Satellite-framed class based on the fact that the Path appears to be expressed through what Talmy refers to as ‘satellites’, specifically by the spatial prefixes as also suggested by Kutscher (2011). It was also stated in this section that we will argue against the claim that PL belongs to the s-framed languages in this study and suggest that the status of PL as a member of this typological class needs to be questioned under the analysis that will be developed basically in Chapter 4.

Later in Section 2.2.1 and 2.2.2, we turned our attention to two particular language families belonging to the latter type mentioned above, i.e. Satellite-framed languages, whereby the satellites like particles or prefixes show close interaction with the verbs and form one unit together with them, which was simply referred to as Verb-Satellite Constructions, i.e. VSCs. For this purpose, we discussed and presented examples of the VSCs in Germanic and Slavic languages and provided a survey of the linguistic accounts with the belief that such a discussion would give us insights as to how the VSCs in PL could be dealt with. Another aim for the inclusion of this discussion was to show that the VSCs are in fact quite common across

languages and not specific to PL. The discussion in this section indicated that although the satellites differ in their morpho-syntactic properties in the two aforementioned languages, they could essentially be analyzed similarly as resultative constructions.

Lastly, we turned to the South Caucasian languages, which we believe to exhibit the properties of the satellite-framed languages in having VSCs that are similar to their counterparts in especially Slavic languages. Since this thesis is only concerned with the intricate spatial prefixal system of PL, it was stated that the discussion on the sister languages and dialects of PL will be excluded from the discussion and will be left to further studies. In this section, a comparison between PL and the Slavic/Germanic languages was also made in light of the discussion on these Indo-European languages in Section 2.2.1 and 2.2.2. It was specifically demonstrated that the spatial prefixes of PL behave alike their Germanic and Slavic counterparts in having certain interpretational and argument structural effects. They were shown, however, to differ from them in not being drawn from the adpositional inventory. Moreover, it was specifically shown that the prefixes in PL do not stack or seem to induce telicity as in the case of Slavic languages.

As a final remark, the significance of the present thesis was highlighted. Specifically it was stated that it carries importance in being one of the early studies on the VSCs in the South Caucasian languages in general and to the best of our knowledge the first one to provide a syntactic account of these constructions in PL, which is an endangered language. For that reason, we believe it will make important contributions to the literature.

CHAPTER 3

DESCRIPTION OF THE SPATIAL PREFIXES

The aim of this chapter is to provide a comprehensive description of the meanings denoted by the spatial verbal prefixes of PL. As will be shown in the following parts of the present chapter, a single prefix can encode information related to different types of spatial relations. The meanings that each of these prefixes contributes will be presented with illustrative examples and also by reference to the pictures designed for Topological Relations Picture Series (Bowerman & Pederson, 1992) and Picture Series (Felix et al., 1999) when appropriate. As also mentioned before, the reader is referred to the Appendices section for the illustration of the relevant pictures.

As for the organization of this chapter, rather than handling each prefix on an individual basis, we will discuss them within groups and sub-groups that are formed based on the morphological and semantic properties that the prefixes exhibit. For this purpose, we will basically rely on the classification developed in Öztürk and Pöchtrager (2011), though with some modifications and adjustments. The relevant changes will be made clear in the following parts of this chapter together with the motivations behind them.

PL has 27 verbal prefixes expressing spatial relations, i.e. location and/or direction, which occupy the second slot in the verbal complex as highlighted in the preceding chapters. The full list of these morphemes with rough English translations is given in Table 4:¹⁷

¹⁷ Table 4 is a modified version of the table given in Kutscher (2011) who focuses on the spatial verbal morphemes in the Ardesheh dialect of Laz. There are phonological, morphological and semantic differences among different dialects of Laz with respect to the properties of these markers. Since we will in this thesis focus only on the spatial markers in Pazar dialect, we shall refer the reader to the relevant sources (Kojima&Bucak'lışı (2003), Lacroix (2009) and so on) for a detailed description and discussion of the spatial morphemes in other dialects of Laz.

Table 4. The Full List of the Spatial Prefixes in PL with Rough English Translations

Directional Domain	Deictic Domain
Horizontal Domain	Deictic
ama-: ‘into, inwards’ gama-: ‘out of, outwards’ gola-: ‘horizontally forward’ meşk’a-: ‘into, through a narrow, cramped space’ moşk’a-: ‘out of a narrow, cramped space’	me-: ‘thither, targeting a vertical surface’ mo-: ‘hither’
Vertical Domain	Deictic +Directional
e-: ‘up, upwards’ ce-: ‘down onto, downwards’ do-: ‘down onto the ground’ dolo-: ‘into, down through’ cela-: ‘diagonally down’ ela-: ‘diagonally up’ eşk’a-: ‘up (through), amidst’ eyo-: ‘onto a higher surface’ goyo-: ‘onto a lower surface’	mola-: ‘hither along, into a closed space’ meyo-: ‘across thither, on top of’ moyo-: ‘across hither’
Projective	
ets’o-: ‘under, below’ kots’o-: ‘in(to) front of, bottom’ ç’eşk’a-: ‘middle/center’ mok’o-: ‘behind, back’ ek’o-: ‘behind, back + upwards’ k’oşk’a-: ‘in between, amidst’ ç’ek’o-: ‘at the tip of the backside of’	
Circum	
go-: ‘around’	

Öztürk and Pöchtrager (2011) divide the whole set of verbal prefixes of PL into two basic groups: i) Simplex Forms, and ii) Complex Forms. As the names suggest, this classification is based on the morphological complexity of the spatial prefixes. That is, the prefixes grouped under the former group, i.e. simplex ones, are the ones,

which are mono-morphemic whereas the complex prefixes, are derived via combination of the simplex forms with a series of another set of verbal prefixes which follow the simplex forms. Since we will elaborate on the meanings associated with each of these prefixes below, let us now focus on the ways in which our analysis will diverge from Öztürk's, which is going to be crucial for understanding the discussion in the present chapter.

Under the group of simplex forms, Öztürk and Pöchtrager (2011) include the following prefixes given in (54):

(54) Simplex Forms: *ama-*, *gama-*, *ce-*, *e-*, *do-*, *me-*, *mo-*, *go-*, *menda-*.

As for the complex forms, they provide the prefixes given in Table 5:

Table 5. Complex Forms in Öztürk and Pöchtrager (2011)

		k'o/-xo	la	şk'a	ts'o	yo
Simplex Prefixes →	ce	ç'ek'o	cela	ç'eşk'a	-----	-----
	e	ek'o-/exo	ela	eşk'a	ets'o	eyo
	go	k'ok'o ¹⁸	gola	k'oşk'a	k'ots'o	goyo
	me	-----	mela ¹⁹	meşk'a	-----	meyo
	mo	mok'o	mola-	moşk'a	mots'o ²⁰	moyo
	do	-----	dolo	-----	-----	-----
	(-)	ok'o/oxo ²¹	-----	-----	-----	-----

For the reasons that will be clear in the following parts of this chapter, we will adopt a modified version of the above classification. Specifically, we will argue that some of the simplex forms should be treated separately based on their morpho-syntactic

¹⁸ The meaning which is added by this prefix is splitting into two as in the following examples: *k'ok'o-ntxozu* 'to braid hair (into two braids)', *k'ok'o-çirdu* 'to tear into two' and *k'ok'o-k'vatu* 'to cut into two'. Based on the fact that this prefix does not express a spatial relation, we will leave this prefix out of the discussion in this thesis.

¹⁹ Öztürk and Pöchtrager (2011) state that this prefix does not have a transparent meaning and its use is restricted to only a few verbs. For that reason, it will be left out of the discussion in this thesis.

²⁰ As in the case of *menda-*, this prefix will be taken out of the class of complex forms in PL on the basis of the fact that it is restricted to a certain limited number of verbal roots and its meaning is adverbial rather than spatial. This marker indicates a sudden (upward) movement.

²¹ Even though Öztürk and Pöchtrager (2011) include this prefix within the list of complex spatial prefixes, this prefix will also be excluded from this list on the basis of the fact that the meaning associated with this prefix is not spatial. This marker seems rather to be the reciprocal marker in this language, hence valency-related.

and semantic properties. Therefore, we will go for a sub-division within the group of simplex forms. In addition, some of the prefixes, be it simplex or complex, will be excluded from the discussion of the present thesis due to the fact that they are either used rarely with a very limited number of verbs, hence not productive, or the meaning that they convey cannot be considered to be spatial. For instance, one of such prefixes is *menda-* that is used only with two verbs and contributes an adverbial meaning like the action being executed by force.

Another important point which is worth mentioning is that not all complex forms can be analyzed as being composed of a combination of two separate morphemes, hence need not to be morphologically complex but could be considered mono-morphemic. Nevertheless, they will be taken under the complex forms for the sake of the classification developed in this chapter and for ease of reference. For that reason, the terms ‘simplex’ and ‘complex’ need not always be indicative of morphological complexity. Which prefixes could be analyzed as morphologically complex under which interpretations will be made clear in the following sub-sections. It should be noted at this point that in the next chapter, i.e. Chapter 4, where we classify the spatial prefixes based on their compatibility with stative verbs, we will also use the term ‘complex’. As also will be made clear later, in that chapter, this term will refer to syntactic complexity (and morphological complexity only in some certain cases).

This chapter is organized as follows: In Section, 3.1 we discuss the Simplex prefixes of PL. There sets of different prefixes will be introduced in this section. In the following section, i.e. Section 3.2, we turn to the set of prefixes that we refer to as Complex prefixes. The prefixes in this section are divided into 5 different sub-

groups according to their morphological similarity and also complexity in some certain cases as will be made clear in the remainder of the current chapter.

3.1 Simplex prefixes

One of the main properties of the simplex forms is that they are mono-morphemic prefixes, which basically modify the verb in terms of directionality and location.

Despite the similarity in their meanings and morphological structure, not all of the forms under this group, however, behave the same. Some of the simplex prefixes seem to diverge from the others in certain respects.

One major distinction among the members of the simplex forms lies in their ability to function as the base for the addition of another set of verbal prefixes and, in combination with these markers, to give rise to a complex prefix. In this respect, the following prefixes in (55) seem not to take part in such a morphological process as illustrated in the Table 5 above:²²

(55) *ama-*, *gama-*, *do-*

We will take these non-co-occurrence facts to be indicative of the nature of the morpho-syntactic structure of these markers. Based on these facts, we also believe that these three markers should be treated separately from the other prefixes that take place in *complex prefix formation* process. In the relevant sections below, we will provide answers as to why it is the case that only these three prefixes behave

²² The prefix *menda-* in Öztürk's classification will be taken out from the list of simplex forms in this thesis due to the following two facts:

(i) Its meaning is not spatial but rather adverbial. It adds the meaning that the event is carried out by force.

(ii) It is not productively used in the language. There are only two verbal roots that this prefix co-occurs with. These two verbs are as follows: *mend-oyonu* 'take something by force' and *mend-oğmalu* 'take something alive by force' (Öztürk & Pöchtrager, 2011, p. 103)

as aforementioned. Specifically, we will argue that this might be related to the semantic properties of these particular prefixes.

Setting aside the abovementioned distinctively behaving prefixes, the rest of the simplex forms in Öztürk and Pöchtrager (2011) will be grouped together in this section on the basis of the fact that they can be a component of a complex prefix. This sub-group of the simplex forms will be discussed and introduced in Section 3.1.1. The following sub-section will be devoted to the prefixes *ama-* and *gama-*. Lastly, in section 3.1.3, we will describe the meanings associated with the prefixes *do-* and *dolo-*.

3.1.1 *ce-*, *e-*, *go-*, *me-*, *mo-*

As also stated above, the common property shared by the prefixes in this subsection is to be a component of a complex form in combination with another set of prefixes that will be introduced and discussed in Section 3.2. With respect to their meanings, these prefixes seem to encode information regarding the nature of direction of an event. In addition to this, as we will show below, some of these markers could also be used to specify the location of an entity.

3.1.1.1 *ce-*

There are two basic meanings that this prefix denotes. The first one is a directional one in which it expresses a downward movement as in (56):

- (56) K'oçi nca-şe c-u-l-u-n.
man.NOM tree.ABL SP-PRV-go-TS.IMPRF-3SG
'The man is going down from the tree.'

The second meaning of this prefix seems to be a locational one. It is used when an action takes place or an object is located on a specific surface as illustrated below in (57):

(57) a. Şana-k lazuth-epe gza-s ko-c-o-gz-u.
 Şana.ERG corn-PL.NOM road.LOC Aff-SM-PRV-burn-PST.3SG
 ‘Şana burnt the corns on the road.’

b. Oşk’uri tabaxi-s ce-dz-u-n.
 apple.NOM plate.LOC SM-lie-TS.IMPRF-3SG
 ‘The apple is on the plate.’ (TRPS 19)

c. Mats’indi khithi-s c(e)-u-dz-u-n.
 ring.NOM finger.LOC SM-APPL.3SG-lie-TS.IMPRF-3SG
 ‘The ring is on the finger.’ (TRPS 10)

The use of this prefix in the two configurations depicted in TRPS examples show us that this prefix is also used to indicate that the objects are located on the canonical surfaces whereby one would find or situate them generally, such as a ring being placed on a finger, which is also pointed out to us by our informant.

3.1.1.2 *e-*

This prefix could be considered as the antonym of the previous one because it denotes an upward movement. Below is an example in (58) illustrating the directional meaning of this prefix:

(58) Seleni-k ar kva e-thoç-u.
 Selen.ERG a stone.NOM SM-throw-PST3SG
 ‘Selen threw a stone up (in the air).’

As opposed to the previous prefix discussed above, i.e. *ce-*, this form, however, seems only to express a directional meaning and lack any locational meaning.²³ For that reason, the sentence above only suggests that the stone has moved upwards without making any further specifications with respect to the location it might end up at the end of this process.

3.1.1.3 *go-*

There are different meanings associated with this prefix. It could be used when an event does not proceed in a particular direction but in many different directions. For example, the use of *go-* in (59) below indicates that the seeds of the corn all are scattered all around the garden going in various directions:

- (59) Lazuthi ntasi livadi-s ko-go-ntas-u.
 corn seed.NOM garden.LOC Aff-SM-plant-PST.3SG
 ‘S/he planted the corn seeds in(to) the (different parts of) garden.’

When used with a verb which denotes movement, the same meaning seems to arise. This is illustrated in the example below in (60):

- (60) Raqan-epe-s go-v-u-l-ur-Ø.
 hill-PL-LOC SM-SUBJ.1SG-PRV-go-TS.IMPRF-1SG
 ‘I am going/wandering around the hills.’

In addition to the interpretation above, *go-* could also express that an object is located around another one. This is illustrated in the example in (61), whereby the objects are understood to be in the area that covers the area around the Ground objects, i.e. the tree and the fire respectively:

²³ We should note that this prefix might encode a locational meaning and denote that the Figure could be located on the upper surface of something in Vitze dialect. Since our focus is only on the Pazar dialect, whereby this prefix has no such entailments, we will disregard this fact for the purposes of this thesis.

- (61) a. Toyçi nca-s go-khor-u-n.
 rope.NOM tree.LOC SM-wrap-TS.IMPRF-3SG
 ‘The rope is around the tree.’ (PS 44)
- b. Daçxuri-s ququma-pe ko-g-u-dg-u.
 fire.LOC cauldron-PL Aff-SM-APPL-put-PST.3SG
 ‘S/he put the cauldrons around the fire.’

Lastly, this prefix could also refer to the area around an entity. Thus, if it is the case that such type of an area is targetted by an event, *go-* seems to be used as illustrated in (62) below:

- (62) Nca-s g-u-berg-am-s.
 tree.APPL SM-APPL-dig-TS.IMPRF-3SG
 ‘S/he digged the area around the tree.’

3.1.1.4 *me-*

There are three different meanings associated with this prefix. The first one of these is a deictic one. It is used when an event involves movement away from the reference point of the speaker. Therefore, if someone is moving away from the speaker, the speaker expresses this by using this prefix as in the example in (63) below:

- (63) Fante hişo me-l-u-n.
 Fante.NOM there SM-go-TS.IMPRF-3SG
 ‘Fante is going that way/there.’

One thing to note regarding this particular meaning of this prefix is that it is used even if the speaker is moving together with someone or something, which suggests that this prefix takes into consideration the reference point of the speaker but not only the speaker as an individual. In the sentence below in (64) for example,

since the objects are carried by the speaker to another place away from the present location of the speaker, this marker is used:

- (64) *Dişqa-pe hişo me-v-i-ğ-am- Ø.*
 wood-PL.NOM there SM-SUBJ.1SG-PRV-bring-TS.IMPRF-1SG
 ‘I am taking the wood away to there.’

The second meaning that *me-* denotes is an idiosyncratic one. This marker also expresses an action targetting a vertical space such as a wall, a tree and so on. Notice that under this interpretation, the suppletive form *no-* is used. The examples below in (65) illustrate this meaning:

- (65)a. *Gubazi-k qoda-s tzqari no²⁴-b-am-s.*
 Gubaz.ERG wall.LOC water.NOM SM-pour-TS.IMPRF-3SG
 ‘Gubaz is pouring water on the wall.’
- b. *Mskala qoda-s no-dg-u-n.*
 ladder.NOM wall.LOC SM-stand-TS.IMPRF-3SG
 ‘The ladder is leaning against the wall.’ (TRPS 58)
- c. *Dişk’a nca-s no-dz-u-n.*
 wood.NOM tree.LOC SM-lie-TS.IMPRF-3SG
 ‘The stick is leaning against the tree.’ (PS 50)

Lastly, this marker has also an idiosyncratic meaning. On this interpretation, *me-* denotes that only a small portion or some parts of the object is/are involved in the event, hence could be translated as ‘partially’ as in (66):

- (66) *Porça me-m-a-şor-u.*
 shirt.NOM SM-OBJ.1SG-APPL-get wet-PST.3SG
 ‘Some part of my shirt got wet./My shirt got partially wet.’

²⁴ Our informant suggests that *no-* should be considered a suppletive form of *me-*. Since only under the interpretation described above, i.e. having some relation to a vertical surface, it could also be the case that this prefix is treated as a separate form.

3.1.1.5 *mo-*

This prefix, just like the one above, has a deictic meaning which is just the opposite of *me-*, that is, it expresses a movement which proceeds towards the speaker or it could also denote an event which targets the speaker. The examples in (67) illustrate these meanings and also the contrast between the two deictic markers in PL:

(67) a. Ayşe haşo m(o)-u-l-u-n.

Ayşe.NOM here SM-PRV-go-TS.IMPRF-3SG

‘Ayşe is coming this way/here/ towards me.’

b. Si ma para mo-m-ç-i

you.ERG I.DAT money.NOM SM-OBJ.1SG-give-PST.1SG

ama, ma si aina para var me-k-ç-i.

but I.ERG you.DAT any money.NOM NEG SM-OBJ2SG-give-PST.2SG

‘You gave me money but I did not give you any money.’

Considering this deictic directional meaning associated with this prefix, one might not expect to find it being used in configurations depicting the location of an entity or an object. This, however, does not seem to be the case as illustrated in the example below in (68):

(68) Modvala quçxe-s mo-dz-u-n.

shoe.NOM foot.LOC SM-lie-TS.IMPRF-3SG

‘The shoe is on the foot.’ (TRPS 21)

This example seems rather interesting because this is the only configuration whereby *mo-* is used amongst all pictures of TRPS and PS to refer to the location of an object, i.e. the shoe in this particular example. The use of *mo-* in this example seems to be the result of the fact that *mo-* is also used when someone wears

something which is to be worn somewhere below the waist such as trousers, socks, shoes and so on. These facts are illustrated in (69):²⁵

(69) Oxorca-k modvala ko-mo-y-d-u.
 woman.ERG shoe.NOM Aff-SM-PRV-put-PST.3SG
 ‘The woman put on (her) shoes.’

Therefore, in the TRPS example above in (68), *mo-* appears not simply to be used in order to indicate the (final) location of the entity at issue but it also seems to encode information as to the nature of the process that leads to the final result holding for the object, that is, the wearing process.

3.1.2 *ama-*, *gama-*

The two prefixes to be discussed in this sub-section seem to have the opposite meaning of each other, hence could be considered as antonyms. Let us now start our discussion with the first one of these two prefixes, i.e. *ama-*.

3.1.2.1 *ama-*

The basic meaning associated with this prefix is that the action is directed into ‘something/somewhere’. Following from this, it is usually used to indicate a movement into a closed space such as a building like a house etc. However, what needs to be stated at this point is that it is also not the case that this prefix requires the existence of a building-like entity. Movement into any place having certain borders and occupying a certain restricted area could be expressed via using of this prefix as in the case of ‘going into the garden (or a field)’ in the example below in (70):

²⁵ For clothes which are to be put on above the waist, the prefix *dolo-* is used.

(70) Qoçi oxori-şe/livadi-şe k-ama-xt-u.
man.NOM house-ALL/garden-ALL Aff-SM-go-PST.3SG
‘The man went into the house/ garden.’

Even if a person is not moving into a space of the sort described above but his/her action is directed into something, it is possible to use this prefix as illustrated in the example in (71):

(71) Eqna-s no-gut-u do oxori-s k-ama-qi-u.
door.LOC SM-stand-3SG and house.LOC Aff-SM-shout-PST.3SG
‘S/he stopped in front of the door and shouted towards inside the house.’

Another important thing regarding the meaning of this prefix is that it seems to be indicative of the origin of the event as well as the goal of it, i.e. inside a place. This follows from the fact for an event to be directed into/towards the inside of a place or an entity, the event is assumed to start somewhere outside of the location at issue. In the sentence below in (72), for example, for the mother to be able to send the cows into the barn, the cows are assumed to be outside the barn:

(72) Nana-k puc-epe axiri-s k-ama-şq-u.
mother.ERG cow-PL.NOM barn.LOC Aff-SM-send-PST.3SG
‘The mother sent the cows into the barn.’

Lastly, possibly as an extension of the meanings discussed above, this prefix could also be used metaphorically. In the sentence below in (73), for example, the use of this prefix suggests that the person comes into the state of bearing/having something that s/he has been outside the possession of before, such as a sin:

(73) Qoçi cunaxi-s k-ama-xt-u.
man.NOM sin.LOC Aff-SM-go-PST.3SG
‘The man committed a sin. (Literally, the man went into sin.)’

3.1.2.2 *gama-*

The main meaning expressed by this prefix is the opposite of that of the one discussed in the previous subsection, namely *ama-*. That is, it is used to indicate an action that originates in a place of the kind discussed above for *ama-*, but is directed towards outside of that place as illustrated in (74) below:

- (74) a. Puc-epe axiri-şe ko-gama-xt-u.
cow-PL.NOM barn-ALL Aff-SM-go-PST.3SG
'The cows went out of the barn.'
- b. Çuqani axiri-şe ko-gam-i-ğ-u.
cauldron.NOM barn-ABL Aff-SM-PRV-bring-PST.3SG
'S/he took the cauldron out(side) of the barn.'

3.1.3 *do-*, *dolo-*

The two prefixes to be discussed in this sub-section both seem to have certain specifications on the properties of the Ground that the event is related to. In addition, both of them appear to be associated with a downward movement, as we will show below. Besides, they also seem to be phonologically similar to each other. Based on these similarities between the two markers, we will discuss and describe them together in this sub-section.

A further regard needs to be made about the prefix *dolo-*, which has been considered as a complex form in Öztürk and Pöchtrager (2011) but will be discussed under the simplex forms here. We believe that this prefix could be treated more like a simplex form rather than a complex one due to the following reason: Recall that *do-* does not seem to combine with any of the prefixes to form a complex prefix other than *la-* in Table 5 above. It would be rather odd for this marker to co-occur with only one of the prefixes skipping the others. Besides, as we will later show, the

semantic contribution of *la-* is somewhat non-transparent. For that reason, we will discuss this marker under simplex forms. We will turn to this discussion below.

3.1.3.1 *do-*

This prefix expresses that the event denoted by the verb takes place on or is directed to the ground. An important point is that the ground is used here in its canonical/general sense and refers to the solid surface of the earth. In other words, this prefix is used when the Ground (with a capital G) is specified as the *ground* (with a small letter g). We believe that the reason as to why this prefix does not seem to function as a base for the process of complex prefix formation, hence the gaps in the Table 5 above. To put more explicitly, since one could not identify different sides of the *ground*, *do-* appears not to be able to combine with the prefixes seen in the Table 5. Below there are some examples in (75) whereby the meanings of this prefix are illustrated:

- (75) a. Gubazi-k obardale ko-do-tson-u.
 Gubaz.ERG stake.NOM Aff-SM-thrust-PST.3SG
 ‘Gubaz thrusted the stake into the ground.’
- b. Livadi-s xaci do-d-um-s.
 garden.LOC bean.NOM SM-put-TS.IMPRF-3SG
 ‘S/he is planting beans in the garden.’
- c. Lobyä do-bğ-u-n.
 bean.NOM SM-scatter-TS.IMPRF-3SG
 ‘The beans are on the ground.’ (PS 9)

One last important thing to note regarding this prefix is that it could also be argued to denote an event that proceeds downwards as has been done in Öztürk and

Pöchtrager (2011). We believe that such an interpretation results from the meaning described above. In other words, an event that is directed towards the ground could only occur in a downward manner due to the obvious reasons.

3.1.3.2 *dolo-*

This prefix implies that the Ground involved in the event has some certain specific properties. More specifically, it is used when the Ground is a deep, narrow, closed place or object such as a well, lake, basket, bottle and the like. Below are the illustrative examples in (76):

- (76) a. İnça-s ko-dolo-xt-u.
 well.LOC Aff-SM-go-PST.3SG
 ‘S/he went down into the well.’
- b. Zuğa-s ko-del-u-qaph-u.
 sea.LOC Aff-SM-PRV-jump-PST.3SG
 ‘S/he jumped into the sea.’
- c. Çxombi khavanozi-s dolo-ren.
 fish.NOM bowl.LOC SM-is
 ‘The fish is in the bowl.’ (TRPS 32)

A further point that needs to be made regarding the properties of the aforementioned Grounds selected by the prefix *dolo-* is that they would rather be called vertically deep entities rather than being horizontal. We will see that this is an important specification for the use of this prefix on the basis of the fact that there is another prefix associated with entities that are horizontally deep and closed, namely *mola-*. This difference is illustrated in the examples below in (77), whereby the Ground is the stove and the tray is the Figure:

- (77) a. Xordza-k thepuri pilitha-s ko-mola-dg-u.
 woman.ERG tray.NOM stove.LOC Aff-SM-put-PST.3SG
 ‘The woman put the tray into the stove/oven.’
- b. Xordza-k dişk’a pilitha-s ko-dolo-dg-u.
 woman.ERG wood.NOM stove.LOC Aff-SM-put-PST.3SG
 ‘The woman put the wood into the stove.’

In the two sentences above, the difference in the choice of the prefixes follows from the properties of the Grounds associated with the two objects. Although it might look as if it were the case that the Grounds in the two sentences were the same, namely the stove, the two objects are associated with different parts of the stove. More specifically, while the tray is supposed to be placed into a specific part of the stove, that is, the oven part of the traditional stoves that Laz people usually use to cook bread, the wood is to be put into the part of the stove whereby the real burning event takes place. Following from the distinction with respect to the axial nature of these two Grounds, the two events are also assumed to take place in different manners. While the wood is to be put into the stove in a vertical manner, the tray should undergo a horizontal movement in order to end up being placed into the oven.

Following from the discussion above, it should also be noted that *dolo-* could also be argued to imply a downward movement as has been done in Öztürk and Pöchtrager (2011). And, similar to the case for *do-* discussed above, we believe that such an interpretation is a natural result of the properties of the Ground specified by *dolo-*. In other words, for an object to be placed into a vertically deep Ground, the object should undergo a downward movement as illustrated in the example below in (78):

(78) Qalati-s nçai ko-dolo-msqas-u.
 basket.LOC tea.NOM Aff-SM-stuff-PST.3SG
 ‘S/he stuffed the tea into the basket.’

3.2 Complex prefixes

One of the distinctive characteristics of the complex prefixes is that they could be decomposed into two separate prefixes combined in a certain order. The first component of these complex forms is one of the simplex prefixes discussed above in Section 3.1.1. After a detailed study of dictionary-search and data-elicitation sessions with our informant, we seem to have come to the conclusion that the prefixes that follow the simplex forms in complex prefixes denote information related to the different orientations/sides of the Ground referent. That is, if we assume that the Ground has a cubic shape, each of these prefixes will refer to the different sides of this cubic Ground.²⁶ Following Svenonius (2006), who introduces the syntactic category of Axial Parts that will be discussed thoroughly in Chapter 4, we will refer to these prefixes as *AxPart* prefixes (c.f. *AxialPart* Prefixes in the next chapter). This is illustrated in Figure 1:

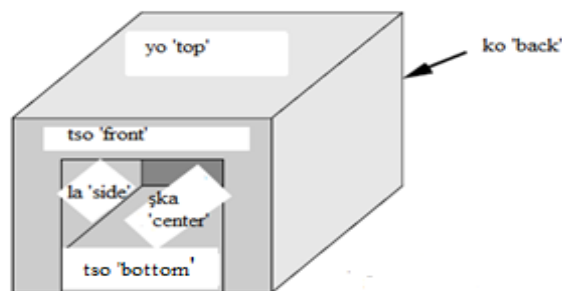


Figure 1. The Meanings of the Prefixes Occurring as the Second Component in Complex Prefixes

²⁶ The names of different sides of a cube could of course change depending on the perspective of the speaker or the observer. Here in this particular case, we take the reader's perspective as the basic one and give the names to the sides of the cube accordingly.

Among all these prefixes, the one whose meaning we are skeptical about is –*la*. As will be shown in Section 3.2.5, this prefix alone does not always force the event to be related to the near-side/s of the Ground referent. In spite of this, based on the existence of the prefixes whereby it leads to such an interpretation, i.e. *ela* and *cela-*, and also taking into consideration the fact that there are prefixes referring to the other sides of an object except for the near sides, we will suggest that –*la* might be associated with such kind of a meaning.

One important and general fact about these prefixes, which occupy the second slot in the complex forms, is that they can never be used in isolation with a verb. In other words, they should always occur in combination with one of the simplex forms. Furthermore, the order of these two components is also strict in the sense that the simplex forms should always precede these markers. These facts, to which we will refer back in the next chapter, are illustrated by the (un)grammaticality of the examples below in (79):

- (79) a. Ayşe xinci-şe *(mo)-yo-xt-u /*(me)-yo-xt-u.
 Ayşe.NOM bridge.ABL SM-go-PST.3SG / SM-go-PST.3SG
 ‘Ayşe crossed the bridge from there to here/from here to there.’
 b. Ayşe xinci-şe *yo-mo-xt-u / *yo-me-xt-u.

Before moving into the description of the meanings of the complex forms, it is also important to note again that it might not always be the case that the meaning of a complex form will be necessarily compositional, hence reflect the meaning of its components. As will be seen in the following sub-sections, some of these prefixes might be associated with idiosyncratic meanings that are quite different from the meanings of its parts. On the other hand, we will show cases whereby a single prefix might bear both of these two types of meanings, namely a compositional and an

idiosyncratic one. Although it is possible that such types of prefixes could be treated as homophonous forms, we are not going into such a discussion in the present chapter where our aim is to describe the meanings of the spatial prefixes.

In the following sub-sections, we will return to the meanings denoted by each one of the complex prefixes. Rather than dealing with each complex prefix individually, they have been grouped according to their second component, i.e. the AxPart prefixes, and the sub-sections below have been named accordingly. Such kind of a classification has been preferred considering the fact that the members of each sub-group seem to have more in common with respect to their meanings, which would make it easier to understand and follow the discussion for the reader.

3.2.1 *yo-* prefixes: *eyo-*, *goyo-*, *meyo-*, *moyo-*

The main meaning associated with the prefixes within this particular sub-group is that the event is related to the top part of an object or Ground. Since this is the case we will see examples whereby the meanings denoted by different *yo-* forms will be quite similar to one another. This is somewhat unexpected if we take into consideration the fact that these *yo-* forms differ from each other in terms of their first component, i.e. the simplex forms. Let us now start describing the meanings associated with each of these *yo-* forms one by one.

3.2.1.1 *eyo-*

eyo- is one of those prefixes which can reflect the meanings of its parts, hence might have a compositional meaning. It is composed of the simplex form *e-*, which indicates an upward movement, and the secondary prefix *yo-* implying that the event

is related to the top part of a Ground. The example in (80) illustrates this compositional meaning:

- (80) İsmaili-k ntsxeni-s e-yo-qaph-u.
 İsmail.ERG horse.LOC SM-jump-PST.3SG
 ‘İsmail jumped onto the horse.’

In this particular example, for the subject to sit on the horse, he first needs to make an upward movement to reach his final destination, which is the back of the horse. This is expressed by the simplex prefix *e-*. And, *yo-* seems to indicate that the place he ends up being at the end of this event of jumping is the top part of the Ground, which is a horse in this particular case.

It is not, however, always the case that *eyo-* conveys its compositional meaning mentioned above. In some certain cases, this prefix might simply indicate that the top part of an entity is involved in or affected by the event as illustrated in the examples below in (81):

- (81) a. Xordza-k çurçhi pilitha-s k-eyo-dg-u.²⁷
 woman.ERG cauldron.NOM stove.LOC Aff-SM-put-PST.3SG
 ‘The woman put the cauldron on(to) the stove.’
 b. Hemu-k karthali eyo-çird-u.
 s/he.ERG letter.NOM SM-tear-PST.3SG
 ‘S/he tore the top part of the letter.’

Here in the second example, with a verb like ‘to tear (something)’, *eyo-* seems to specify which particular part/side of the object gets affected by the event of tearing, as opposed to its compositional meaning discussed above. It, therefore, seems not to bear a directional meaning.

²⁷ We will refer back to this example in the next subsection which is about the prefix ‘goyo-’ and show that it is possible for our informant to get the similar interpretation even though we change the prefix *eyo-* with *goyo-*.

3.2.1.2 *goyo-*

This prefix also basically indicates that the top part of a Ground is involved in the event. In addition to this meaning, this prefix could also imply that the event, which starts from a higher surface, takes place downwards onto a lower surface. Below there is an example illustrating this use of *goyo-* in (82):

- (82) Omeri-k nca-şe tok'i go-yo-m-o-thoç-u.
Ömer.ERG tree.ABL rope.NOM SM-OBJ.1SG-PRV-throw-PST.3SG
'Ömer threw the rope to me²⁸ from the tree.'

In this example, since the initiator of the throwing event is located in a higher place, i.e. on the tree, the Figure, that is, the rope, undergoes a downward movement and ends up in a lower place than its starting point. This example is important in the following respect: In this particular meaning, this prefix seems not to bear a compositional meaning. This follows from the fact that the first component of this complex form, i.e. *go-*, does not seem to bear and contribute its canonical meaning in this prefix, as is the case for other complex prefixes involving it. One would expect to find the simplex form *ce-* as the first component of *goyo-*, rather than *go-*, considering the fact that both of these two forms imply a downward movement (besides other meanings that they contribute). Despite this, a form like **ceyo-* does not seem to be attested in PL. We believe that this might be a result of the meaning of the simplex form *ce-*. Recall that, besides implying a downward movement, this prefix also necessitates that the event needs to take place or end up on a specific surface, this specific place being the topside of a Ground or object in some certain cases, for which we provided examples above in Section 3.1.1.1. Below there is an example illustrating this in (83):

²⁸ This example also tells us that people are considered to be specific surfaces in PL. Therefore, it seems that we do not need to talk about a specific location or place in order to be able to use these prefixes.

(83) Bot'rik'a-pe masa-s c(e)-o-bğ-ur-an.
 Bottle-PL.NOM table.LOC SM-PRV-scatter-TS.IMPRF-PRS.3PL
 'The bottles are on the table.' (PS 17)

Therefore, the reason why *ce-* does not combine with *yo-* might be that both of these forms seem to express the same meaning, i.e. the top part of an object is involved in the event. Instead, the language might have mapped this kind of a meaning to another prefix, this prefix being *go-* in this particular case.²⁹

We should also note that there are cases whereby *goyo-* and *eyo-* could be used in similar contexts. This might result from the fact that both of these prefixes share the same second component in their morphological make-up, i.e. *yo-*. (84) is an example of such a case:

(84) Xordza-k çhurçi pilitha-s ko-goyo-dg-u / k-eyo-dg-u.
 woman.ERG cauldron.NOM stove.LOC Aff-SM-put-PST.3SG
 'The woman put the cauldron on(to) the stove.'

For this particular example, both *eyo-* and *goyo-* could be used to convey the same message according to our informant. We believe this might result from the fact that the focus is placed on the result/end point of the event of putting, leaving aside the process the Figure undergoes before reaching its final location. Despite this being the case, the two forms seem to diverge from each other in some certain uses. *goyo-* cannot replace *eyo-* in the example below, for example :

(85) Hemu-k karthali *goyo-çhird-u.
 s/he.ERG letter.NOM SM-tear-PST.3SG
 'S/he tore the top part of the letter.'

²⁹ It should be noted that one needs further evidence (historical, phonological etc.) to prove such a claim. We are in no position to provide this kind of evidence at this point. So we simply assume that *go-* bears the directional meaning in this complex form, i.e. downward movement, based on the fact that the second component, i.e. *yo-*, denotes that the event has some relation to the topside of a Ground or an object.

3.2.1.3 *meyo-*

There are two basic meanings associated with this prefix. The first one of these is a compositional one whereby the two components in this complex form reflect their canonical meaning. Recall that *me-* denotes an event moving away from the reference point of the speaker and *yo-* is used when the event has some relation to the upper/top side of a Ground. The combination of these two prefixes leads to an interpretation like the one illustrated in the example below in (86):

- (86) Balkizi oruba-şe ko-meyo-xt-u.
Balkız.NOM bridge.ABL Aff-SM-go-PST.3SG
'Balkız crossed the bridge (to the other side of the speaker).'

In this example, what is denoted by the prefix *meyo-* is that the action targets the opposite side to the speaker. Furthermore, for one to be able to pass to the other side of a river, that person needs to go over it, either by jumping over it or by going across a bridge, which is expressed through the use of the prefix *yo-*.

The other meaning that *meyo-* denotes is that the action or event is redone or repeated.³⁰ This is illustrated in the example below in (87):

- (87) Ayşe-k şe-pe meyo-nax-u.
Ayşe.ERG cloth-PL.NOM SM-wash.PSR.3SG
'Ayşe washed the clothes again.'

3.2.1.4 *moyo-*

As in the case of *meyo-* discussed above, *moyo-* could also bear a compositional meaning. On this compositional meaning, *moyo-* expresses the opposite meaning of

³⁰ Since our focus is on the spatial uses of the prefixes, we will not include the adverbial meanings of these prefixes into the discussion in this thesis. Although the nature of the verbs together which *meyo-* reflects this adverbial meaning is an interesting question, we will leave this to further studies.

meyo-, that is, the event starts from the other side of a Ground and is directed to the speaker's side. This is illustrated in the example below in (88):

- (88) Duygu xinci-şe mo-yo-xt-u.
 Duygu.NOM bridge-PL.NOM SM-go-PST.3SG
 'Duygu crossed the bridge (to the side of the speaker).'

On this interpretation, *moyo-*, and *meyo-* as well, differentiate from *eyo-* and *goyo-*. Although all of these forms share the same second component, i.e. *yo-*, in the first pair of these prefixes, the top part of a Ground, such as a bridge, is involved in the event just as an intermediary path whereas in the latter pair, i.e. *eyo-* and *goyo-*, it seems to specify the final point/place as can be seen in the examples below in (89):

- (89) a. Teona-k daçxuri-s moy-u-qaph-u/mey-u-qaph-u.
 Teona.ERG fire.LOC SM-PRV-jump-PST.3SG
 'Teona jumped over the fire.'
- b. Teona-k daçxuri-s ey-u-qaph-u/ goy-u-qaph-u.
 Teona.ERG fire.LOC SM-PRV-jump-PST.3SG
 'Teona jumped onto the fire.'

Lastly, *moyo-* could also be used in cases whereby the top part or side of an individual gets affected or targeted by the event expressed in the verb. On this use, *moyo-* patterns with *eyo-*, differing from *goyo-* and *meyo-*, which are not felicitous under this particular interpretation as illustrated in the relevant examples above in Section 3.2.1.2 and Section 3.2.1.3. This use of *moyo-* is exemplified below in the sentences in (90):

- (90) Tanura-k xorza-s (dudi) moy-u-ç-u.
 Tanure.ERG woman.DAT head.NOM SM-APPL-open-PST.3SG
 'Tanura opened the woman's head (by taking her scarf away for example).'

3.2.2 *şk'a-* prefixes: *ç'eşk'a-*, *eşk'a-*, *k'oşk'a-*, *meşk'a-*, *moşk'a-*

The prefixes in this sub-group mostly imply the existence of a collection of entities and the Figure is related to these entities in some ways, such as being located among or between them. In addition, some of these prefixes express a directional meaning and this seems to follow from the meaning of the simplex prefixes involved in these forms, that is, their first components. Lastly, we will also show that some of these prefixes might be associated with idiosyncratic meanings. Let us now start describing the meanings of these forms one by one.

3.2.2.1 *ç'eşk'a-*

The meaning expressed by this prefix is that the center of a surface or a Ground is at the target of an event or action. Therefore, if an object ends up being located at the center of something, *ç'eşk'a-* is used as can be seen in the examples below in (91):

- (91) a. *Dişk'a daçxuri-s ko-ç'eşk'a-vel-u.*
stick.NOM fire.LOC Aff-SM-fall-PST.3SG
'The stick fell in the center of the fire.'
- b. *Bere oda-s ç'eşk'a-dgit-u.*
child.NOM room.LOC SM-stand-PST.3SG
'The child stood at the center of the room.'

3.2.2.2 *eşk'a-*

Among all of the *şk'a-* forms, this prefix seems to be the one associated with various meanings, hence is the most productive one. The first one of these meanings is that the event takes place or targets the area in between two things. (92) is an example illustrating this meaning:

(92) Ar mşk'vela jur nca-s k-eşk'-i-nçan-u.
a sapling.NOM two tree.LCO Aff-PRV-emerge-PST.3SG
'A sapling emerged in between two trees.'

The use of this prefix is not only restricted to the existence of two entities. In other words, it can also be used when there are multiple entities and the event is related to the area between them. On this interpretation, it could be translated as 'among' as can be seen below in (93):

(93) Biçhepe-s eşk'a-xed-u.
boy-PL.LOC SM-sit-PST.3SG
'S/he sat among the boys.'

In addition to the locational meanings above, this prefix could also express a directional meaning. In this interpretation, it could be argued to have a compositional meaning on the basis of the fact that the two components in this prefix seem to express their canonical meanings. This is illustrated in the example below in (94):

(94) Oruba-şe kva eşk'-i-ğ-am-s.
river.ABL stone.NOM SM-PRV-bring-TS.IMPRF-3SG
'S/he is taking stones out of the river.'

In this example, *eşka-* seems to modify both the direction and the location of the Figure, i.e. the stone. The *şka-* part of the prefix implies that the stones that the person is taking out are assumed to be located among other stones or in sand, hence seems to tell us about the nature of the location of the stones before they are taken out. And the first component in the prefix, i.e. *e-*, on the other hand, suggests that the stones need to undergo an upward movement through the water in order to be taken out of the river. Another example whereby *eşk'a-* expresses a similar meaning is given below in (95):

(95) Germa-şe eşk'a-xt-u.
 mountain.ALL SM-go-PST.3SG

‘S/he climbed up the mountain.’

In this example, the use of *eşk'a-* seems rather odd in the vicinity of another prefix that could fit better to the situation depicted in the sentence. We will show below that *ela-* is used when someone moves diagonally upwards as one would do while climbing up a mountain. Therefore, we could also expect to find *ela-* in the sentence above. The use of *eşk'a-*, however, further specifies that one would need to follow a path surrounded by trees, bushes etc., and s/he needs to pass among them on the way up to the mountain. Hence the difference between these two prefixes seems to lie in the nature of the path followed. While *eşk'a-* implies that one needs to go through a path full of different objects, *ela-* does not have such an indication and simply suggests that the movement proceeds diagonally upwards.

In addition to the meanings discussed above, this prefix seems to have an idiosyncratic meaning that is worth mentioning. When the inside of an object undergoes and gets affected by the action denoted by the verb, such as washing the inside of an entity, *eşk'a-* is used as illustrated below in (96):

(96) Ayşe-k quqma eşk'a-çx-u.
 Ayşe.ERG churn.NOM SM-wash-PST.3SG

‘Ayşe washed the inside of the churn.’

What is interesting is that there is another prefix in PL expressing an inside-related meaning, namely *ama-*. However, *eşk'a-* cannot be replaced by this particular prefix to denote the meaning expressed in the sentence above. This seems to follow from the fact that *ama-* inherently denotes a directional meaning, hence cannot only refer to a specific part of the object entity as in this example.

3.2.2.3 *k'oška'a-*

This prefix has a similar meaning as the previous form we discussed above, namely *eška'a-*. It is basically used when there are a number of different objects or entities and the action targets or takes place among them as exemplified below in (97):

- (97) Puc-epe-s xoci ko-k'oška-v-i-yon-i.
 cow-PL.LOC ox.NOM Aff-SM-SUBJ.1SG-PRV-drag-PST.3SG
 'I dragged/ took the ox among the cows.'

3.2.2.4 *meška'a-*

The meaning that this prefix contributes is that there is a movement, which proceeds horizontally into a closed space. There are two other prefixes that also imply a closed space, namely *ama-* and *mola-*. *meška'a-* differs from them in terms of the nature of the place involved in the event. This prefix is used when the Ground is a narrow, cramped space, which is difficult to fit in, such as bushes. For that reason, this prefix is used when people talk about animals because animals normally live or hide in such places as illustrated in (98) below:

- (98) a. Mqyapu-k kotum-epe ğorma-muşi-şa
 coyote.ERG chicken-PL.NOM hole.POSS.3SG.ALL
 meška'a-tor-um-s do hek i-mxor-s.
 SM-drag-TS.IMPRF.3SG and there PRV-eat-IMPRF.3SG
 'The coyote took the chickens into his hole and ate them there.'
- b. Olili nca-s meška'a-xe-s.
 owl.NOM tree.LOC SM-stand-3SG
 'The owl is in the tree.'
- (TRPS 67)

Our informant has also indicated to us that if one is going into a place which s/he does not know very well, then *meşk'a-* is preferred over *ama-*, which is used for places where people would usually go in daily life such their houses. In the example below in (99), for instance, both of these two prefixes are acceptable but there is an interpretational difference between the two with respect to the nature of the cave. While *ama-* implies that it is a cave which people know very well, it is just the opposite case with *meşk'a-*:

- (99) Ğorma-şe ama-/meşk'a-xt-u.
cave.ALL SM-go-PST.3SG
'S/he went into the cave.'

3.2.2.5 *moşk'a-*

This prefix could be considered as the antonym of *meška-* because it just expresses movement out of a closed space that has the same properties discussed above for *meška-*. This seems to follow from the difference in the meanings of the simplex forms included in these two prefixes, namely *me-* and *mo-*. (100) is an example illustrating this interpretation:

- (100) Layç'i qalivi-şe moşk'a-tor-um-an.
dog.NOM hut.ABL SM-drag-TS.IMPRF-3PL
'They are dragging the dog out of its hut.'

One last thing to note regarding the meaning of this prefix is that the difference between *moşk'a-* and *gama-* 'out of a closed space' is similar to the one discussed above for *meşk'a-* and *ama-*. More precisely, while the former implies a familiar Ground whereas the latter does the opposite.

3.2.3 *ts'o-* prefixes: *ets'o-*, *k'ots'o-*

There are two basic complex prefixes in this sub-group of complex forms in PL.

What is interesting about these two forms is that neither of them seems to bear its compositional meaning. This might be due to the fact that the meanings associated with these forms are more locational or object-oriented rather than being directional. Therefore, what seems to determine the meaning of the whole form in these two prefixes appears to be the second component, which is the AxPart prefix *ts'o-*, rather than the simplex forms which basically express a directional meaning in other complex forms that have a compositional meaning.

3.2.3.1 *ets'o-*

This prefix adds the meaning of ‘under’ or ‘below’, hence is used when the event takes place below or is directed towards the area under a specific Ground. This is illustrated in the examples below in (101):

- (101) a. Efa onçhvalu şeni puci-s ets'o-xt-u.
 Fatma.NOM milk.INF for cow.LOC SM-go-PST.3SG
 ‘Fatma went under the cow in order to milk it.’
- b. Ayşe-k dişqa-pe otva-s ets'o-svar-u.
 Ayşe.ERG wood-PL.NOM roof.LOC SM-lay-PST.3SG
 ‘Ayşe laid the wood under the roof.’

It could also be used to indicate that an object is under something as exemplified below in (102):

- (102) T'op'i k'uli-s ets'o-dz-u-n.
 ball.NOM chair.LOC SM-lie-TS.IMPRF-3SG
 ‘The ball is under the chair.’ (TRPS 16)

3.2.3.2 *k'ots'o-*

There are two different meanings associated with this prefix. Firstly, it is used when the bottom or the lower parts of an object undergoes the event expressed in the verb.

As an example for this interpretation we can give the following example in (103):

- (103) Xordza-k şqatzale-muşı k'ots'o-çird-u.
 woman.ERG skirt-POSS.3SG.NOM SM-tear-PST.3SG
 'The woman tore/burnt the bottom/lower side of her skirt.'

In relation to this meaning, this prefix could also be used when an object is tied to the bottom of something, hence hanging under it as in (104):

- (104) Lamba çheri-s k'ots'o-b-u-n.
 lamp.NOM ceiling.LOC SM-hang-TS.IMPRF-3SG
 'The lamp is hanging from the bottom of the ceiling.' (TRPS 63)

The second meaning that this prefix brings in is that the action is related to the front part of an object or it takes place in front of something. (105) is an example depicting this meaning:

- (105) Tanura-k neqna-s k'ots'o-xed-u.
 Tanura-ERG door.LOC SM-sit-PST.3SG
 'Tanura sat in front of the door.'

Given that *k'ots'o-* could express these two meanings, we also find cases whereby both meanings are available; hence there is an ambiguity. This is illustrated in (106):

- (106) Mtuci-k pitsari k'ots'o-şk'om-u.
 mouse.ERG wood.NOM SM-eat-PST.3SG
 'The mouse ate the front/bottom of the wood.'

3.2.4 *k'o-* prefixes: *ç'ek'o-*, *ek'o-*, *mok'o-*

The main meaning associated with the prefixes in this sub-group of the complex forms is that the event is related to the back of something or it takes place behind a specific Ground. Some of these prefixes seem also to have acquired a temporal adverbial meaning in the sense that they describe an event happening after or following a previous event. This is also an expected phenomenon across languages due to the fact that space-related ad-positions³¹ are also associated with temporal relations in languages.

3.2.4.1 *ç'ek'o-*

This prefix has two different interpretations. The more salient meaning associated with this prefix is that the event takes place after another one, hence it seems to bear the temporal meaning of ‘after’ discussed above. (107) is an example illustrating this particular meaning of *ç'ek'o-*:³²

- | | |
|--|----------------------|
| (107) Phaphu-muşı-s | <i>ç'ek'o-ğur-u.</i> |
| grandfather-POSS.3SG-LOC | SM-die-PST.3SG |
| ‘S’he died after his/her grandfather.’ | |

In addition to this, this prefix is also used to indicate that the back part of something is involved in the event in some ways. However, as opposed to the other *k'o-* prefixes that might also bear a similar meaning, *ç'ek'o-* further specifies that the edge or tip of the backside of an object gets involved in the event. (108) illustrates this type of a meaning:

³¹ In Turkish as well, it seems to be the same case. That is, to express that an event that happens right after a previous one could use a temporal adverb derived from the postposition *arka/art* ‘back’, i.e. *arkasından* or *ardından* ‘later’.

³² Since our main focus is on the expression of spatial relations in this thesis, we will leave out the temporal interpretations associated with the spatial prefixes in PL from the discussion and leave them to further studies.

(108) Sumru-k televuzi sitoli-s ko-ç'ek'o-dg-u.
 Sumru.ERG television.NOM table.LOC Aff-SM-put-PST.3SG
 'Sumru put the television on the rear edge of the table.'

3.2.4.2 *ek'o-*

Like other *ko-* forms, this prefix could imply that the back of a Ground or something is involved in the event. In addition to this meaning, *ek'o-* is also used to indicate that something happens later. The examples in (109) demonstrate these two interpretations respectively:

(109) a. Bere-pe-k qoçi-s qalati k-ek'-u-qor-es.
 child-PL.ERG man.DAT basket.NOM Aff-SM-APPL-tie-PST.3PL
 'The children tied the basket to the back of the man.'

b. Oxorca-k lu-s alima ek'o-ç-am-s.
 woman.ERG collard.LOC butter.NOM SM-put-TS.IMPRF-3SG
 'The woman is adding the butter in the collards.'

The second example above needs a further explanation. In this particular example, the meaning that the prefix contributes is that the woman puts the butter after having put the collards in the pot; hence the interpretation of 'adding later' arises. Therefore, the literal meaning of the sentence is as follows: 'The woman is putting the butter into the pot later than/after the collards'.

In this example, *ek'o-* also seems to be used in a similar context to the prefix *dolo-*. Recall that *dolo-* is used when there is a deep, narrow Ground. A pot normally would qualify as such a Ground in PL. *ek'o-*, however, differs from *dolo-* with respect to this 'happening later' interpretation. To put more explicitly, if there is

already something in a pot and if we add something later into the already existing entity, *ek'o-* is preferred over *dolo-*, as illustrated in the examples below in (110):

(110) a. Xordza-k tencere-s tzqari ko-dolo-b-u.
 woman.ERG pot.LOC water.NOM Aff-SM-pour-PST.3SG
 ‘The woman put/poured water into the pot.

(entails that the pot was empty before)’

b. Xordza-k tencere-s tzqari k-ek'-u-b-u.
 woman.ERG pot.LOC water .NOM Aff-SM-pour-PST.3SG
 ‘The woman put/added some water into the pot.

(entails that there was already some water or another thing in the pot before)

3.2.4.3 *mok'o-*

The basic meaning that this prefix brings in is that the event targets the back part of something or has some relation to the area behind it. The examples below in (111) illustrate these two meanings:

(111) a. Omeri-k pontuli-muşi mok'o-çhird-u.
 Ömer.ERG trousers-POSS.3SG.NOM SM-tear-PST.3SG
 ‘Ömer tore the back part of his trousers.’

b. Ayşe-k çhuqani pilitha-s ko-mok'o-dg-u.
 Ayşe.ERG cauldron.NOM stove.LOC Aff-SM-put-PST.3SG
 ‘Ayşe put the cauldron behind the stove.’

c. Bere memsofa-s mok'o-xe-s.
 child.NOM armchair.LOC SM-stand-3SG
 ‘The child is behind the armchair.’ (TRPS 64)

As opposed to the other two *k'o-* forms, this prefix seems to lack a temporal meaning. Thus, when used with a verb like ‘to die’, it seems to modify the event in terms of location rather than tense. In this respect, *mok'o-* seems to differ from *ɕ'ek'o-* as illustrated below:

(112) Oxori-s mok'o-ğur-u.

house.LOC SM-die-PST.3SG

‘S/he died behind the house.’

3.2.5 *la-* prefixes: *ela-*, *cela-*, *gola-*, *mola-*

As also stated before, there is no common meaning associated with all the prefixes listed under this sub-group of the complex forms. This follows from the fact that the meaning added by their second component, i.e. *la-*, is not transparent. Even though this is the case, we will discuss them under Complex forms on the basis of the fact that the first components in these forms, i.e. the simplex prefixes, seem to contribute their canonical meanings in some certain cases.

3.2.5.1 *ela-*

There are different meanings expressed by this prefix. For that reason, it is productively used in the language. First of all, this form could modify the direction of an event. On this directional meaning, *ela-* indicates an upward movement, which is not vertical but diagonal, as can be seen in the example below in (113), whereby the goal of movement is the plateau:

(113) Ngola-şe el-u-l-u-n.

plateau.ALL SM-PRV-go-TS.IMPRF-3SG

‘S/he is going to the plateau.’

Here in this example, the use of the prefix *ela-* implies that for one to reach the plateau s/he needs to follow a path over a slope, hence proceed diagonally upwards.

In addition to this directional meaning, *ela-* could also be used to indicate that an event is related to the near side of something or it takes place there as in (114):

- (114) a. Araba-k layçi qoda-s k-el-i-çhinax-u.
 car.ERG dog.NOM wall.LOC Aff-SM-PRV-runover-PST.3SG
 ‘The car ran over the dog on the near side of the wall.’
- b. Nana-k puci axiri-s k-ela-qor-es.
 mother.ERG cow.NOM barn.LOC Aff-SM-tie-PST.3PL
 ‘The mother tied the cow to the near side of the barn.’
- c. Layçi bogi-s ela-ren.
 dog.NOM hut.LOC SM-is
 ‘The dog is near the hut.’ (TRPS 6)

Likewise, this prefix is used when an event or process affects one side or part of something. Under this interpretation, it refers to a part of an object as in (115):

- (115) Mandili el-i-kçand-u.
 handkerchief.NOM SM-PRV-whiten-PST.3SG
 ‘One part of the handkerchief got whitened.’
 ‘The near side of the handkerchief got whitened.’

Possibly as an extension of this meaning, *ela-* could also be associated with an adverbial meaning like ‘partially’ as seen in (116):

- (116) Mjora-k ela-tan-u.
 sun.ERG SM-shine-PST.3SG
 ‘The sun brightened/shined partially.’

3.2.5.2 *cela-*

This prefix could have both a directional and a locational meaning. On its directional meaning, it expresses just the opposite of the type of directionality expressed by *ela-*. Put more specifically, it denotes a downward movement, which proceeds diagonally, for example movement on a slope as illustrated in (117):

- (117) Ngola-şe cel-u-l-u-n.
plateau-ABL SM-PRV-go-TS.IMPRF-3SG
‘S/he is going down from the plateau (possibly to the village).’

In addition to this interpretation, *cela-* could also express that an object is located on the near side of something. On this interpretation, it is similar to the previous prefix discussed above, i.e. *ela-*. However, there is a difference between the two forms as follows: While *ela-* simply expresses that an object is located near another one, *cela-* is used when the Figure looks like hanging from the side of a higher surface such as a table or a tree, an interpretation which is related to the ‘downwards’ meaning associated with this form. This difference is demonstrated in the examples in (118):

- (118) a. Bere oxori-s ela-ren.
child.NOM house.LOC SM-is
‘The child is near the house.’
b. Toyçi masa-s cela-b-u-n.
rope.NOM table.LOC SM-hang-TS.IMPRF-3SG
‘The rope is hanging from the near side of the table.’ (PS 45)
c. Cek’eti xiti-s cela-b-u-n.
jacket.NOM hanger.LOC SM-hang-TS.IMPRF-3SG
‘The jacket is hanging on the hanger.’ (TRPS 9)

3.2.5.3 *gola-*

The main meaning associated with this prefix is horizontality. That is, when used with a verb that denotes some kind of motion, this prefix specifies the nature of the movement as horizontal, but not vertical as illustrated in (119):

- (119) Şana timele gola-xt-u.
Şana.NOM forward SM-go-PST.3SG
‘Şana went/moved forward (horizontally).’

What is worth mentioning regarding the directional meaning of this prefix is that it could be used when the Figure proceeds in any direction as long as it is horizontal. This probably follows from the semantics of the simplex form involved in this prefix, namely *go-*. Recall that one of the meanings that *go-* brings in is that the event could proceed in any direction.

In addition to the directional meaning above, *gola-* could also be used when there is an action that takes place or targets a horizontal surface. (120) is an example illustrating this:

- (120) Baba-k memsofa-s ko-gola-xed-u.
father.ERG armchair.LOC Aff-SM-sit-PST.3SG
‘The father sat on the armchair.’

Lastly, another meaning denoted by this prefix is that the event occurs along a horizontal line or horizontally. This is illustrated in the sentence below given in (121):

- (121) Ayşe-k şuqa gola-tas-um-s.
Ayşe.ERG cucumber seed.NOM SM-plant-TS.IMPRF-3PL
‘Ayşe planted the cucumber seeds along a horizontal line.’

3.2.5.4 *mola-*

This prefix does not seem to bear a compositional meaning. Rather, in most of its uses, it has an idiosyncratic meaning in the sense that the action is directed to or takes place in a closed space. In (122) there are examples illustrating these meanings:

(122) a. Xordza-k thepuri pilitha-s ko-mola-dg-u.
 woman.ERG tray.NOM stove.LOC Aff-SM-put-PST.3SG

‘The woman put the tray into the stove/oven.’

b. Dida oda-s ko-mola-ğur-in-es.
 old woman.NOM room.LOC Aff-SM-die-CAUS-PST.3PL

‘They killed the old woman in the room.’

Recall that PL has another prefix denoting a very similar meaning, namely *ama-*. Although we seem to have two different prefixes bearing a very similar meaning, they are used in different situations. While *ama-* requires that the event starts somewhere outside and is directed to the inside of a closed space. Since it takes into consideration the starting point of an event, it cannot be used when an event starts and takes place inside a closed space. For that reason, *mola-* cannot be replaced with *ama-* in the example (122b) as illustrated below in (123). Likewise, *ama-* cannot be used to indicate the location of an entity due to the fact that it is inherently associated with a directional meaning. For this, *mola-* is used instead as in (123)

(123) a. *Dida oda-s k-ama-ğur-in-es.
 old woman.NOM room.LOC Aff-SM-die-CAUS-PST.3PL

‘Intended meaning: They killed the old woman in the room.’

b. Layç’i bogi-s mola-xe-s.
 dog.NOM hut.LOC SM-stand-3SG

‘The dog is in the hut.’ (TRPS 71)

c. Mtsxvithura	mola-xe-s.
rabbit.NOM	SM-stand-3SG
‘The rabbit is in (the cage)’.	
	(TRPS 54)

3.3 Summary

In this chapter, we have introduced the spatial prefixes of PL, which are the center of this study. We have provided a description of the meanings contributed by each of these prefixes with illustrative examples. Doing so, we have divided them into different groups and sub-groups based on their morphological and semantic properties.

The first division was between the simplex and complex forms basically following from their morphological complexity. While the mono-morphemic forms have been referred to as simplex, the complex forms seem to be composed of two separate prefixes, i.e. a simplex form plus a prefix from the set of prefixes referring to different sides of an object. Although there have been cases in which the meaning of a complex form is not derived compositionally, for the purposes of the classification adopted in this Chapter, those markers have been discussed under complex forms. In such cases, these markers rather seem to have acquired an idiosyncratic meaning, hence could be considered as mono-morphemic.

The classification that we have adopted has basically been a variant of the one offered in Öztürkand Pöchtrager (2011). With the modifications the new sets of simplex and complex prefixes introduced in this chapter are as illustrated below in (124) and in Table 6:

(124) Simplex forms: *ce-*, *e-*, *go-*, *me-*, *mo-*, *ama-*, *gama-*, *do-*, *dolo-*

(125) Complex Forms: Please see Table 6.

Table 6. The New Set of Complex Forms Introduced in Chapter 3

AxPart Prefixes→		BACK/ BEHIND	SIDE/ NEAR	CENTER/ MIDDLE	FRONT& BOTTOM/ UNDER	TOP/ON
		-k'o/-xo	-la	-şk'a	-ts'o	-yo
Simplex Forms →	ce	ç'ek'o	cela	ç'eşk'a	-----	-----
	e	ek'o	ela	eşk'a	ets'o	eyo
	go	-----	gola	k'oşk'a	k'ots'o	goyo
	me	-----	mela	meşk'a	-----	meyo
	mo	mok'o	mola	moşk'a	-----	moyo

Having introduced the description of the prefixes, in the next chapter we turn our attention to the interaction of these markers with a certain set of verbs, namely motion verbs.

CHAPTER 4

THEORETICAL ANALYSIS AND DISCUSSION: MOTION VERBS AND SPATIAL PREFIXES

The aim of this chapter is to provide a syntactic analysis for the spatial prefixes introduced in the previous chapter. The interaction of a particular class of spatial prefixes in PL, which we refer to as dynamic prefixes, with the motion verbs is quite interesting because these prefixes exhibit selectivity about which particular motion verbs they combine with. In other words, it will be demonstrated that these prefixes can be used only with a certain set of motion verbs but crucially not with others. In order to account for this selectivity, we first study the syntactic structures of the spatial prefixes in line with Svenonius (2006). The motion verbs are then decomposed into three syntactic layers as Initiator, Process and Path following Ramchand (2008) and Son and Svenonius (2008). It is shown later that the possibility of using a dynamic prefix with a motion verb depends on whether a Path layer is licensed by the verb or not. Based on this observation, we come to the conclusion that the status of PL as a satellite framed language needs to be questioned as opposed to what has been claimed in Kutscher (2011).

This chapter is organized as follows: In the next subsection, we present the basic facts concerning the composition of the verbal complex in PL. Section 4.2 studies the syntactic structures of the prefixes in PL. In this section we classify the prefixes into three basic groups and provide the lexical specifications corresponding to each group. In the following section, i.e. Section 4.3, the interaction of the spatial prefixes with different types of motion verbs is studied. For this purpose, we firstly offer a classification system for the motion verbs in PL and then decompose the

verbs in each class (Section 4.4). In Section 4.5 it is argued that the dynamic prefixes in PL function as *specifiers* of the Path layer that is licensed by the verb, hence only describe the content of this layer rather than introducing it into the structure. In Section 4.6 the lexicalization of the syntactic structures discussed in the previous sections is studied under the Nano-syntactic framework (Starke, 2009). Lastly, Section 4.7, contra Kutscher (2011), questions the status of PL as a satellite-framed language based on the discussion primarily in Section 4.4 and 4.5. In this section, it is also suggested that the typology developed in Talmy (2000a,b) needs to be modified in order to incorporate languages like PL. The last section summarizes and concludes the discussion in this chapter.

4.1 Basic facts about the verbal complex in PL

The verb in PL has a quite complex composition consisting of a series of prefixes and suffixes associated with different kinds of information. Öztürk and Pöchtrager (2011) have identified 16 potential slots on the verbal complex in PL, all of which though are not realized at the same time. The first table below, which is Table 1 repeated as Table 7 here, illustrates the prefixal domain in the verbal complex of PL, i.e. the order of the prefixes together with the meanings/functions associated with each slot. The second table, i.e. Table 8 (Table 2 repeated as Table 8 here), on the other hand, focuses on the verbal suffixal domain and presents information regarding the suffixes that are realized on the verb in PL:

Table 7. The Verbal Prefixal System of PL (Table 1 repeated)

Slot Number	1	2	3	4	5
Function of Prefixes	Affirmative particles	Spatial Prefixes	Person Markers	Valency-Relevant Pre-root vowels	Root

Table 8. The Verbal Suffixal System of PL (Table 2 repeated)

Slot Number	6	7	8	9	10	11	12	13	14	15	16
Function of Suffixes	Aug	Causative			Thematic Suffixes	Imperf	Subj	Pers.	cond	PL	Auxiliary

Notice that the spatial prefixes in PL on which the main focus is put in this study occupies the second slot in the verbal complex, immediately following the affirmative particles. Among all these slots occupied by different affixes, two of them will be of more importance for the discussion in the present study. These are the (valency relevant) pre-root vowels that are found in slot 4 and the thematic suffixes, which highlight different aspects of event structure and occupy the slot 10. Since one of the main arguments in this thesis is that the spatial prefixes are sensitive to the morpho-syntactic and semantic nature of the verb they combine with, we will now turn our attention to the affixes that occupy the aforementioned slots, which we will use as morphological evidence indicative of the nature of the verbs that the spatial prefixes are (in)compatible with.

4.1.1 Pre-root vowels in PL

There are four pre-root vowels in PL, namely *i-*, *u-*, *a-*, *o-*. As also suggested by Öztürk and Pöchtrager (2011), these pre-root vowels basically seem to denote information related to the valency of the verbal predicate. That these pre-root vowels are valency-related is evidenced by the fact that they are used to mark the person information of the applied argument in an applicative construction as illustrated in the examples below in (126), all of which are taken from Öztürk and Pöchtrager (2011):

- (126) a. Ma pasta p-çv-i.
 I.ERG cake.NOM 1SG-bake-PST.1SG
 ‘I baked a cake.’
- b. Ma bere-s pasta v-u-çv-i.
 I.ERG child.DAT cake.NOM 1SG-APPL-bake-PST.1SG
 ‘I baked the child a cake.’
- c. Ma tkva pasta g-i-çv-i-t.
 I.ERG you.PL.DAT cake.NOM 2SG-APPL-bake-PST.1SG-PL
 ‘I baked you (pl.) a cake.’ (Öztürk & Pöchtrager, 2011, p. 52)

The example in (126a) demonstrates a simple transitive construction whereby a simple event of cooking cake is expressed. The examples in (126b) and (126c), on the other hand, illustrate applicative constructions derived by the applicativization³³ of the basic construction provided in the example (126a). Details aside, what is important at this point is that the valency increasing operation of applicativization is marked on the verb through the use of pre-root vowels. The choice of the pre-root vowel reflects the person information of the applied argument.³⁴ That is, if the applied argument is second (also first) person, the pre-root vowel is *i-* and *u-* if third person.³⁵

In addition to the applicativization case discussed above, the pre-root vowels also seem to mark verbs that are associated with different syntactic structures. Put more precisely, while *i-* and *u-* seem to occur with different types of intransitive

³³ For a detailed analysis of applicative constructions in PL, please see Öztürk (2013) and Demirok (2013).

³⁴ Applicativization is also marked on the applied object through the use of the dative case marker as illustrated in (126b,c).

³⁵ The remaining two pre-root vowels, i.e. {a-} and {o-}, will not be included in a detailed way in the discussion of the present study considering the fact that they do not occur with motion verbs which will be the main focus of the present study. To briefly state what these two markers indicate, it can be said that {a-} is the person-neutral applicative marker and {o-} is used when another argument increasing operation, namely causativization, is applied.

verbs. This contrast manifests itself best with intransitive motion verbs as illustrated in (127), whereby there is a manner and directed motion verb respectively:

- (127) a. Ali-k i-nçir-s.
 Ali.ERG PRV-swim-TS-IMPRF.3SG
 ‘Ali is swimming.’
- b. Ali (mektebi-şe) u-l-u-n.
 Ali.NOM school.ALL PRV-go-TS-IMPRF.3SG
 ‘Ali is going (to the school).’

In (127a) above where the verb is associated with an unergative structure like *swim*, the pre-root vowel is *i-* whereas *u-* is used with a verb like *go* which has been taken to be an unaccusative verb. In Section 4.3, whereby the motion verbs in PL will be discussed thoroughly, this generalization will be shown not to hold in all cases because the verb *run* in PL, which is traditionally supposed to pattern with unergative verbs, exhibits variable behavior with respect to the pre-root vowel it gets. Specifically, it will be shown that it patterns with the unaccusative verbs in taking the pre-root vowel *–u*, rather than *–i*. Based on the reasons that will become clear in the following sections, it might actually be the case that the pre-root vowel *u-* marks the existence of a goal for the motion event at hand, hence is obligatorily used with verbs that inherently denote directionality like *go*. It seems also possible to relate this function of *u-* to its function in applicative constructions as discussed above and it can be claimed that *u-* is used to mark verbs that inherently assume an implicit third party to which the motion event is directed.

It is important at this point to note that the spatial prefixes seem to be in interaction with the pre-root vowels in that they are compatible with motion verbs that take *u-* but crucially not with those that take *i-*. Leaving the details to the

relevant coming section, we will now turn in the upcoming section to the thematic suffixes of PL, which primarily reflect the event structural properties of the verbal roots that the spatial prefixes combine with.

4.1.2 Thematic suffixes in PL

The goal of this section is to introduce the thematic suffixes of PL that are used only in imperfective aspect situations, that is, mainly with verbs that are inflected for present tense. The thematic suffixes fulfill a number of different functions and encode various meanings regarding the nature of the verbs because they are indicative of the argument structure, thematic roles and lexical aspect of the verbs in PL. Since one of the arguments in this thesis is that the spatial prefixes show sensitivity to the sub-eventual properties of the verbal roots they co-occur with, the discussion of the thematic suffixes carries importance in following the discussion in this study. It should also be noted at this point that since the thematic suffixes in PL also indicate the thematic roles of the arguments of the verbs, the case system of PL, which reflects the thematic relations or roles of the arguments and is thus classified under the active case alignment system in the sense of Dixon (1994) by Demirok (2013), will also be presented along with the discussion regarding the thematic suffixes.³⁶

There are four main thematic suffixes in PL, namely *-am*, *-um*, *-u(r)* and *-e(r)*. As also stated above, the choice of the thematic suffix is basically determined based on the argument and event structural properties of the verbs (cf. Taylan & Öztürk, 2014; Öztürk & Taylan, in press). Since only two of the thematic suffixes mentioned above, i.e. *-am* and *-u(r)*, will be relevant for the discussion in this study,

³⁶ For a detailed analysis of the case system of PL, please see Öztürk (2008) and Demirok (2013).

we will basically focus on these thematic suffixes in detail and only briefly mention the others here, namely *-e(r)*, which forms intransitive impersonal structures in PL and *-um*, which is used transitive verbs whose objects are affected from the event denoted in the verb. Let us now start discussing the basic functions of the aforementioned two thematic suffixes one by one.

The first thematic suffix we will be concerned with is *-am*. This thematic suffix primarily appears on two different types of verbs, i.e. unergative³⁷ intransitive verbs and also on transitive verbs with unaffected objects. Unergatives that take this suffix are either agentive activities which cover unbounded atelic eventualities as can be seen in (128a,b), or non-agentive verbs of emission as in (128c) below:

- (128) a. Ali-k dits-am-s.
 Ali.ERG laugh-TS-IMPRF.3SG
 ‘Ali is laughing.’
- b. Ali-k i-nçir-(am)-s.
 Ali.ERG PRV-swim-TS-IMPRF.3SG
 ‘Ali is swimming.’
- c. Ayna-k farfal-am-s.
 mirror.ERG shine-TS-IMPRF.3SG
 ‘The mirror is shining.’

A noteworthy and crucial fact at this point is that manner of motion verbs, which also fall under agentive activity verbs, are also taken to be compatible with this thematic suffix even though it does not surface overtly at all times on these verbs as illustrated (128b), hence optional. This primarily follows from the fact that it is

³⁷ Öztürk and Taylan (2014) argue that there is no unergative-unaccusative split in PL since vP layer which introduces the initiator is even present with verbs that are traditionally considered unaccusatives in other languages. Following from this argument, they also argue that there is no transitive-intransitive split in PL and all verbs have a transitive argument structure.

this thematic suffix, but not the other ones, that our informant finds acceptable with this particular type of verbs. Furthermore, this thematic suffix appears on manner of motion verbs in other dialects of Laz.

The second thematic suffix that we are going to be concerned with is *-u(r)*.³⁸ This suffix is used with single argument verbs, which only take patientive nominative subjects, that is, with verbs whose structure surfaces with an unaccusative syntax. For that reason, the predicates that take *-u(r)* are typically achievements where the undergoer is assumed to have gone through some change of state or position as in the case of directed motion verbs as illustrated in the examples in (129) below, whereby the verbs are of the type whose subjects are understood to be the undergoer of the events denoted by the verbs. These examples are also taken from Öztürk and Pöchtrager (2011, p. 91):

- (129) a. Ali ğur-u-n.
 Ali.NOM die-TS-IMPRF.3SG
 ‘Ali is dying.’ (Achievement)
- b. Tsari nçx-u-n.
 water.NOM cool-TS-IMPRF.3SG
 ‘The water is cooling.’ (Degree Achievement)
- c. Ali m-u-l-u-n.
 Ali.NOM HITHER-PRV-go-TS-IMPRF.3SG
 ‘Ali is coming.’ (Verb of directed motion)

³⁸ It should be noted that the reason why this thematic suffix is represented as *-u(r)* stems from the fact that only in third person, but not with others, the *-r* gets deleted, probably due to the fact that only in third person this suffix is followed by the agreement marker *-n* since the first and second person agreement markers are zero in present tense. This is illustrated in the examples below:

- (i) a. Ma mo-v-u-l-ur- Ø.
 I.NOM HITHER-1SG-PRV-go-TS-IMPRF.1SG
 ‘I am coming.’
 b. Hemu m-u-l-u-n.
 s/he.NOM HITHER-PRV-go-TS-IMPRF.3SG
 ‘S/he is coming.’

Also noteworthy is the fact that the third person agreement marker that occurs with $-u(r)$ happens to be the same as the clitic form of the copula for the third person, namely $-n$, as illustrated in the example below in (130):

(130) Elena mskva ren. / mskva-n.

Elena.NOM beautiful is/ beautiful-is

‘Elena is beautiful.’

Having introduced the thematic suffixes of PL, which is summarized in Table 9, taken from Öztürk and Taylan (2014)³⁹, we will now turn our attention to the spatial prefixes. We will make reference to the facts presented in this section in the following sections whereby the main focus is going to be on the spatial prefixes and their interaction with different types of verbal roots.

Table 9. Morphological, Syntactic and Semantic Correlates of Thematic Suffixes

TS	Arg. Str.	Macro Roles	Case	Valency	3ps. Agr.	Lexical Aspect
-am	Unergative	Initiator	Erg	i-/ \emptyset	-s	Activity
-u(r)	Unaccusative	Undergoer	Nom	\emptyset	-n	Achievement

The following section will be devoted to the finer-grained internal structure of the category P, which we will also take the spatial prefixes belong to, in following Asbury, Gehrke & Hegedus (2007). In that section, we will firstly classify the spatial prefixes and then provide the syntactic structures associated with each prefix class by following the layered PP structure proposed in Svenonius (2006), on which we are going to elaborate in Section 4.2.1.

³⁹ The thematic suffixes that we will not be concerned with, namely $-e(r)$ and $-um$, are omitted from the list in the table given here.

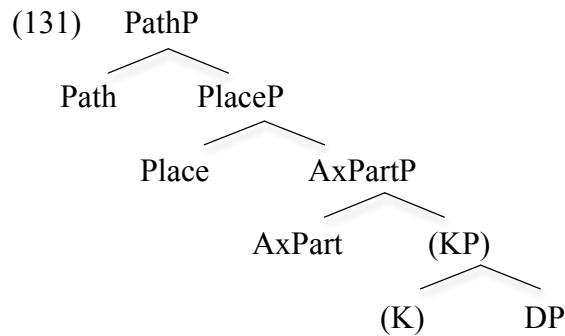
4.2 Internal structure of the prefixes: Decomposition of P

The aim of this section is to present the finer-grained syntactic structure that has thus far been proposed in the literature for the category P, P being either preposition or postposition. It is of crucial importance to note at this point that in the analysis that will be developed in this study, we will take the spatial prefixes to be of the category P. In doing so, we follow Asbury et al. (2007) who convincingly argue based on syntactic, semantic and phonological similarities between adpositions and other adposition-like elements like particles and prefixes or suffixes, that prefixes could also be analyzed in parallel to adpositions. Such a treatment of prefixes has also been proposed for various other languages in many other studies aiming at uniting the aforementioned categories under one single category, namely P (den Dikken, 1995; Zeller, 2001; Gehrke, 2008 among others). Following these studies, we will also assume that the category P extends beyond adpositions and includes affixal elements like prefixes expressing spatial relations. Having established which category the spatial prefixes belong to, we can now proceed to discuss the internal syntactic structure of the PPs in PL that will be adopted in the present study, understanding of which is crucial for the arguments that will be developed in the following sections.

Recall from Chapter 3 that PL has a quite large spatial prefixal inventory consisting of a number of verbal prefixes. Since some of these prefixes are heavily loaded with complex spatial information whereas others are simply associated with one particular meaning, it seems necessary to go for a more detailed syntactic structure that could account for in a principled manner all of the spatial prefixes introduced in the previous chapter. For this purpose, we will basically adopt the finer-grained structure developed in Svenonius (2006), which we will discuss in detail in the following section.

4.2.1 Svenonius (2006)

Svenonius (2006) proposes the following structure in (131) for PPs:



This structure primarily relies on the general assumption in literature (van Riemsdijk, 1990; Koopman, 2000; Gerhke, 2008 among others) that PPs are internally complex with at least two projections that are hierarchically ordered, namely Path and Place. These two projections have been respectively proposed to account for the directional and locative meanings and there seems to be a general consensus in recent studies concerned with the structure of PPs on the idea that the PathP embeds the PlaceP (van Riemsdijk, 1990; Koopman, 2000; Gerhke, 2008 among others). This idea primarily follows from the fact that crosslinguistically the directional elements have been observed to be built via the addition of the directional elements on top of the locational elements. Pantcheva (2011) provides empirical evidence from a number of different languages like Macedonian and Tsez illustrating this aforementioned generalization. For the purposes of this study, we will simply cite the examples below in (132) from Svenonius (2010) to illustrate how the minimal structure mentioned above is realized in English:

- (132) a. The car remained/was painted in front of the palace.
b. The ball drifted from in front of the palace.

The example in (132a) above is intended to show that the preposition *in* in English is a locative preposition since it can function as the complement of stative

verbs expressing location like *remain* or a locative adjunct of verbs that do not imply any motion like *be painted*. After showing this, Svenonius (2010) proceeds to argue that this locative preposition can function as the complement of *from* which denotes a directional meaning as illustrated in (132b) above.

Having established the first two projections in the structure based on this general assumption, Svenonius (2006) then proceeds to discuss the need for the introduction of a new projection within the layered structure of PPs. He refers to this new projection as AxPartP, an abbreviation for Axial Part, which he assumes to be embedded under the PlaceP projection in the structure that he proposes for PPs. Let us now briefly discuss what type of elements are to be considered AxParts since we will need to make reference to this projection and argue that a subset of the spatial prefixes in PL is the spell-out of this syntactic projection.

AxPart as a term refers to a distinct group of elements, namely spatial or locative nouns, which exhibit both N-like and P-like properties. More explicitly, among the typical examples of AxParts are *front*, *back*, *top*, *bottom*, *sides* and the like. What is special about these types of elements is that they could refer either to certain part of an object; hence function as relational nouns denoting a part-whole relationship, or to a space defined with reference to an object, i.e. function as a locative expression. These two uses of AxParts are illustrated in the examples below in (133) taken from Svenonius (2006):

- (133) a. There was a kangaroo in the front of the car.
b. There was a kangaroo in front of the car.

In (133a), the kangaroo is most naturally understood to be in the two front seats of a typical car, which would be an example of the relational noun use of *front*. Notice that, under this interpretation, *front* is preceded by the definite article *the*.

When the definite article is missing as in the case of (133b), the sentence is interpreted quite differently from the previous case in (133a). Under this interpretation whereby *front* has its locative use, the kangaroo is understood to be located in a space projected forward from the car. The difference between these two particular uses of *front* reveals itself also when the preposition is one other than *in*, such as *on*. Notice that *on* is acceptable only in the former use of the word *front* is at play but crucially not in the latter case as illustrated in (134):

- (134) a. There was a kangaroo on the front of the car.
 b. *There was a kangaroo on front of the car.

Based on the contrast illustrated in the above examples and crosslinguistic evidence from languages like Korean, Persian, Tzeltal, Kham and Finnish, Svenonius comes to the conclusion that AxPart as a separate syntactic category needs to be posited within the layered structure of PPs in languages. Similar analyses that argue for positing a separate projection for these items have also been made before (Seiki, 2001) but with a different name, i.e. [N,L]P, standing for Locative Nouns based on evidence from Japanese and Sranan. Leaving the details that will be relevant for the discussion in PL to the following sections, we will now move on to discussing how Svenonius's layered PP structure could be applied to the spatial prefixes of PL.

4.2.2 The syntactic representation of the spatial prefixes of PL

The aim of this section is to provide the syntactic structures associated with the spatial prefixes of PL in line with the layered structure proposed by Svenonius (2006). For this purpose, we will also go for a further classification for the prefixes based on their syntactic and semantic properties. Specifically we will divide the prefixes into the following subgroups: Dynamic prefixes, Ambiguous prefixes and

AxialPart Prefixes. After establishing the syntactic structures of these classes of prefixes in this section, in Section 4.3, we will move on to discussing the interaction of different types of prefixes with different classes of motion verbs.

4.2.2.1 Dynamic prefixes

The main property of the prefixes in this group is to inherently express some kind of directionality. A noteworthy fact is that these prefixes could involve some locational sense in their semantics in addition to their directional meaning, though not necessarily at all cases. To differentiate between the prefixes of these two sorts, we will use the following two terms: *Path-only prefixes* and *Complex prefixes*. A crucial note to be made at this point is that by the term *complex*, we here intend syntactic complexity, i.e. a prefix being associated with a syntactic structure bigger than just PathP. This carries importance in order not to make the wrong assumption that all of the prefixes that are discussed under *Complex prefixes* in Chapter 3 would fall into this category. Recall that the term *complex* in the previous chapter was simply used for ease of description and reference. Moreover, in spite of the fact that some of these Complex prefixes could be analyzed compositionally, hence morphologically complex, this was not the case for all of the prefixes discussed under this category. Making this clarification, we can now go back to the discussion of dynamic prefixes of PL.

As stated above, the prefixes that will be classified as dynamic prefixes are the ones that obligatorily give rise to non-stative, i.e. directional, interpretations. In order to understand which prefixes of PL are associated with this property, we are going to use the diagnostic of being incompatible with simple stative predications. This test has often been used in the literature to make distinctions among

prepositions and other P-like elements in various languages (Folli & Ramchand, 2005; Son, 2009; Svenonius, 2010 among others). The use of this diagnostic is illustrated in the examples below in (135):

(135) a. *John is to the store.

b. *Mary put the book to the table. (English)

c. Inho-ka hakkyo-ey nam-a iss-ta.

Inho.NOM school.LOC remain-LINKER be-DC

‘Inho is at school.’ (Korean)

(Son 2009, p. 218)

d. Gianne e a casa di Maria.

John is LOC house of Mary

‘John is at Mary’s house.’ (Italian; Son 2009, p. 219)

The above examples inform us about the fact that when a preposition (English or Italian cases) or a spatial case marker as in the Korean case is not compatible with stative verbs like *be* (also *remain*, *stay* and so on) or a punctual transition verb like *put*, those items are taken to be inherently associated with a dynamic interpretation. Based on this assumption, it has been concluded that the preposition *to* in English is an inherently dynamic preposition, which does not seem to be the case for the locative case marker of Korean and also the preposition *a* in Italian. An important point that needs to be articulated regarding this particular diagnostic is that this test seems to work only in one direction, that is, only if a P-like element is not felicitous with a stative verb, that element should be understood to be dynamic in force. The other way around, i.e. being acceptable with this type of verbs, on the other hand, does not necessarily make the P-like element a non-dynamic or

locational item. These facts are illustrated in the English examples below in (136), which are taken from Folli and Ramchand (2005):

(136) a. The boat floated under the bridge.

b. The boat was under the bridge.

These authors suggest that the sentence in (136a) above might be associated with a Goal of Motion interpretation, in which case the boat is interpreted to move towards the area under the bridge, as well as a stative meaning whereby it is understood to float in the area projected downwards from the bridge. Since both a directional and a locational meaning are available with a preposition like *under*, the authors come to the conclusion that *under* is an ambiguous preposition. This example also is informing for our purposes about the fact that although a preposition like *under* is compatible with a stative verb like *be* as in (136b), it might still bear a directional meaning.

Keeping the details of this diagnostic in mind, let us now apply it to the PL data with the purpose of identifying the inherently dynamic prefixes of PL. The application of the test gives us the prefixes listed below in (137) as the dynamic prefixes of PL, which are exemplified in (138):

(137) Dynamic prefixes of PL: *ama-*, *gama-*, *meşk'a*, *moşk'a-*, *meyo-*, *moyo-*, *e-*, *me-*, *mo-*, *ela-*, *cela-*, *go-*, *gola-*

(138) a. Xordza oxori-s *{ama-/gama-/meşk'a-/moşk'a-}-{ren/squd-u}.

woman.NOM house.LOC SP-is/remain.PST.3SG

‘Intended meaning: The woman is/remained in(side)/out(side) the house.’

b. Xordza xinci-s *{meyo-/moyo-}-ren.

woman.NOM bridge.LOC SP-is

‘Intended meaning: The woman is over the bridge.’

- c. Ayşe-k topi e-thoç-u. *Topi e-ren.
 Ayşe.ERG ball.NOM SP-throw-PST.3SG ball.NOM SP-is
 ‘Intended meaning: Ayşe threw the ball up. The ball is up (in the air).’
- d. Ayşe *{me-/mo-}-ren.⁴⁰
- e. Ayşe *{ela-/cela-/go-/ gola-}-ren.

An additional note needs to be made on the examples in (138e). These prefixes have been shown in the previous chapter to be ambiguous between locational and directional meanings. Since the meanings associated with these prefixes seem, however, to be unrelated, we will assume that these forms are homophonous, that is, there are two separate lexical items, one bearing the directional and the other the locational meaning. The forms under consideration in (138e) are thus the ones bearing the relevant directional meanings.

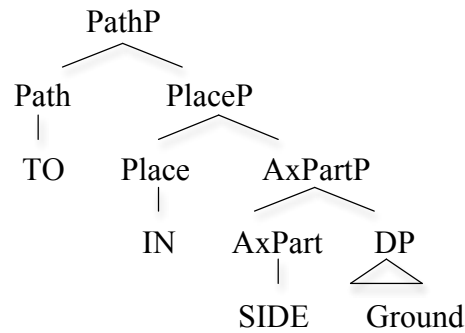
Based on the facts presented above, we can conclude that the prefixes listed in (137) are inherently dynamic. For that reason, we will argue that the Path projection is always present in their syntactic structure. These forms, however, seem to differ from one another with respect to their exact internal structure, that is, although they all are associated with a Path projection, only a certain group of them seem to have a more complex structure. For this reason, we will go for a further division within the members of the dynamic prefixes. Specifically we will suggest that these prefixes could be divided into two further groups according to whether there is an AxPartP projection in their syntactic representation. We will refer to those with an AxPart projection as *Complex prefixes* and those that do not have this projection as *Path-only prefixes* for the reasons that will be made clear below. We will then provide the syntactic structures of both of these classes of prefixes.

⁴⁰ Our informants have assured us that these combinations sound fairly ungrammatical to them under the relevant interpretations.

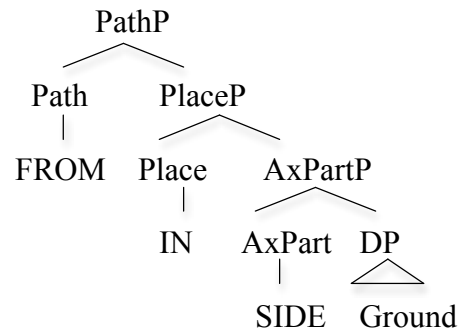
Recall from the previous chapter that there are four prefixes in PL that denote a horizontal movement into (i.e. *ama-*, *meşk'a-*) or out of (i.e. *gama-*, *moşk'a-*) a closed space. The first member in each pair differs, however, from the other one in terms of the nature of the Ground involved in the event. Details aside, we can conclude from this discussion that these pairs of prefixes express that the inside part of the Ground object is involved in the event. For that reason, we will assume that an AxPart projection is present in the syntactic structure of these prefixes. In the case of *meşk'a-* and *moşk'a-*, it seems that we can also see the overt realization of this projection since these two prefixes could be compositionally analyzed.⁴¹ Likewise, *meyo-* and *moyo-*, which also consist of two identifiable separate components, i.e. *me-/mo-* and *yo-*, could be treated in a similar fashion, the only difference being the AxPart projection being realized as *-yo*, i.e. top. The syntactic representations of these prefixes are as in (139) and (140):⁴²

(139) The syntactic representation of *ama-* and *gama-*

a. *ama-*



b. *gama-*



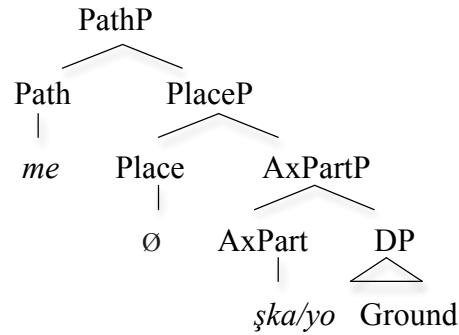
⁴¹ It should be noted at this point that all of the prefixes that bear a compositional meaning, i.e. composed of the combination of two separate prefixes, should fall into the class of Complex prefixes due to the fact that they reflect their complexity morphologically. This is relevant for two specific prefixes, namely *eyo-* and *goyo-*, both of which could be associated with a compositional meaning, though not necessarily as also stated in Chapter 3. For that reason, these two prefixes could also be added to the list of Complex prefixes above.

Also, the reason as to why they have not been taken homophonous forms as in (138e) above, on the other hand, is that their second component is *yo-* whereas it is *la-* in the forms under (138e). Recall from the previous chapter that the meaning associated with the latter, i.e. side, is less transparent as opposed to that of *yo-*, i.e. top.

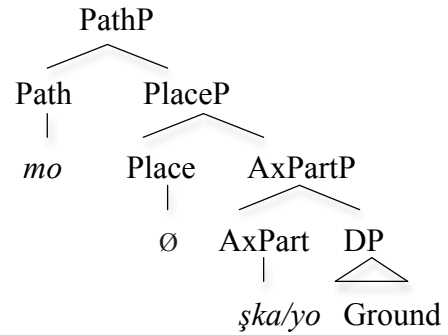
⁴² The bar levels are omitted for ease of representation.

(140) The syntactic representation of *meşk'a-* and *moşk'a-*⁴³

a. *meşk'a-/meyo-*



b. *moşk'a-/moyo-*



The representations above illustrate the fact that these prefixes are syntactically complex since they are associated with a **PlaceP** and an **AxPartP** in addition to a **PathP** projection. Based on this, we will refer to these prefixes as Complex prefixes in following Higginbotham (1995, 2000) and Folli and Ramchand (2005) who also suggest that prepositions associated with a structure of the sort described above are subeventually and syntactically complex.

An important point about the representations given above is that *ama-* and *gama-*, which are also discussed under simplex forms in the previous chapter, cannot be further decomposed into its component parts as in the case of the prefixes in (140) above. Therefore, they differ from the latter four in being morphologically simple,

⁴³ It is of crucial importance to note at this point that the structure proposed by Svenonius (2006) seems also to account for the facts related to the composition of the morphologically complex forms mentioned in the previous chapter. Study the examples below taken from there:

- (i) a. Ayşe xinci-şe *(mo)-yo-xt-u.
 Ayşe.NOM bridge.ABL hither-TOP-go-PST.3SG/
 'Ayşe crossed the bridge from there to here/from here to there.'
 b. Ayşe xinci-şe *yo-mo-xt-u.

These examples illustrate the following two important facts: When a prefix is composed of two components, i.e. morphologically complex and semantically compositional, 1) the **AxPart**-related prefixes, i.e. the second component, cannot occur either in isolation with the verb head or in a position preceding the **Path**-related component, suggesting that there is a strict ordering between the two. These two facts seem to follow from the locality constraints on head movement and the Minimal Link Condition. More precisely, since the prefixes that spell out the **Path** and **AxPart** head are morphologically dependent forms, they need to incorporate into the verbal head by undergoing head movement. Due to MLC, however, for the **AxPart** head to incorporate into V, it needs to move through the intervening two head positions, namely **Place** and **Path**, giving us the correct ordering facts discussed above.

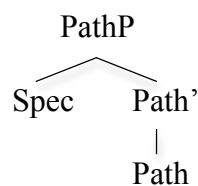
i.e. monomorphemic. Despite the fact that these two prefixes do not actually show their complexity morphologically like the others, they will still be considered Complex prefixes in analogy with the monomorphemic preposition *to*⁴⁴ in English which has been taken to be a complex preposition by the aforementioned authors although it does not reflect it morphologically like *into*, which could be decomposed into two parts. Based on the discussion thus far, we list the Complex prefixes of PL in (141):

(141) Complex Prefixes of PL: *ama-*, *gama-*, *meşk'a-*, *moşk'a-*, *meyo-*, *moyo-*

As for the remaining dynamic prefixes listed in (137) above, it seems to be the case that they are not associated with an AxPart-related meaning as opposed to the case in Complex prefixes. Recall also that they do not express a locational relation between the Ground and the Figure item as discussed in the previous chapter. Based on these facts and also the fact that they are not compatible with stative verbs, we will argue that their syntactic structure consists only of a Path projection corresponding to their directional meanings. Therefore, we will refer to these prefixes, which we list below, as Path-only prefixes. Notice also that they all could be treated as monomorphemic under the relevant directional interpretations. In (143) below, we provide the syntactic structure common to all of the prefixes listed in (142):

(142) Path-only prefixes of PL: *e-*, *me-*, *mo-*, *ela-*, *cela-*, *go-*, *gola-*

(143) Syntactic structure of Path-only prefixes



⁴⁴ These authors associate the preposition *to* with the following structure [Path[Place[DP]]] and in the case of *into*, they assume that the only difference is that the Place head, i.e. *in*, undergoes incorporation into the Path head.

Having established the syntactic representations of the dynamic prefixes of PL, we can now move on to the discussion related to the remaining prefixes of PL. In doing so, we will also make further divisions within these groups of prefixes and discuss them under the following two major categories: *Ambiguous prefixes* and *AxialPart Prefixes*. The common property of these prefixes is to be felicitously used with stative verbs as opposed to the case in the dynamic prefixes discussed above. Based on this fact, it could be argued that they are associated with a Place projection in their syntactic structure. As we will show later, however, they differ from one another with respect to the exact nature of their syntactic structure. Below we turn to the discussion of Ambiguous prefixes and the following subsection will be devoted to the AxialPart Prefixes.

4.2.2.2 Ambiguous prefixes

There are two particular prefixes that will be discussed in this section, namely *ce-*, and *dolo-*. These prefixes primarily differ from the dynamic prefixes in being compatible with verbs denoting a stative meaning as demonstrated in (144):

(144)a. Oşkuri tabaxi-s ce-{ren/squd-u}.

apple.NOM plate.LOC SP-is/remain.PST.3SG

‘The apple is/remained on the plate.’

b. Çxombi khavanozi-s dolo-{ren/squd-u}.

fish.NOM fishbowl.LOC SP-is/remain.PST.3SG

‘The fish is/remained in the fishbowl.’

These prefixes, however, are noted in the previous chapter to be associated with a directional meaning in addition to the stative meanings illustrated above. It

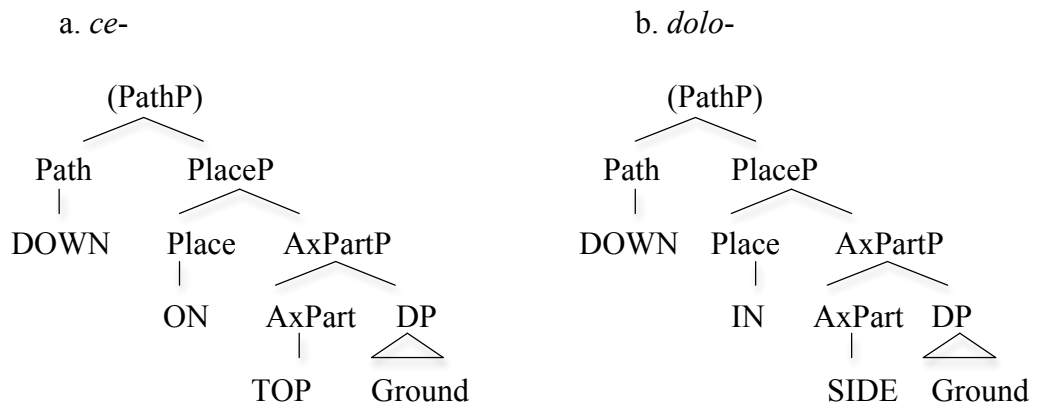
should be noted that they both might denote a downward movement as illustrated in the examples below in (145), whereby the Figure is understood to go down:

- (145) a. Koçi nca-şe c-u-l-u-n.
 man.NOM tree.ABL SP-PRV-go-TS-IMPRF.3SG
 ‘The man is going down from the tree.’
- b. Koçi inçha-şe dol-u-l-u-n.
 man.NOM well.ALL SP-PRV-go-TS-IMPRF.3SG
 ‘The man is going down into the well.’

It might seem at first sight surprising for these direction-denoting prefixes to be compatible with stative verbs. Recall, however, that the diagnostic used for identifying the dynamic prefixes or adpositions works only in a unidirectional way, that is, the fact that a P-like element is compatible with a stative verb does not necessarily make it non-dynamic. This has been discussed in relation to the preposition *under* in (136), which has been considered a preposition ambiguous between a dynamic and a locative meaning (Folli & Ramchand, 2005). We also argue that the prefixes in (146) are ambiguous prefixes that might optionally project a PathP projection. Their syntactic representations in are given in (147):

(146) Ambiguous Prefixes of PL: *ce-*, *dolo-*

(147) The syntactic representation of *ce-* and *dolo-*



It should be noted that both of these prefixes are monomorphemic, i.e. cannot be further decomposed into smaller parts. In this respect, they look alike two particular Complex prefixes, i.e. *ama-* and *gama-*. They, however, differ from the latter in one crucial respect, i.e. the PathP layer is only optionally present in their structure, hence their ambiguous nature.

Having established the syntactic representations of the ambiguous prefixes, we can now move on to the discussion of the last type of the prefixes in PL which we will be concerned with, i.e. AxialPart prefixes.

4.2.2.3 AxialPart prefixes

The prefixes to be discussed in this section share with the Ambiguous prefixes the property of being felicitous with stative verbs. They, however, differ from them in being not associated with a directional meaning, hence non-dynamic. It should also be noted that the Ground entity is marked with the locative case with these prefixes, rather than allative, which also seems suggestive of their non-dynamic nature.

A crucial thing to note at this point is that the prefixes that will be discussed in this section should not be confused with the *AxPart prefixes*, the term which we have used in the previous chapter to refer to the second component of morphologically complex prefixes, namely *la-*, *yo-*, *ʃk'a-*, *k'o-* and *ts'o-*. To avoid this kind of confusion, we have chosen to refer to the prefixes to be discussed in this section as AxialPart prefixes (c.f. AxPart prefixes). Keeping this distinction in mind, let us now proceed to discuss the properties of the AxialPart prefixes in PL.

As also stated in the beginning of this chapter, one of the distinguishing properties of the AxialPart prefixes is to be compatible with stative verbs. Below in Table 10 we provide the list of the AxialPart prefixes with the meanings associated

with them and an illustrative example⁴⁵ in (148) showing their compatibility with stative verbs and also punctual transition verbs like *put*:

Table 10. AxialPart Prefixes of PL⁴⁶

eyo-/goyo-	‘on top of’	k’oşk’a-/ e’şk’a-	‘(in) between two or more things’
ç’eşk’a-	‘at the center of’	mok’o-/ek’o-	‘in back of’
ela-	‘near, beside’	ets’o-	‘under/below’
kots’o-	‘at the bottom of’/ ‘in front of’	ç’ek’o	‘at the tip side in the back of’
mola-	‘inside’	go-	‘around’

(148) a. K’avanozi oxori-s mok’o-{ren/squdu}.

bottle.NOM house.LOC SP-is/remain.PST.3SG

‘The bottle is/remained behind the house.’

b. Hemu-k k’avanozi memsofa-s mok’o-dg-u.

s/he.ERG bottle.NOM armchair.LOC SP-put-PST.3SG

‘S/he put the bottle behind the armchair.’

It should be noted at this point that we assume that the AxialPart prefixes are monomorphemic although they might look morphologically complex. This primarily follows from the fact that, as opposed to the case in Complex prefixes discussed in Section 4.2.2.1, these prefixes are not associated with a directional meaning, which is

⁴⁵ It should be noted that these examples are acceptable with all of the AxialPart prefixes given in the table above under the interpretations associated with them. For reasons of space, we have chosen to illustrate these facts only in one example.

⁴⁶ The prefix *do-*, which denotes that the event is related to the ground (in its canonical sense), might belong to belong to this group. It, however, differs from the prefixes in this group in that the Ground is not expressed overtly, hence always implicit. In cases where the event takes place on the solid surface of the world, it could be argued that the event covers the area projected from the ground.

denoted by the first component in the Complex forms. Notice that there are three pairs of prefixes, namely *eyo-/goyo-* ‘on top of’, *mok’o-/ek’o-* ‘in back of’ and *k’ošk’a-/ešk’a-* ‘in between two or more things’, which denote the same meaning although they differ in their seeming first component.

Another noteworthy fact about the above forms is that they belong to the separate syntactic category of Axial Parts as has been defined by Svenonius (2006). Recall from the discussion above that Svenonius argues that Axial Parts are elements that refer to an area projected from a reference object, namely the DP Ground. In this respect, they differ from the relational nouns that refer to an actual part of an object rather than an area projected from that particular side of the object. These facts have been discussed in relation to the difference between *in front of* vs. *in the front of* above in examples (133).

As further piece of evidence in support of the difference between a relational noun and an Axial Part, Svenonius discusses the following facts: Nouns, but not Axial Parts in English, can be preceded by articles, pluralized, modified and used with measure phrases. These distinguishing properties of the Axial Parts are important since they inform us about the fact that the distinction between Axial Parts and relational nouns has morphological and syntactic reflexes in languages. Furthermore, Svenonius further argues that Axial Parts are not a subcase of the category Noun, that is, there might be items in languages that are Axial Parts but crucially do not have relational noun uses (2006, p. 65). The above discussion is important for our purposes because of the fact that some AxialPart prefixes seem to have relational noun uses in PL.⁴⁷ This is illustrated in the examples below in (149):

⁴⁷ The data related to the relational noun uses of the spatial prefixes seem quite interesting based on the fact that these prefixes actually do not have their noun-like forms as opposed to the case in other languages that Svenonius (2006) discusses.

(149) a. Layçi oxori*(-s) ela-ren.

dog.NOM house.LOC SP-is

‘The dog is near the house.’

b. Porça-şkimi(*-s) eli-kçand-u.

dress.POSS.1SG.NOM SP-whiten-PST.3SG

‘The near side of my dress became white.’

In (149a), the prefix *ela-* seems to be associated with a locative meaning, i.e. function as an AxialPart prefix. In (149b), however, it is not the same case because here the prefix does not define an area projected from the dress, but refers to the actual part of it. Therefore, the second example is an illustration of the relational noun use of this particular prefix. Notice that the two sentences above differ from one another with respect to the existence of the spatial case marker on the Ground entity. More precisely, when the prefix functions as an AxialPart, the Ground entity has to be marked with locative case marker whereas in the relational noun use, this case marker is not acceptable. Likewise, this discussion also seems to extend to *eyo-*, *mok'o-* and *kots'o-*, which might also have these two different uses as illustrated in the previous chapter.⁴⁸

What is of crucial importance at this point is that we will only be concerned with the Axial Part uses of the aforementioned prefixes, leaving the relational noun

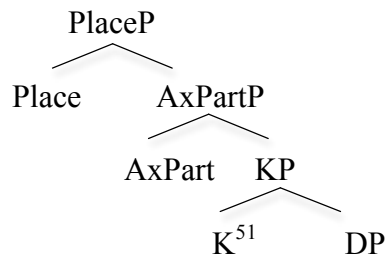
⁴⁸ In addition to these forms, *eşk'a-* also seems to be associated with a relational noun use as illustrated in the example below:

(i) Ayşe-k quqma eşk'a-çx-u.
Ayşe.ERG churn.NOM SP-wash-PST.3SG
‘Ayşe washed the inside of the churn.’

It seems rather interesting that this prefix, which refers to the area in between two or more entities, to be associated with a meaning like ‘inside’ in vicinity of the prefixes like *ama-* or *mola-*, both of which denotes a relation to the inside of an entity. This might be related to the fact that *ama-* and *mola-* bear necessarily spatial meanings like directional and locational respectively. For that reason, this form might have acquired this relational noun use. We, however, need to note that one needs further evidence to prove such a claim but we are now in no position to do so at this point.

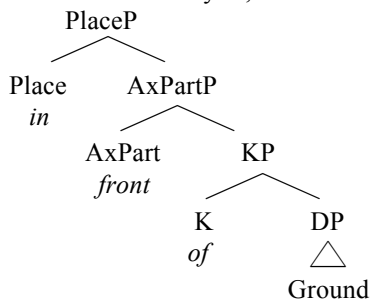
uses associated with them to further studies.⁴⁹ For the purposes of the present study, we will simply take the presence of the locative case marking on the Ground as an indication of the Axial Part use and argue that the Axial Part prefixes involve a PlaceP projection in their syntactic structure.⁵⁰ Based on this, below we provide the syntactic representation of the AxialPart prefixes in (150):

(150) Syntactic structure of AxialPart prefixes:



⁴⁹ A crucial point that needs to be made at this point is that despite the differences discussed above, the Axial Parts still need to be interpreted in relation to a reference object, i.e. the Ground. In more precise terms, it could be stated then that although Axial Parts define a specific area projected from a particular side of a Ground object, a part-whole relationship still has to be established between these two items, as in the case of relational noun uses. How this possessional relationship is established is an interesting question and needs to be further studied. Fabregas (2007b), for instance, argues for the existence of two functional projections, i.e. δP and γP , that are embedded under the AxPart head. The former of these functional head, is argued to be responsible for the formation of the possessional relationship between the Axial Part (Part) and the Ground entity (Whole). The second functional head, i.e. γP , on the other hand, is proposed to account for the noun-like properties of the Axial Parts. Whether this kind of an analysis can be extended to PL will be left as an open question for the time being.

⁵¹ In Svenonius's analysis, the K head is argued to spell out of the preposition *of* as represented below:



In Svenonius's analysis, this layer is assumed to form a possessive relationship between the AxPart (Part) and the DP Ground (Whole). For the purposes of this study, we will simply follow this analysis and argue that the part-whole relationship between the AxialPart prefixes and the Ground entity is formed via this K layer, which is null as represented above. Therefore, we will leave this layer out of the representation of the prefixes throughout this thesis. Assuming a null head, on the other hand, might seem problematic since PL has an overt genitive case marker, i.e. *-ŷi*. The existence of this marker, however, does not necessitate that it has to be overtly expressed in Axial Part constructions, a fact that is also acknowledged by Svenonius (2006, p. 56) who suggests that how the possessive relation between the AxPart and the Ground is expressed might change from language to language. In Korean, for instance, despite the existence of overt genitive case marker, i.e. *-uy*, the Ground object

Having finished the discussion on the AxialPart prefixes, we can close off this section. In the next section, we will turn to the co-occurrence facts between the spatial prefixes and motion verbs in PL. It will be demonstrated that the spatial prefixes are not compatible with all motion verbs but only with some of them.

4.3 Spatial prefixes and motion verbs

The aim of this section is to present the facts related to the interaction of the spatial prefixes with verbs in PL. Considering the existence of a wide range of verb classes with different syntactic and semantic properties, we have chosen to restrict the discussion in the present study only to a particular class of verbs, namely motion verbs. There are two primary motivations behind this choice. Firstly, since spatial prefixes express spatial relations like direction and location, they are more likely to occur with verbs that denote motion than those that do not, though not necessarily so all the time (see the examples in 81b, 90 and 149b). Secondly and more importantly, the spatial prefixes in PL seem to be selective as to which motion verbs they are to combine with, and this poses a challenge to the general assumption about the spatial prefixes in the literature (c.f. Folli & Ramchand, 2005). We will show in this section that this selectivity only partially corresponds to the split between manner of motion verbs (shortly MVs henceforth) and verbs of directed motion (DMVs hereafter for ease of reference).

It should also be noted at this point that for reasons that will become clear later, we offer a further classification within the group of MVs. More precisely, we

is bare, not inflected for genitive case when it is used with an Axial Part item as illustrated in the example below:

Inho-ka	cip	pakk-ey	se-e	iss-ta.
Inho-NOM	house	exterior-LOC	stand-E	be-DC
'Inho is standing outside the house.'			(Svenonius, 2006, p. 56)	

will argue that the MVs in PL should be divided into two classes, which we will refer to as 1st type and 2nd type. In so doing, we will follow Folli and Ramchand's classification of MVs in Italian, which have attracted a lot of attention in the literature (Zubizaretta & Oh, 2007 and the references therein).

4.3.1 Co-occurrence facts

As also stated above, the spatial prefixes in PL do not co-occur with all kinds of motion verbs as opposed to the case in other languages like English among others (Folli & Ramchand, 2005 and the references therein). It is of crucial importance to note at this point that throughout the discussion in this section, we specifically focus on the interaction between the dynamic prefixes and the motion verbs, leaving the discussion related to the other classes of prefixes to the following relevant sections, namely Section 4.4.3.

The examples in (151) and (152) below illustrate the basic facts related to the co-occurrence restrictions on the dynamic prefixes in PL:⁵²

- (151) a. Ali marketi-şe u-l-u-n.
 Ali.NOM market.ALL PRV-go-TS-IMPRF.3SG
 'Ali is going to the market.' (Verb of inherent direction)
- b. Ali marketi-şe am-u-l-u-n.
 Ali.NOM market.ALL into.PRV-go-TS-IMPRF.3SG
 'Ali is going into (entering) the market.'
- (152) a. Ali-k marketi-şe i-gzal-s.
 Ali.ERG market.ALL PRV-walk-TS-IMPRF.3SG
 'Ali is walking to the market.' (Verb of Manner)

⁵² For reasons of space, we represent the facts by reference to one particular prefix, namely *ama-*. It should be noted that the facts are also valid for other dynamic prefixes.

b. Ali-k marketi-şe *(am)-i-gzal-s.

Ali.ERG market.ALL into-PRV-walk-TS-IMPRF.3SG

Intended: ‘Ali is walking into the market.’

The examples above inform us about the fact that the dynamic prefixes of PL are only compatible with a certain group of motion verbs but crucially not with others. This contrast might seem at first sight to be related to the well-known distinction in the literature between MVs and DMVs. This prediction, however, does not appear to be borne out since not all verbs that are traditionally considered to be MVs are incompatible with the dynamic prefixes in PL as illustrated in the examples below in (153):

(153) a. K’inçi oxori-şe am-u-j-u-n.

bird.NOM house.ALL into-PRV-fly-TS-IMPRF.3SG

‘The bird is flying into the house.’

b. Elena-k parki-şe am-u-qaph-am-s.

Elena.ERG park.ALL into-PRV-run-TS-IMPRF.3SG

‘Elena is running (in)to the park.’

The examples above show us that verbs like *fly* and *run*, which have been classified as MVs by Levin (1993), are felicitous with the dynamic prefixes as opposed to the case in *walk* (or *swim*) in PL.

The contrasts presented above with respect to the (in)compatibility of different types of motion verbs with the dynamic prefixes call for an explanation. In order to account for the aforementioned facts, however, we need to be firstly more explicit about the classification of motion verbs in PL because the examples in (153) indicate to the fact that the traditional classification of motion verbs between MVs and DMVs is not sufficient to account for the PL facts. For that reason, we will offer a slightly

modified classification for motion verbs in PL whereby the MVs are divided into two particular subclasses. In the next subsection, we turn to this issue.

4.3.2 The classification of motion verbs in PL

Motion verbs have been divided into two major sub-classes in the literature, namely Manner of motion verbs (MV) and Verbs of Directed motion (DMV). These two classes of verbs differ from one another with respect to which component of the Motion verb they specify as part of their lexical meaning. More precisely, while the former class of verbs has meanings that include a notion of manner or means of motion, hence conflate the Manner component in Talmy's terms (2000a,b), the latter type of verbs includes a specification of the direction of motion, hence conflates the Path component.

These two types of verbs have also been shown to exhibit variable behaviors in languages (Levin, 1993). This primarily follows from the differences in their syntactic and aspectual properties. While MVs are generally activity-denoting verbs with an unergative structure, DMVs are usually achievements and their syntactic properties are that of an unaccusative verb. These facts are illustrated in the examples below in (154):

(154) a. The boy fell/ went/ arrived/left *for an hour. (DMVs)

b. The boy ran/ walked/swam for/*in an hour. (MV)

As illustrated in the examples above, MVs are felicitous with *for*-adverbials but crucially not with *in*-adverbials whereas DMVs are not compatible with *for*-adverbials, which suggests that MVs denote activities, hence atelic whereas DMVs denote telic eventualities based on the fact that durational adverbials are assumed to be felicitous with unbounded eventualities but crucially not with telic ones.

As for the argument structural properties of these two kinds of motion verbs, the fact that MVs have an unergative structure whereas DMCs are unaccusatives is evidenced by the difference in auxiliary selection in many languages like Dutch, French and so on. As illustrated in the French examples below in (155), while DMCs require the use of the auxiliary *be*, the auxiliary that is used with MVs is *have*:

(155) a. Balkız est partie.

Balkız.NOM is left

‘Balkız left.’

b. Balkız a couru pendant une heure.

Balkız has ran for an hour

‘Balkız ran for an hour.’

(French)

Let us now study the PL facts presented in the previous section in light of the discussion above. Recall from Section 4.1 that MVs and DMVs differ from one another in terms of the pre-root vowel, thematic suffix and 3rd person agreement markers they take and also the case marker appearing on their subjects. This is summarized in Table 11 below:

Table 11. Morphological Markings on MVs and DMVs

	Pre-root vowel	Thematic Suffix	3 rd person agreement	Subject case
MVs	i-	-am	-s	Ergative
DMVs	u-	-u(r)	-n	Nominative

Recall also that the argument and event structural properties of the verbs are reflected through the thematic suffix they are associated with. While *-am* marks activities (and accomplishments), *-u(r)* is used with achievements. Also, it should be

noted that the third person agreement marker appearing with DMVs is the same as the cliticized form of the copula *be* in PL, which is *on* (see example 130).

The morphological markers given in the table above seem to suggest that while MVs denote activities and are associated with an unergative syntax, which is evidenced by the ergative case marker on their subjects, DMVs have an unaccusative structure with nominative subjects and are typically achievements as indicated by the thematic suffix *-u(r)*. In this respect, PL also seems to behave like the Indo-European languages in marking the distinctions between MVs and DMVs as discussed above.

It should be noted at this point that the verb *fly* ‘*j*’ in PL patterns with DMVs in PL with respect to the morphological markers they take as illustrated in (153a) although it is traditionally considered to belong to the group of MVs. This explains why it is compatible with the dynamic prefixes in PL because these prefixes are perfectly felicitous with DMVs. The verb *run* ‘*qaph*’, on the other hand, seems to remain as a challenge to this generalization because it takes the thematic suffix *-am* and its subject is marked with ergative case as illustrated in (153b), hence patterns with MVs. Notice, however, that it patterns with DMVs in terms of the pre-root vowel it gets, namely *-u* rather than *-i*. Therefore, the fact that it is compatible with the dynamic prefixes still remains to be accounted for. In other words, the well-established distinction between MVs and DMVs does not seem to suffice to account for the facts related to this verb, which exhibits similarities to both of these two groups of motion verbs.

At this point, in order to account for the peculiarities related to the verb *run* in PL, we are going to turn to the case of the motion verbs in Italian, which have been noted to be associated with similar facts (Folli & Ramchand, 2005; Zubizarreta &

Oh, 2007 among others). These studies show that a group of certain MVs in Italian including *run*, differ from verbs like *walk* or *swim* in a number of important respects. In so doing, they primarily rely on the facts related to the Goal of Motion constructions. The examples below in (156) are provided to illustrate the facts related to this discussion:

(156) a. John ran/walked (in)to the store *for/in an hour.

b. dat Jan naar Groningen twee uur lang heeft gewandeld.

that Jan to Groningen two hours long has walked

‘... Jan walked in the direction of Groningen for two hours.’

c. dat Jan in twee uur naar Groningen is gewandeld.

that Jan in two hours to Groningen is walked

‘... Jan walked to Groningen in two hours.’

(Dutch; Zubizaretta & Oh, 2007, p. 2)

c. *Maria e camminata (fino a casa).

Maria is walked.3rd p.s.fem to the house

‘Intended meaning: Maria has walked to the house.’

d. Maria e corsa (fino a casa).

Maria is ran.3rd p.s.fem *(to the house)

‘Maria has run to the house.’

(Italian; Zubizaretta & Oh, 2007, p. 3)

As illustrated in the example (156a), in English both *run* and *walk* can express an accomplishment, i.e. motion towards a goal that is introduced with the prepositional phrase (Goal of Motion). Likewise in Dutch, *walk* can participate in formation of an accomplishment reading, which is also evidenced by the choice of the auxiliary *be* rather than *have*. The Italian examples, on the other hand, illustrate

the fact that as opposed to the case in English and Dutch, only *run* but crucially not *walk* can lead to a Goal of Motion interpretation as clearly illustrated in (156c).

Based on the facts presented above, Folli and Ramchand (2005) come to the conclusion that while in English the dynamic prepositions can form Goal of Motion interpretations regardless of the type of motion verb, this kind of interpretation in Italian is strongly constrained by the choice of the verb. They also provide further evidence from Italian, supporting the contrast illustrated above between *run* and *walk*. They observe that as in the case of dynamic prepositions, these two verbs differ from each another in participating in Goal of Motion construction also with stative prepositions like *in* as illustrated below in (157):

(157) a. *Gianni *e* cammiato in spiaggia.

John is walkPAST in beach.

‘John walked to the beach.’

b. Gianni *e* corso in spiaggia.

John is runPAST in beach.

‘John ran to the beach.’ (Italian; Folli & Ramchand, 2005)

c. John walked/ran in the beach. (No Goal of Motion reading)

The contrast between the examples in (157a) and (157b) informs us about the fact that in Italian while the verb *run* can lead to a Goal of Motion interpretation with locative preposition *in*, as indicated by the choice of the auxiliary *be*, such an interpretation is unavailable for *walk*, hence the ungrammaticality of (157a). In English, on the other hand, neither *walk* nor *run* can lead to a Goal of Motion interpretation with locative prepositions, that is, they do behave alike as opposed to the case in Italian as shown in (157c).

Based on the facts illustrated in the Italian examples above whereby both sentences involve the same preposition, Folli and Ramchand suggest that the contrast between these two verbs is a result of the difference in the lexical specification of these verbs. Details aside for the time being (to which we will turn in the following sections), they offer a classification for MVs in Italian where these verbs are divided into two major classes as represented below in (158):⁵³

- (158) a. Type 1: *correre* ‘run’, *rotolare* ‘roll’, *volare* ‘fly’ and so on
 b. Type 2: *camminare* ‘walk’, *nuotare* ‘swim’, *danzare* ‘dance’ and so on

Going back to the discussion related to the verb *run* in PL, it should be recalled that there is a contrast between *walk* (and *swim*) and *run*, i.e. while the former cannot combine with the dynamic prefixes, the latter is felicitously used with them (see examples 152b and 153b). Remember also that these two verbs also differ with respect to the pre-root vowel they take, i.e. *u-* vs. *i-* respectively, even though they take the same thematic suffix, namely *-am*, (and third person agreement marker in imperfective, i.e. *-s* as shown above) indicating that they are both MVs rather than DMVs with an unaccusative structure.

Based on the discussion above and the facts illustrated in the Italian and PL examples, we will argue that *run* and *walk* belong to different classes of MVs in PL as well. In the following sections, in line with Folli & Ramchand (2005), we will also argue that these two verbs are associated with different lexical specifications as also suggested by the difference in the pre-root vowels that are required by these two particular verbs.

With the further division within the members of the MVs, the classification of the motion verbs in PL looks as represented in Table 12 below:

⁵³ In Ramchand and Folli’s study (2005), these two classes are respectively given as below:
 a. [+V,(+R)] b. [+v,+V]

Table 12. The Classification of Motion Verbs in PL

MOTION VERBS		
Manner Verbs (MV)		Inherently directed (go, fly etc.)
1 st type (walk, swim)	2 nd type (run)	✓
✗	✓	

Having established the classification of motion verbs in PL, in the next section we turn to the discussion of the lexical specification of these verbs in PL with the purpose of accounting for the co-occurrence restrictions and facts of the spatial prefixes summarized in Table 12.

4.4 Internal structure of the motion verbs: Decomposition of motion verbs

In this section, our aim is to study the internal structure of the motion verbs in PL. Specifically, we will propose that the three different types of motion verbs as classified in the previous section are associated with different lexical entries. In so doing, we will partially follow the decompositional analysis proposed in Son and Svenonius (2008) who build their analysis on the assumptions of Ramchand (2008). As for the split proposed above within the MVs in PL, we will extend the analysis developed in Fabregas (2007a) for Spanish to PL and also use a slightly modified version of Folli and Ramchand's analysis for Italian (2005).

Our analysis will therefore combine the main arguments made in the literature to account for the variable behaviors observed within the class of motion verbs in languages. The reason for adopting this kind of an eclectic analysis is primarily to account for the differences observed within the members of the motion verbs in PL as thoroughly discussed above. The analyses that we follow will be thoroughly discussed and explained with illustrative examples in the remainder of this section.

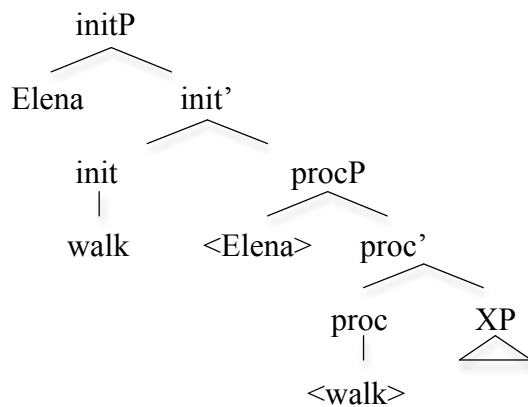
4.4.1 The decomposition of motion verbs in Ramchand (2008)

On the basis of a cross-linguistic study of argument structure and verb semantics, Ramchand (2008) proposes a tripartite division for the vP, which is decomposed into three syntactic projections as follows: Initiator Phrase (InitP), Process Phrase (ProcP) and Result Phrase (RP). In a nutshell, the idea behind this kind of decomposition is that an initiator starts or leads to a process, which then potentially leads to a result state. Ramchand then proceeds to argue that different combinations of these three projections give rise to the derivation of different classes of verbs. In other words, her main argument is that different classes of verbs are represented in the syntax as different combinations of the aforementioned three projections. Since the discussion in this section is restricted to only a particular class of verbs, i.e. motion verbs, below we will briefly discuss how these verbs are analyzed in Ramchand (2008).

In order to account for the differences between MVs and DMVs illustrated with examples in the preceding parts of the present study, Ramchand (2008) argues that these two kinds of verbs are associated with different syntactic representations. More specifically, her main argument is that while MVs are intransitive [Init, Proc] verbs, DMVs are represented in the syntax as [Init, Proc, Res]. This kind of an analysis is proposed to account for the differences in the aspectual properties of the aforementioned classes of verbs. In other words, while it is the case that the majority of MVs (in English all) denote unbounded eventualities, i.e. activities, DMVs are typically achievements. In (159) and (160) we provide the syntactic representations of an exemplary verb from each of these two classes. The MV that we discuss is *walk* and the DMV is chosen as *fall*, both of which are also known to be associated with different argument structural properties, i.e. the first one having an unergative syntax while the second is associated with an unaccusative one:

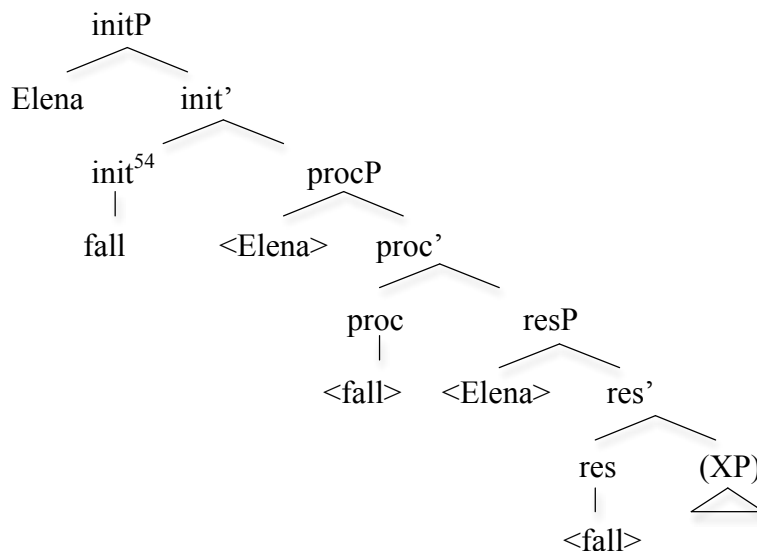
(159) Syntactic structure of MVs: [Init,Proc]

Elena walked.



(160) Syntactic structure of DMVs: [Init,Proc, Res]

Elena fell.



One important point about the derivation of the above sentences in Ramchand's analysis is that the arguments of the verbs or the participants of the events occupy the specifier position(s). This follows from the fact that, in the Ramchandian model, each sub-eventual head introduces and licenses different participants that appear in the respective specifier positions. Furthermore, Ramchand

⁵⁴ As opposed to the general assumption that the sole arguments of unaccusative verbs are not taken to be agents, hence initiators, Ramchand (2008) suggests that these verbs involve an **InitP** in their lexical representation. Since the (non)existence of this projection would not lead to a change in our analysis, hence irrelevant for our purposes, we simply represent unaccusative verbs in the same way Ramchand does in her study.

also suggests that a single DP can occupy different specifier positions and bear composite participant roles, which is basically derived through movement indicated by angle brackets. Therefore, the assumption is that in (159), *Karena* is interpreted to be both the initiator and the undergoer of the event. Likewise, in (160), *Karena* is also the holder of the result state in addition to the two participant roles as described in the previous example, i.e. the initiator and undergoer.

To summarize the discussion thus far, it can be stated that the crucial difference between the MVs and DMVs lies in the (non)existence of a result projection in the lexical specifications of these two types of verbs. While the latter involve this projection, the former crucially do not.

Keeping this discussion in mind, let us now turn to the discussion of how motion verbs are analyzed in Son and Svenonius (2008), who build their analysis on the basic assumptions of Ramchand (2008) presented above.

4.4.2 Son and Svenonius (2008)

The main goal in Son and Svenonius (2008) is to examine in the interaction between the Directed Manner of Motion Constructions (DMMCs for short) on the one hand, and the Resultative Constructions on the other. Leaving aside the Resultative Constructions, which do not concern us here, DMMCs are defined as constructions whereby a MV, together with a goal expressing PP, yields a directed motion interpretation. Details aside, what Son and Svenonius observe is that there is variation among languages in terms of the availability of DMMCs. More specifically, they suggest that languages can be divided into three groups based on whether they license DMMCs. Firstly; there are languages like English in which any type of MV can form a grammatical DMMC. The second group consists of

languages like Japanese and Korean that do not allow DMMCs at all. The last group involves languages like Malayalam in which DMMCs are available only with a certain group of MVs but not with others, which always require the use of an auxiliary verb to form DMMCs. These facts are illustrated in the examples below in (161):

(161) a. John {walked/ran/danced/crawled} into the room. (English)

b. *Mary-ka kakey-ey ttwi/kel/ki-ess-ta.

Mary-NOM store-LOC run/walk/crawl-PST-DC

Intended Meaning: ‘Mary ran/walked/crawled into the store.’

(Korean; Son 2009, p. 213)

c. Mary office-il-ekka {natann-u/oot-i}.

Mary office-LOC-DIR walk-PAST/run-PAST

‘Mary walked/ran to the office.’ (Malayalam)

d. Kutti paalatt-inte atiy-il-ekka nrittam vaccu-konta *(poy-i)

child bridge-GEN under-LOC-DIR dance keep-INSTR go-PAST

Intended Meaning: ‘The child danced under the bridge.’ (Malayalam)

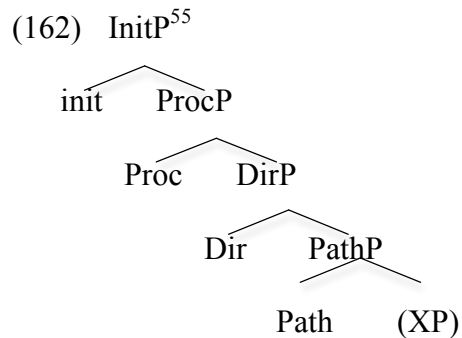
(Son & Svenonius, 2008)

Son and Svenonius argue that the asymmetries in the availability of DMMCs in languages can be explained with reference to the lexical inventories of the languages. More specifically, their main argument is that whether MVs can form DMMCs or not is dependent on the existence of a telic Path-denoting adposition. Leaving the details of this discussion aside, let us now turn to the issue of how different types of motion verbs are analyzed in Son and Svenonius’ study.

Son and Svenonius (2008) discuss three groups of motion verbs. The first group consists of DMVs like *come* and *go*, which they argue to freely form DMMCs

cross-linguistically. In the second group, they include the canonical examples of MVs such as *run* and *walk*, which form DMMCs only in some languages like Malayalam and English but not in Japanese for instance. The last group consists of verbs like *dance* or *crawl*, which participate in the formation of DMMCs only in English, but not in the others.

In order to account for these asymmetries exhibited by different motion verbs, Son and Svenonius argue that these verbs are associated with different syntactic structures. The syntactic structure, which they associate with motion verbs, is as in (162):



Based on the structure above, Son and Svenonius argue that the three groups of motion verbs are tagged in the lexicon with the following specifications in (163):

(163) Motion verbs in Son and Svenonius

- a. 1st group, i.e. *go*, *come* : [Init, Proc, Dir, Path]
- b. 2nd group, i.e. *run*, *walk* : [Init, Proc, Dir]
- c. 3rd group, i.e. *dance*, *crawl*: [Init, Proc]

Since we do not make any specific claims about the verbs in the third group, we shall now focus on the distinction between the verbs in the first and the second group. As represented above, the crucial difference between these two types of verbs lies in the (non)existence of the Path layer. More specifically, while the Path head is

⁵⁵ Bar levels are omitted for the sake of simplicity.

always present in the lexical specification of the DMVs, MVs seem to lack it. Based on the fact that *Dir* head is assumed to exist in the lexical specification of both of the two, we will simply leave it out from the discussion in this study. With this slight modification, the lexical specification of the motion verbs would look as in (164):

(164) The lexical specification of motion verbs (New version)

a. 1st group, i.e. *go, come* : [Init, Proc, Path] (DMVs)

b. 2nd group, i.e. *run, walk, swim* : [Init, Proc] (MVs)

The former group above corresponds to DMVs and the latter to MVs. Recall, however, from the above discussion that in English all MVs can participate in the formation of DMMCs, hence behave alike. This, however, is not the case in PL in which verbs like *walk* and *swim* behave differently from *run*. Therefore, we still need to account for this contrast. The facts concerning the contrast in DMMCs are exemplified below in (165):

(165) a. Ali-k marketi-şe i-gzal-u.

Ali.ERG market.ALL PRV-walk-PST.3SG

Intended meaning: ‘Ali walked to the market.’

b. Ali-k marketi-şe u-qaph-u.

Ali.ERG market.ALL PRV-run-PST.3SG

‘Ali ran to the market.’

In line with Son and Svenonius’s analysis, it could be simply suggested that the verb *run* involves a Path layer in its lexical specification based on the fact that it patterns with DMVs in forming DMMCs unlike *walk* and *swim* as illustrated in the example (165) above. Recall also that *run* also takes the same pre-root vowel as that of the DMVs in PL. Such an analysis, on the other hand, seems to overlook the similarities between *run* and *walk* such as the thematic suffix they take and those that

will be discussed in the upcoming section. For that reason, we will propose an alternative analysis for this verb in line with the arguments of Folli and Ramchand (2005) and Fabregas (2007a), which we turn to below.

4.4.3 Folli and Ramchand (2005) & Fabregas (2007a)

As mentioned in Section 4.3.2, Folli and Ramchand (2005) aim to account for the variable behavior observed by different types of MVs in Italian. Their basic argument relies on the fact that while a certain group of MVs like *run* and *fly* can lead to a Goal of Motion interpretation together with stative prepositions like *in*, this kind of an interpretation is totally unavailable with other MVs such as *walk* or *swim*. These facts have been illustrated in Section 4.3.2 above and here we repeat the relevant examples for ease of reference in (166):

(166) a. *Gianni e cammiato in spiaggia.

John is walkPAST in beach.

‘John walked to the beach.’

b. Gianni e corso in spiaggia.

John is runPAST in beach.

‘John ran to the beach.’ (Italian; Folli & Ramchand, 2005)

c. John walked/ran in the beach. (No Goal of Motion reading)

In order to account for the contrasts above, Folli and Ramchand (2005) suggest that MVs in Italian should be divided into two main classes with different lexical specifications; one without a Result projection and the other optionally projecting it as represented below in (167):

(167) a. [+V, (+R)]: *correre* ‘run’, *rotolare* ‘roll’, *volare* ‘fly’ and so on

b. [+v, +V]: *camminare* ‘walk’, *nuotare* ‘swim’, *danzare* ‘dance’ and so on

This argument primarily relies on the assumption that when a verb lexicalizes a Result projection, the point locating prepositional phrase can fill in the complement position of this projection, hence specify the content of this Result head in the sense of Ramchand (2008), which would then give rise to a Goal of Motion interpretation. Along the same lines, Fabregas (2007a) argues that in Spanish the locative preposition *a* can lead to a Goal of Motion reading only with some MVs but crucially not with others as illustrated in the examples below in (168):

(168) a. Juan permanecio/esta al borde (del acantilado).

Juan stayed/is at.the border of.the city

‘Juan stayed at the border of the city’.

b. El pajaro volo a su nido.

the bird flew at his nest

‘The bird flew to his nest.’

c.* Juan bailo a la oficina.

Juan danced to the office

Intended Meaning: ‘Juan danced to the office.’

(Spanish; Fabregas, 2007a)

The (168a) example above indicates that the preposition *a* in Spanish is compatible with stative verbs, hence is not inherently dynamic. The contrast between (168b) and (168c), on the other hand, is argued to arise from the difference in the lexical specifications of the verbs. In so doing, however, Fabregas (2007a) differs from Folli and Ramchand (2005) in assuming that the locational prepositions are complements of the Path projection rather than the Result projection. The idea behind this assumption is that when the locational prepositions are embedded under PathP, they denote one point inside that Path. More precisely, when embedded under

PathP, the PlaceP denotes the final locational point of the path, which gives rise to the Goal of Motion interpretation. Therefore, it seems to be the case that what Folli and Ramchand (2005) argues to be responsible for the Goal of Motion reading with stative prepositions, i.e. Result head, corresponds to the Path head in Fabregas (2007a).⁵⁶ Following this kind of reasoning, Fabregas (2007a) proposes that the verbs that lead to a Goal of Motion interpretation with stative prepositions in Spanish lexicalize a Path in their lexical specification as opposed those that do not as represented below in (169):

(169) a. *volar* ‘to fly’, *corer* ‘run’, *caminar* ‘walk’: [Proc, Path]

b. *flotar* ‘to float’, *bailar* ‘to dance’, *temblar* ‘to shiver’: [Proc]

In light of the discussion above, let us now look at the motion verbs in PL.

Recall from Section 4.2.2.3 that the AxialPart prefixes in PL are locational prefixes.

The interaction of these prefixes with different kinds of motion verbs in PL is different. The relevant facts are illustrated in the examples below in (170):

(170) a. Özlemi nca-s ets’o-xt⁵⁷-u.

Özlem.NOM tree.LOC under-go-PST.3SG

‘Özlem went (to the area) under the tree.’ (Only Goal of Motion)

b. Özlemi-k nca-s ets’-i-gzal-u.

Özlem.ERG tree.LOC under-PRV-walk-PST.3SG

‘Özlem walked (in the area) under the tree.’ (Only Location of Motion)

c. Özlemi-k nca-s ets’-u-qaph-u.

Özlem.ERG tree.LOC under-PRV-run-PST.3SG

‘Özlem ran (to the area) under the tree.’ (Goal of Motion)

‘Özlem ran (in the area) under the tree.’ (Location of Motion)

⁵⁶ Likewise, Ramchand (2008) also analyzes the preposition *to* in English under both Path and Result.

⁵⁷ -xt- is the perfective stem of ‘go’. Its elsewhere realization is -l-. The pre-root that we can see with -l- is not visible with -xt-.

The example (170a) above shows us that the AxialPart prefixes can lead only to a Goal of Motion interpretation with DMVs. The second example, on the other hand, demonstrates that the only available reading with the verb *walk* is that of a Location of Motion, which suggests that the AxialPart prefixes can only lead to a locational reading, but crucially not Goal of Motion with this type of verbs. Lastly, as illustrated in (170c), the verb *run* patterns with both DMVs and *walk* since both Goal and Location of Motion reading are available, hence exhibits variable behavior.

Based on the facts presented above, following Fabregas (2007a) and Folli and Ramchand (2005) we will argue that the verb *run* in PL optionally projects a Path (or Result à la Folli & Ramchand, 2005). This kind of analysis seems to account for the observed similarities of *run* with both DMVs and verbs like *walk*. The idea is that when *run* projects a Path layer it can participate in formation of DMMCs and Goal of Motion constructions, hence pattern with DMVs as illustrated with examples above. When it does not project this layer, on the other hand, it behaves more like *walk*-type verbs, hence the Location of Motion reading being available with this verb in addition to the Goal of Motion.

With the analysis proposed above, the lexical specification of the verb *run* in PL seems to be as below in (171):

(171) The lexical specification of ‘*qaph*’: [Init, Proc, (Path)]⁵⁸

⁵⁸ Recall that the DMVs and *qaph* ‘run’, both of which are assumed to project a Path layer in the analysis proposed in this study, take the pre-root vowel *u-* and can form DMMCs and Goal of Motion Constructions in PL. This seems to suggest that there is a correlation between the Path layer and this particular pre-root vowel. Based on this, it can be claimed that *u-* marks the goal in motion verb constructions. Further evidence for this claim comes from the fact that this pre-root vowel is also used to mark the (animate) goals with verbs like *send* as illustrated in the example below:

(i) Koç-epe-k bere-s cenç’areri-Ø u-ncgon-es
 man.PL.ERG child.DAT money.NOM 3APPL-send-PST.3PL
 ‘The men sent the money to the child.’

Based on this, it seems possible to argue that the pre-root vowel *u-*, which occurs with the aforementioned motion verbs is the same as the applicative marker *u-*, which introduces the goal argument with verbs like *send*.

4.4.4 The lexical specifications of motion verbs in PL: Overall

The aim of this section is to combine the different analyses proposed thus far in the literature for motion verbs in a way that would account for the motion verbs in PL. In following the studies that are discussed in the previous section, we propose that different types of motion verbs in PL are associated with different lexical specifications.

Recall from Section 4.3.2 that we suggest that the motion verbs in PL should be divided firstly into two main classes as DMVs and MVs. The latter is then argued to be of two-types. The first group consists of MVs like *walk* and *swim*, and the verb *run* is included in the second group. The lexical specification associated with each of these classes is provided in Table 13 below:

Table 13. Motion Verbs and their Lexical Specifications in PL

MOTION VERBS		
Manner Verbs (MV)		Inherently directed (go, fly etc.)
1 st type (walk, swim)	2 nd type (run)	
[Init, Proc]	[Init, Proc, (Path)]	[Init, Proc, Path]
X	✓	✓.

Having established the lexical specifications of different types of motion verbs in PL, which we believe to give rise to the differences between them, let us now proceed to discuss the interaction of these verbs with the spatial prefixes in PL. The following sub-section is devoted to this discussion.

4.5 Dynamic prefixes as specifiers of Path

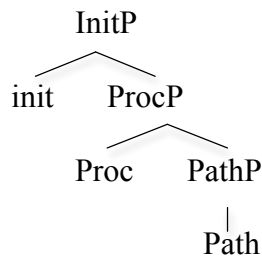
The aim of this section is to account for the co-occurrence facts related to the spatial prefixes and the motion verbs in PL. Based on the discussion in the previous parts in this section, it will be argued that the dynamic spatial prefixes in PL function as the

specifiers of the Path head but crucially not introduce it although they involve this layer in their lexical specifications. In this respect, PL seems to behave differently from Indo-European languages like English, in which the spatial P-like elements do not exhibit selectivity as in the case of PL.

As can be seen in Table 13, the possibility of using a dynamic spatial prefix with a motion verb seems to correlate with the presence of a Path projection within the lexical specification of the verb. In other words, the spatial prefixes in PL are compatible only with verbs that project a Path layer but crucially not with those that do not involve it. Therefore, when a verb does not project Path, this layer seems not to be introduced via the spatial prefixes as opposed to the case in other languages like Italian in which morphologically complex prepositions are compatible with all motion verbs regardless of the particular class they belong to (Folli & Ramchand, 2005). On the other hand, since the Path layer has to be introduced by the verb for a dynamic prefix to be compatible with that verb, it seems to be the case that the prefixes in PL only specify the content of the Path that is licensed by the verb but crucially cannot introduce it on their own.

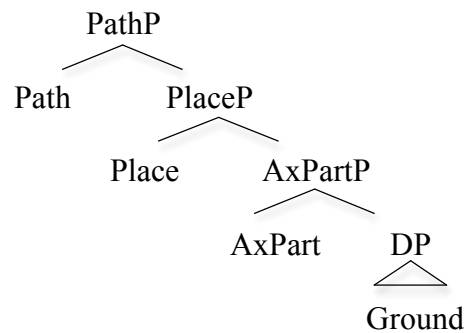
This kind of an analysis, however, seems to be problematic when the lexicalization of the structure is considered. This primarily follows from the fact that both the verb and the dynamic prefixes involve a Path layer in their lexical specification. Therefore, there seems to be two candidates for lexicalizing the same syntactic head, i.e. the Path head. These facts are clearly represented in the syntactic structures given below in (172), which represents the syntactic structures of the motion verbs and in (173) representing the syntactic structures of the dynamic prefixes. Notice that all of the structures share with one another the property of having a Path layer:

(172) The lexical specification of the motion verbs that are compatible with dynamic prefixes

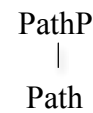


(173) The lexical specification of the dynamic prefixes

a. Complex Prefixes



b. Path-only prefixes



Below we turn to the issue of lexicalization of the syntactic structures with the lexical entries, whereby we will argue that the abovementioned problem concerning the lexicalization of the structure is solved within the Nano-syntactic framework, which is proposed primarily by Starke (2009) and then developed by Caha (2009), Pantcheva (2011) and Ramchand (2008).

4.6 Spell-out of the syntactic structures with dynamic prefixes

In this section, our aim is to provide an analysis for the spell-out of the syntactic structures that involve dynamic prefixes. For this purpose, we will adopt a Nano-syntactic approach and, following the Anchor Condition proposed by Caha (2009) show that the Path feature is actually spelt-out by the motion verb, rather than the prefixes.

This section is organized as follows: Firstly, we will introduce the basic tenets of the Nano-syntactic framework, which is a novel approach to the spell-out mechanism of syntactic structures (Starke, 2009). In this section, we will discuss the basic assumptions of this framework concerning the spell-out of the syntactic structures, namely Phrasal Spell-out and the Superset Principle. Then, we continue to introduce the Anchor Condition, which is proposed by Caha (2009). And in the second subsection, we will show how the Nano-syntactic approach could be applied to the PL data which we are concerned with.

4.6.1 Nano-syntax: Basic mechanisms and operations

The basic assumption in Nano-syntax is that syntactic terminals are very ‘small’, i.e. each syntactic terminal corresponds to a unique feature, hence the ‘nano’ bit in the name of the framework (Starke, 2009; Caha, 2009; Panthcheva, 2011). In this framework, syntax is assumed to have all the generative power and it takes the atomic features and arranges them into syntactic structures by Merge. The order of the syntactic features is subject to a universal hierarchy called the *functional sequence* (fseq), which builds on the related work in the cartographic approach (Cinque, 2002).

Under the Nano-syntactic approach, morphemes, on the other hand, are taken to be just the reflection of how chunks of syntactic features are stored in the lexicon, which contains subtrees paired with phonological and conceptual information. This seems to follow from the assumption that the syntactic terminals are not lexical items (words or morphemes), but they are sub-morphemic and correspond to an entire subtree rather than a terminal. Spell-out is then the operation that replaces a piece of the syntactic tree generated by syntax by a lexical entry from the lexicon, which is

simply a list of entries where fragments of syntactic structures are paired with phonological information and conceptual content. In other words, Spell out matches the syntactic tree constructed by Syntax with the structures that are stored in the lexicon.

The fact that the lexical entries in the lexicon can involve syntactic structures consisting of multiple terminals makes it possible for a lexical entry to spell out or replace a syntactic structure that contains multiple terminals. Following from this, Nano-syntax assumes that non-terminal nodes can also be the target of lexical insertion as well as terminal nodes, which suggests that phrasal spell-out or phrasal lexicalization is possible in this framework as opposed to the Distributed Morphology Model, which suggests that lexical entries can only be inserted under terminal nodes (Halle & Marantz, 1993).

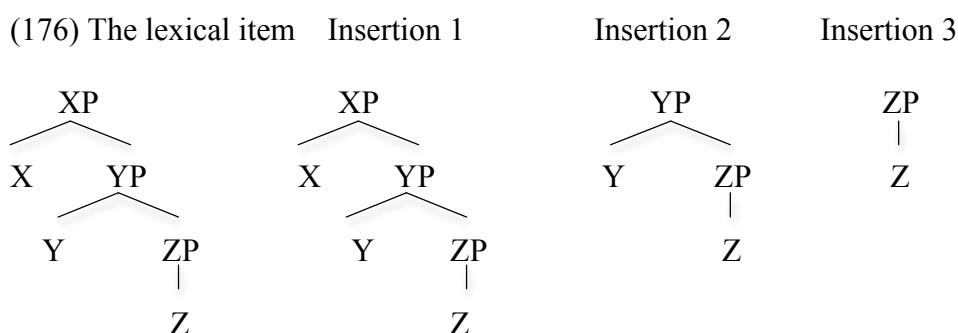
Nano-syntax also claims that the Spell-out is subject to the Superset Principle, which suggests that the lexical tree is either identical to or bigger than the syntactic node it is inserted into. The lexical items in Nano-syntax are therefore overspecified, i.e. they can involve more syntactic features than they actually spell out. The Superset Principle is provided below in (174):

(174) The Superset Principle (Starke, 2009; Caha, 2009): A vocabulary item matches a node if its lexical entry is specified for a constituent containing that node.

The Superset Principle makes it possible for a lexical item to spell out a syntactic structure that involves fewer features than the syntactic tree stored in it. This possibility is, however, constrained by a condition that suggests that the lowest feature of the lexical entry must be matched against the syntactic structure. In other words, the lowest feature in the lexical tree must always be spelt-out. This is known as Anchor Condition, which is given in (175) and proposed by Caha (2009):

(175) The Anchor Condition: In a lexical entry, the feature which is the lowest in the functional sequence must be matched against the syntactic structure.

This condition makes it possible that only the higher/highest features in a lexical tree can remain unexpressed but crucially not the lowest one. This leads to *down-squeezing* or *shrinking downwards*, which happens when a lexical item cannot lexicalize the syntactic structure that is identical to the tree stored in it, but only a subset of it. The diagrams below illustrate the Superset Principle and The Anchor Condition at work. The phrasal lexical item XP can be inserted any of the three potential syntactic structures given below in (176):



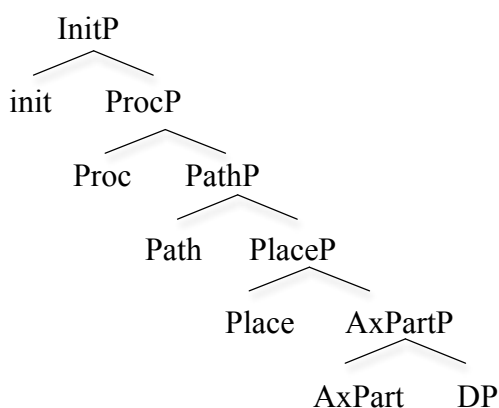
Last thing to note about Nano-syntax is that syntax is entirely pre-lexical, hence the lexicon, i.e. the lexical entries, does not feed syntax (Starke, 2009). This being the case, in Nano-syntax, insertion of lexical items is taken to be post-syntactic as opposed to the case in Minimalism (Chomsky, 1995), which argues for early lexical insertion.

4.6.2 The spell-out of the Path head

Recall from the previous subsection that in Nano-syntax (Starke 2009), abstract linguistic features are merged complying with a universal hierarchical order, which has been referred to as the functional sequence, abbreviated as fseq. We will now turn to the issue concerning the fseq of the motion expressions.

Following the analyses developed in Son and Svenonius (2008) and Pantcheva (2011), we basically propose that the functional order for the motion expressions, which are the main concern of this study, is as represented in (177):

(177) The fseq of motion expressions

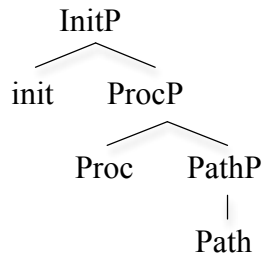


As can be seen in the representation above, although there is only Path feature in the fseq. Recall, however, from the previous sections that the dynamic prefixes are only compatible with motion verbs that involve a Path feature in their lexical specification. Therefore, it seems that the Path feature can potentially be lexicalized by two different lexical items, i.e. either by the motion verb or the dynamic prefix. Despite this being the case, we will show that the number of the candidates for the spell-out is actually not two as suggested by the discussion above but there is only one potential candidate.

The Anchor Condition, on the other hand, seems to necessitate that this feature can only be lexicalized by the motion verb, but crucially not by the prefix. This follows from the fact that the lowest feature in the lexical entry must be matched against the syntactic structure. Notice that the lowest feature in the lexical specification of the DMVs and 2nd type MV *qaph*⁵⁹ ‘run’ is Path as represented below in (178):

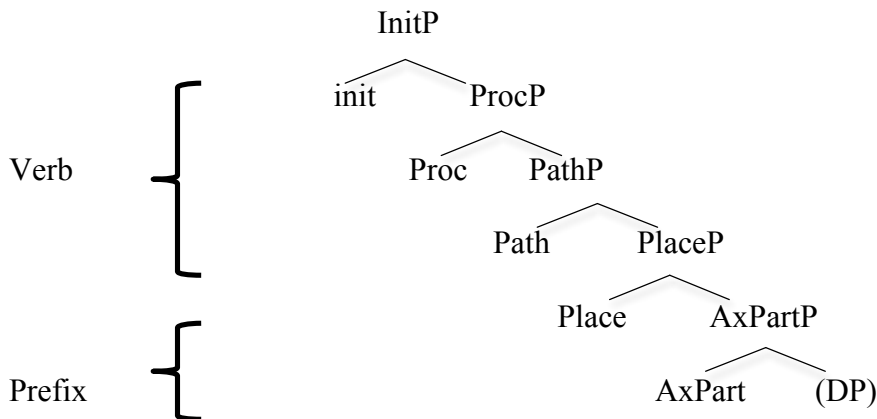
⁵⁹ We consider the cases in which run in PL projects a Path feature, excluding the case where it does not.

(178) a. The syntactic structure in the lexical entries of DMVs and *qaph*



This being the case and given the Anchor Condition, the Path feature in the fseq in (177) can only be lexicalized by the verb. In other words, the Anchor Condition eliminates the second potential candidate, i.e. the prefixes, for lexicalizing this particular feature. In such cases, the lexical entries of the prefixes need to down-squeeze and lexicalize only the remaining lower features. These are illustrated below in (179):

(179) The spell-out of the structures of motion verbs plus dynamic prefixes



To summarize the discussion in this section, it can be concluded that when a motion verb co-occurs with a dynamic spatial prefix in PL, it is the verb but crucially not the prefix that spells out this feature under the Nano-syntactic framework that is adopted in the current study.

Having established how the spell-out of the syntactic structures associated with the motion constructions we are concerned with, in the next section, we will

turn to Talmy's typology of motion events and question the status of PL as a satellite-framed language given the facts that are presented in the previous sections.

4.7 Revisiting Talmy's typology: Is PL really a satellite-framed language?

In this section, our aim is to reconsider, in light of the discussion above, the place of PL in Talmy's typology of motion events (2000a,b). Recall from Section 2.1.3 that Talmy suggests that languages can be divided into two classes depending on which lexical items characteristically express the Path component of the Motion Event. The first group consists of languages in which the Path is conflated into the verb root as in Romance languages, Turkish (Schroeder, 2008) and so on. The characteristic property of these languages is to have a systematic class of motion verbs that express Path like *ascend*, *descend* and the like. If, on the other hand, the Path component is not manifested in the verb but in what Talmy calls satellites, those types of languages are referred to as satellite-framed languages. Recall from the first chapter that *satellite* as a term refers to constituents that are in sister relation to a verb root and dependent to it. Therefore, verbal prefixes in Slavic and particles in Germanic languages are assumed to fall under this grammatical category. Following from this, Talmy suggests that Chinese and Indo-European languages except for Romance belong to the s-framed class.

In Section 2.1.4.2, we have suggested that PL seems to fall into the latter class based on the fact that it has verbal prefixes that denote direction of movement, i.e. Path. As has been shown in Section 4.2.2.1, PL has a set of dynamic prefixes that seem to involve a Path layer in their lexical specification, hence are incompatible with stative verbs. Note also that the prefixes in PL merit the status of satellite since they comply with Talmy's definition of the grammatical category 'satellite'. Recall

also that Kutscher (2011) argues that Laz belongs to the group of s-framed languages like Germanic and Slavic languages belonging to the Indo-European family.

The interaction of these prefixes with different types of motion verbs, however, seems to pose challenges to the argument that PL is an s-framed language. This primarily follows from the fact that the dynamic prefixes cannot be used with a certain group of motion verbs, i.e. the 1st type manner of motion verbs like *walk* and *swim* as opposed to the case in other s-framed languages like English in which the prepositional counterparts of the dynamic prefixes in PL do not exhibit such selectivity. Moreover, if the analysis proposed here is on the right track, i.e. if it is the case that the dynamic prefixes can only occur in combination with Path-denoting motion verbs, this seems to suggest that although the prefixes in PL involve Path information, they appear only to describe the content of the Path lexicalized in the motion verb but not license the Path layer on their own, hence the incompatibility with those verbs that do not project a Path layer. Therefore, it seems that the status of PL as an s-framed language needs to be questioned as opposed to what has been claimed in Kutscher (2011).

To summarize, despite the seeming similarities between PL and other s-framed languages like Slavic, in which the spatial prefixes are realized on the verbal root, or Germanic, it might be the case that PL does not fall into the same class (contra Kutscher, 2011) with these languages in which to our knowledge there are no restrictions on the use of Path-denoting member of the category P as in PL.

Having said that PL appears not to belong to the s-framed language group, we will lastly discuss the possibility of it being a member of the second class of languages in Talmy's Path-based typology, namely verb-framed languages. Based on the analysis proposed in this study, one can suggest that PL has two classes of

motion verbs; one involving Path and being compatible with the dynamic prefixes and the other not projecting a Path layer. Recall also that these two classes of verbs differ from one another in terms of their participation in DMMCs (see the examples in (165)). In Talmy's work (1975), it is argued that MVs in verb-framed languages do not form DMMCs but those in s-framed group do participate in these constructions.

As far as PL is considered in this respect, it seems to be the case that the non-Path projecting verbs seem to pattern with the verb-framed languages in being not able to form DMMCs whereas the verbs that license a Path projection behave like the verbs in s-framed languages. Based on these facts and leaving aside the discussion above regarding PL not having the real satellites, one can come to the conclusion that PL employs both of the strategies proposed in Talmy (2000a,b).

This issue has also been raised in other studies that question the adequacy of Talmy's typology (Beavers et al., 2010 and the references therein). The main argument in these studies is that not all languages can be easily classified into only one of the two groups of languages suggested by Talmy (2000a,b). This fact has also been acknowledged by Talmy's study with reference to the existence of a systematic class of Path-conflating Latin-origin verbs, exhibiting the properties of the verb-framed languages (Talmy, 2000a, p. 92).

The relevant facts related to PL also seem to suggest that Talmy's typology needs to be modified in order to incorporate languages like PL, in which the motion verbs exhibit divergent behaviors rather than behaving in a uniform way.⁶⁰ At this point, we simply leave open the question of how Talmy's typology could be improved. This issue needs to be discussed in further studies.

⁶⁰ I am thankful to Assist. Prof. Dilek Uygün Gökmen for pointing out this issue.

4.8 Summary

In this chapter, our aim was to bring an explanation as to why the spatial prefixes in PL can only occur with a certain set of motion verbs but not with others. For this purpose, we first presented the basic facts about the verbal complex in PL. It was demonstrated in Section 4.1 that the verb in PL has a quite complex composition that consists of a series of different suffixes and prefixes encoding various types of information. Among these, we focused only on the pre-root vowels and the thematic suffixes since these two are relevant for our purposes. It was noted in this section that the spatial prefixes are only compatible with verbs that require a particular pre-root vowel, namely *-u*, but not with those that take *-i*. Likewise, it was also stated that the thematic suffixes in PL provide information concerning the argument structural and lexical aspect-related properties of the verbs.

In Section 4.2 we studied the syntactic structures of the prefixes in PL. For this purpose, we basically relied on the finer-grained PP structure that is proposed in Svenonius (2006) who also introduced the grammatical category Axial Part. The prefixes in PL were then classified into three basic groups according to their syntactic and semantic properties. Dynamic prefixes are those that never occur with stative verbs because they inherently denote a directional meaning. Under this group, we argued for a further division, namely Complex prefixes and Path-only prefixes. The second group, on the other hand, consists of only two prefixes that are optionally associated with a directional meaning, hence referred to as Ambiguous prefixes. In the last group, we included the prefixes that refer to an area projected from a specific side of an entity, i.e. Ground.

Section 4.3 studied the interaction between the spatial prefixes and motion verbs in PL. It was demonstrated in this section that the spatial prefixes can only co-

occur with a specific group of motion verbs but crucially not with others. In order to bring an explanation as to why this is the case, in Section 4.3.2 we proposed a classification for motion verbs in PL based on their properties. This classification primarily relied on the well-known division between inherently directed and manner of motion verbs. Our classification, however, included a further split within the verbs of manner of motion in PL. It was also noted in this section that there is a similar split in motion verbs in Romance languages like Italian (Folli & Ramchand, 2005) and Spanish (Fabregas 2007a).

Building upon the classification introduced in the previous section, Section 4.4 studied the internal structure of motion verbs in PL, which were decomposed into primarily three syntactic layers, i.e. Initiator, Process, and Path in following Ramchand (2008), Son and Svenonius (2008). For the verb *run* in PL, we argued that this verb optionally projects a Path layer as opposed to the verbs of directed motion that always imply a Path and also to the first-type manner verbs which are never associated with this layer. In so doing, we followed the analyses proposed by Folli and Ramchand (2005) and Fabregas (2007a).

Based on the lexical specifications of different classes of motion verbs in PL, it was observed that there is a tight correlation between the possibility of using a dynamic prefix and the presence of a Path layer in the lexical specification of the motion verb. Since Path-denoting prefixes can only occur with motion verbs that involve Path but cannot combine with those that do not involve this layer, in Section 4.5 we came to the conclusion that the Path information in the prefixes seem only to describe the content of the Path licensed by the verb. In Section 4.6, by adopting a Nano-syntactic approach (Starke, 2009; Caha, 2009; Panthceva, 2011) we discussed the lexicalization of the syntactic structures that are composed of a motion verb plus

a dynamic prefix, both of which were shown to involve a Path layer in their lexical specification. Lastly, based on the discussion in Section 4.3, we revisited the place of PL in the motion event typology proposed by Talmy (2000a,b) and specifically argued that PL might not fall into the satellite-framed languages although it might seem so at first glance. We therefore argue against the classification proposed for Laz in Kutscher (2011) who considers Laz as an s-framed language.

CHAPTER 5

CONCLUSION

5.1 Summary of the claims and findings

This thesis investigated the spatial prefixal system of PL, which is a dialect of Laz. The aim was two-fold: First, to provide a comprehensive description of these prefixes and secondly, to account for in a principled way the restrictions on the co-occurrence of these prefixes with motion verbs. In relation to this, the place of this language within the motion event typology proposed by Talmy (2000a,b) was also examined and questioned.

Chapter 2 firstly presented the basics of the typological system proposed by Talmy (2000a,b) for motion events and tried to situate PL within this classification system. It is specifically claimed that PL seems to belong to the Motion+Co-event and satellite-framed class. Then, the main focus was put on the languages belonging to a particular class, namely the satellite-framed group, and the constructions consisting of a verb and a satellite, i.e. VSCs, in various s-framed languages, i.e. Germanic and Slavic, were discussed together with examples and a survey of related linguistic literature concerned with them. This was then followed by a comparison of PL and the aforementioned Indo-European languages in terms of the properties of their satellites.

Chapter 3 provided a comprehensive descriptive account for the spatial prefixes in PL. For this purpose, the prefixes were grouped together depending primarily on their semantic properties and the similarities and differences between them were highlighted with illustrative examples.

Chapter 4 examined the interaction of the spatial prefixes with motion verbs. It was demonstrated in this section that the prefixes in PL are only compatible with a certain set of motion verbs but crucially not with others. With the purpose of accounting for these co-occurrence restrictions, the lexical specification and syntactic structure of the motion verbs and the spatial prefixes were explored and it was shown that there is a correlation between the existence of a Path feature in the lexical specification of the motion verbs and their compatibility with the dynamic spatial prefixes. Based on this, it was further suggested that PL might not employ the satellite-framed strategy in the sense of Talmy (2000a,b) as opposed to what has been suggested in Kutscher (2011).

5.2 Suggestions for future research

In this thesis, we primarily investigated the interaction of the spatial prefixes with a specific class of verbs, namely motion verbs. However, several issues that relate to the spatial prefixes had to be left out. In this section, our aim is to briefly mention some of these issues that we believe need further research.

First, the interaction of the spatial prefixes with other types of verbs needs to be studied in details, especially with those that denote a resultant state. This is significant in order to understand whether the spatial prefixes in PL are resultative in nature as has been argued for their counterparts in other languages like Germanic and Slavic (Svenonius, 2004 among others). Following from this, the issue of Resultative Constructions (RC) in general needs to be investigated in PL, which also seems to be important in order to understand whether there is a correlation between the DMMCs and the RCs in languages as suggested by Beck and Snyder (2001) (c.f. Son & Svenonius, 2008). Recall from Chapter 4 that only the MVs that license a Path layer

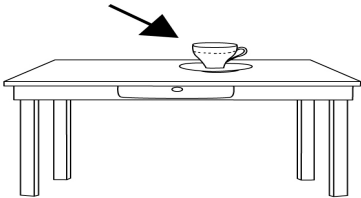
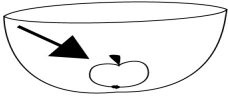
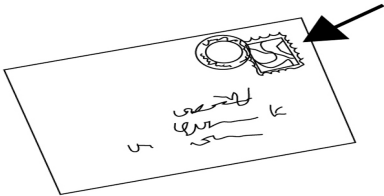
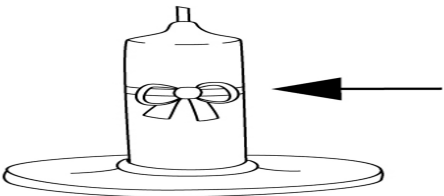
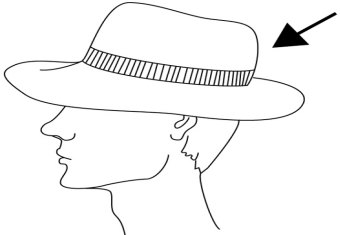
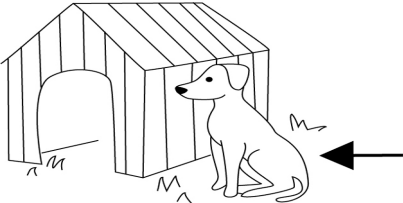
can form DMMCs along with DMVs in PL, which seems to suggest that there might be a difference between these verbs in terms of their ability to form RCs as well.

Secondly, as mentioned in Chapter 2 and 3, some of the spatial prefixes in PL are associated with adverbial meanings, which we did not address in the present study. Among these are *me-* and *ela-* ‘partially’, *meyo-* ‘again’ and *gama-* ‘completely’. The existence of such meanings seems to suggest that the aforementioned prefixes behave like measure adverbs which Tenny (2000) argues to modify into the ‘core event’, hence visible to the sub-eventual structure of the verbs. Especially important is the prefix *meyo-* the translation of which is ‘again’, which is mostly discussed in the literature as being ambiguous between restitutive and repetitive interpretations (Dowty, 1979; Tenny, 2000 among others). Therefore, it seems possible that the interaction of these prefixes with different verbs or predicates under these measure adverb readings in PL will raise important questions and issues, hence requires further research.

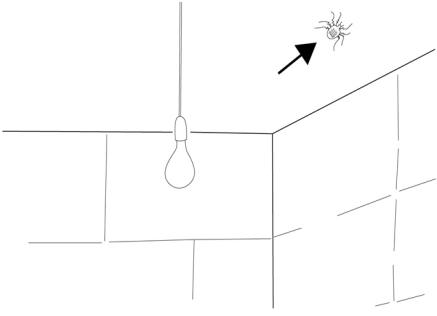
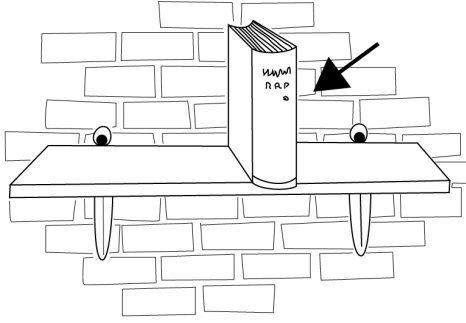
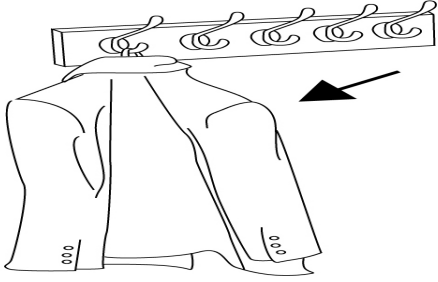
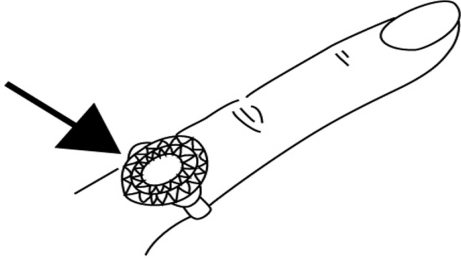
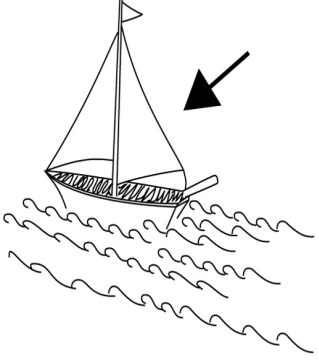
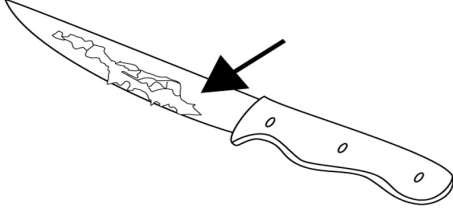
We are aware of the fact that the analysis proposed in this thesis for the interaction between the motion verbs and the spatial prefixes in PL is not conclusive and it is possible that it can turn out to be simply invalid. Nevertheless, being among still the early studies on PL, it is hoped in this study that this thesis will pave the way for further research on Laz and contribute to the linguistic theory both in general and also particularly related to the spatial expressions.

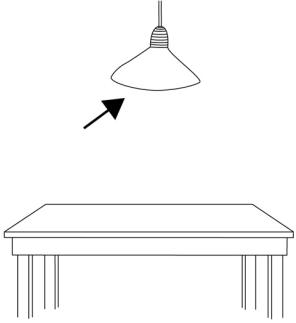
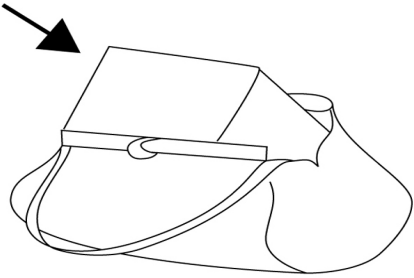

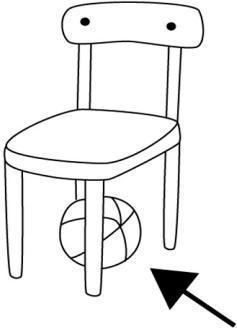

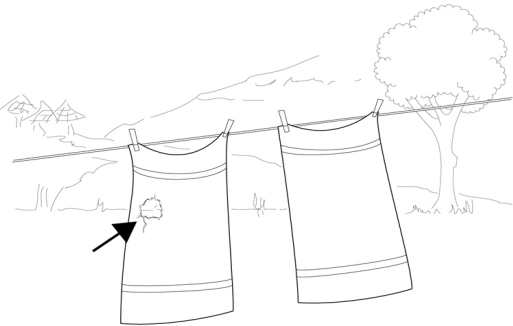
APPENDIX A

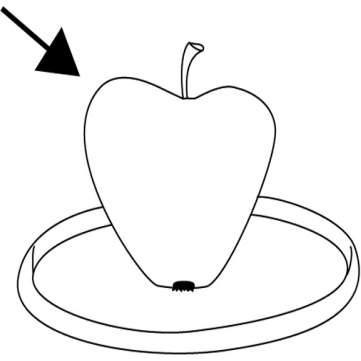
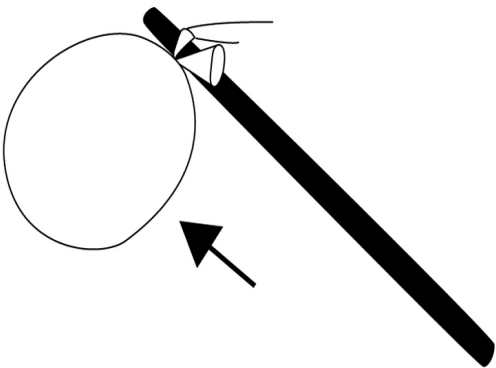
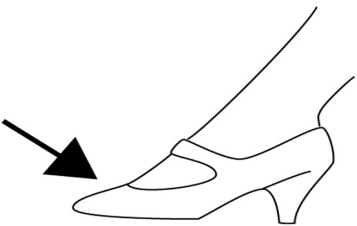
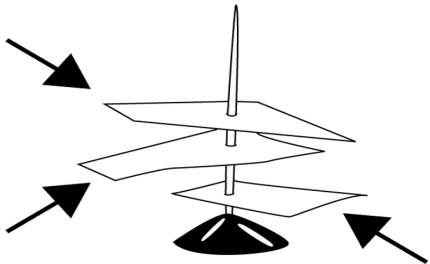
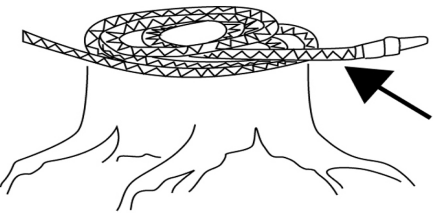
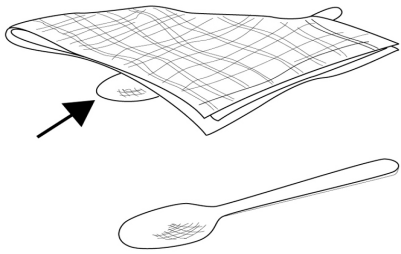
TOPOLOGICAL RELATIONS PICTURE SERIES (TRPS)⁶¹

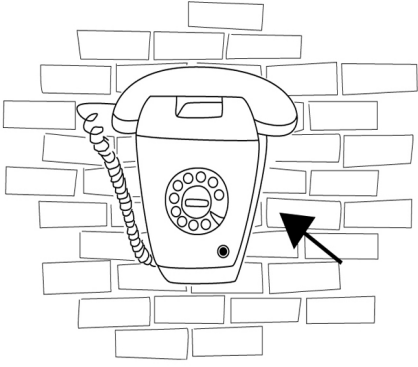
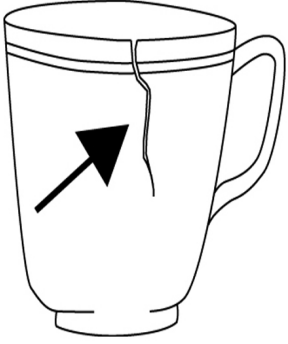
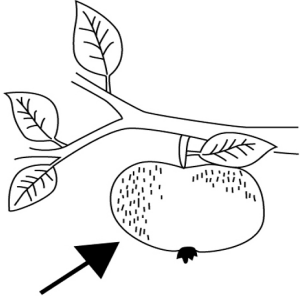

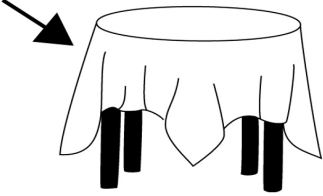
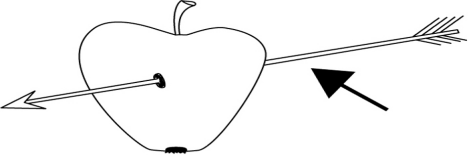
	
<p>(1) Fincani eyo-dz-u-n. cup.NOM SM-lie-TS.IMPRF-3SG 'The cup is on the table.'</p>	<p>(2) Oşk'uri qalati-s apple .NOM basket.LOC {ce/dolo}-dz-u-n. SM-lie-TS.IMPRF-3SG 'The apple is on/in the basket'</p>
	
<p>(3) Mp'uli stamp.NOM el(a)-u-t'amb-u-n. SM-APPL.3SG-stick-TS-IMPRF-3SG 'The stamp is on the near side (of the letter)'</p>	<p>(4) Mbela luk'na-s cloth.NOM candle.LOC g(o)-u-k'or-u-n. SM-APPL.3SG-wrap-TS.IMPRF-3SG 'The cloth is (wrapped) around the candle.'</p>
	
<p>(5) Kudi k'oç'i-s hat.NOM man.LOC c(e)-u-t-u-n. SM-APPL.3SG-stand-TS.IMPRF-3SG 'The hat is (standing) on the man's head.'</p>	<p>(6) Layçi bogi-s ela-ren. dog.NOM hut.LOC SM-is 'The dog is near the hut.'</p>

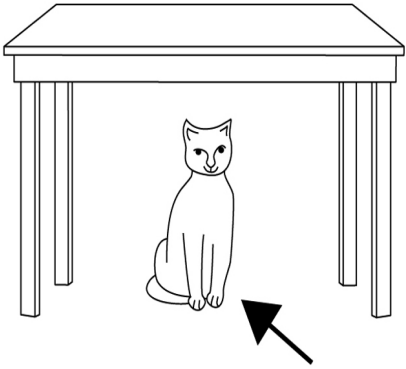
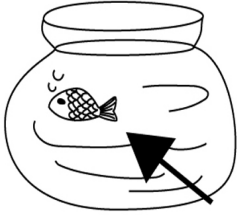
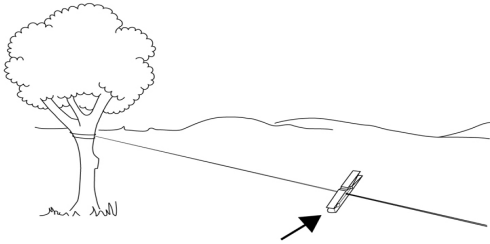
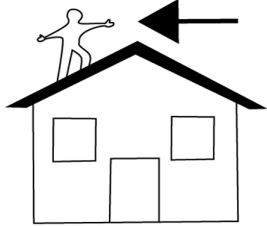
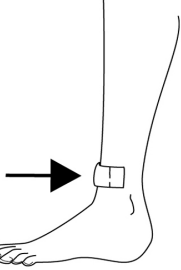
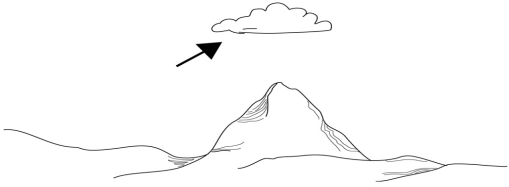
⁶¹ The TRPS pictures below are designed by Bowerman & Pederson (1992) in Max Plank Institute. These pictures are taken from <http://fieldmanuals.mpi.nl/volumes/1992/bowped/>

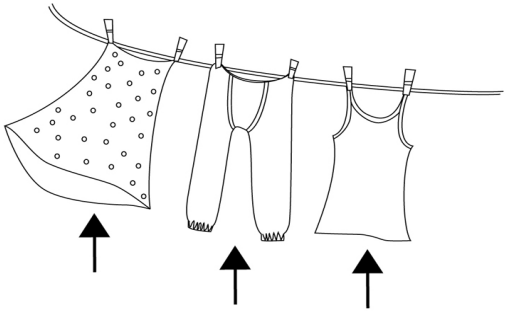
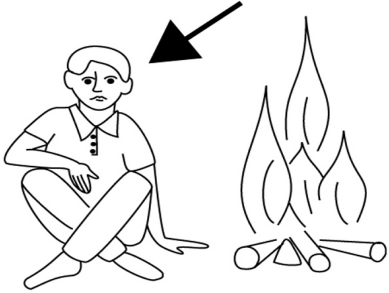
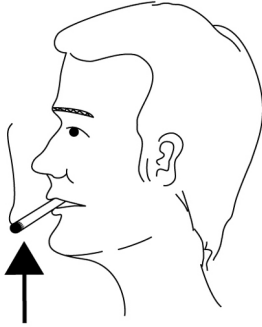
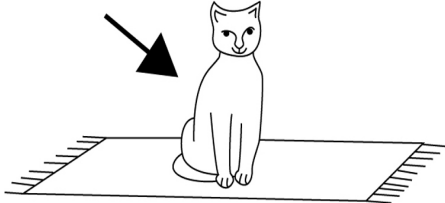
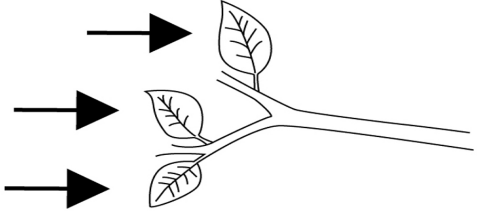
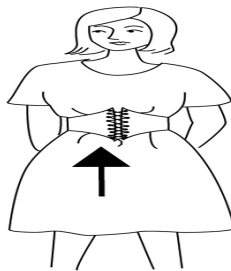
	
<p>(7) Bobola ç'eri-s spider.NOM ceiling.LOC {no-/ets'o}-xe-s. SM-stand-3SG 'The spider is on the ceiling.'</p>	<p>(8) Çit'abi otzude-s book.NOM shelf-LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The book is on the shelf.'</p>
	
<p>(9) Çek'eti xiti-s. jacket.NOM hanger.LOC cela-b-u-n SM-hang-TS.IMPRF-3SG 'The jacket is (hung) on the hanger.'</p>	<p>(10) Matzindi k'iti-s ring.NOM finger.LOC c(e)-u-dz-u-n. SM-APPL.3SG-lie-TS.IMPRF-3SG 'The ring is on the finger.'</p>
	
<p>(11) Feluk'a zuğa-s dolo-ren. boat.NOM sea.LOC SM-is 'The boat is in the sea.'</p>	<p>(12) Mutxa xami-s thing.NOM knife.LOC n-u-s-u-n. SM-APPL.3SG-smear-TS.IMPRF-3SG 'The thing is (smeared) on the knife.'</p>

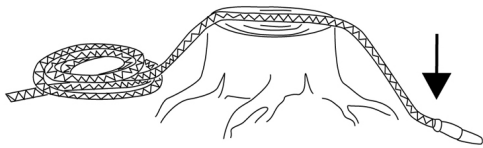
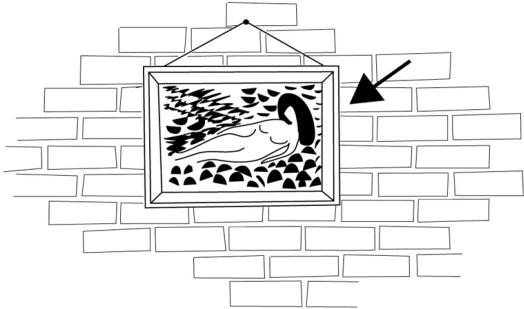
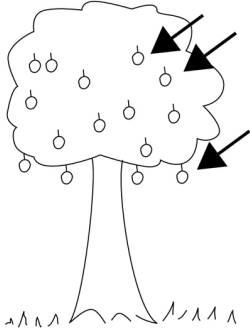
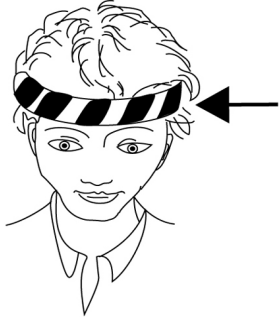
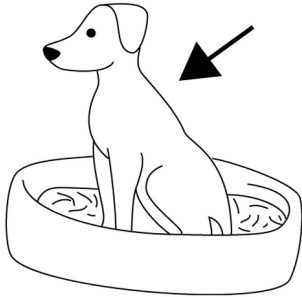
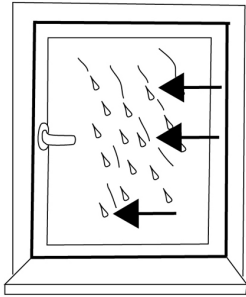
	
<p>(13) Lamba cela-b-u-n. lamp.NOM SM-hang-TS.IMPRF-3SG ‘The lamp is hanging (from the ceiling).’</p>	<p>(14) K’auk’a çanta-s box.NOM bag.LOC dolo-dz-u-n. SM-lie-TS-IMPRF-3SG ‘The box is in the bag.’</p>
	
<p>(15) Ç’it’i oxori-s fence.NOM house.LOC g-u-ğob-u-n. SM-APPL.3SG-fence-TS.IMPRF-3SG ‘The fence is (built) around the house.’</p>	<p>(16) T’op’i k’uli-s ball.NOM chair.LOC ets’o-dz-u-n. SM-lie-TS-IMPRF-3SG ‘The ball is under the chair.’</p>
	
<p>(17) Nca rak’ani-s tree.NOM hill.LOC no-rg-u-n. SM-plant-TS.IMPRF-3SG ‘The tree is (planted) on the hill.’</p>	<p>(18) Mbela cela-b-u-n. dress.NOM SM-hang-TS.IMPRF-3SG ‘The dress is (hung) on the rope.’</p>

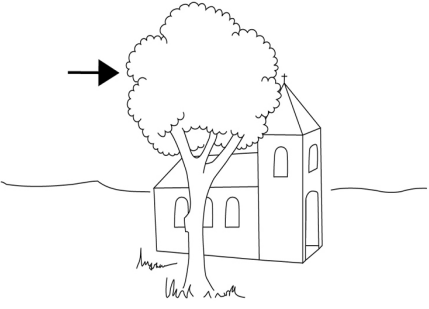
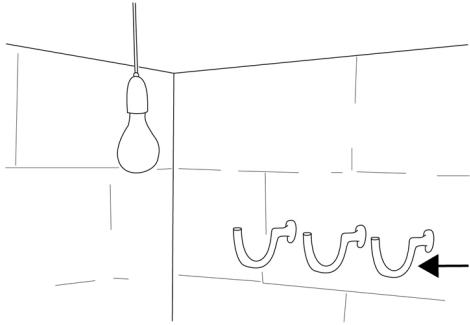

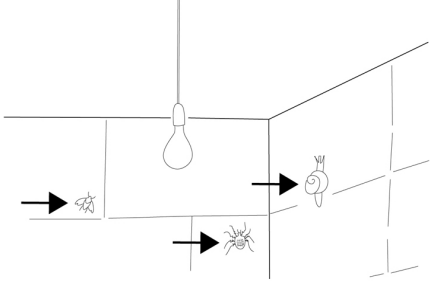
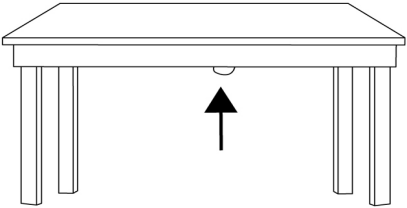
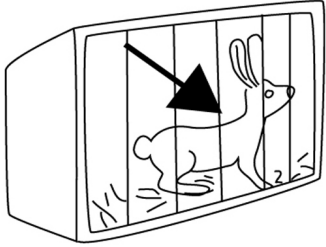
	
<p>(19) Oşk'uri tabaxi-s apple.NOM plate.LOC ce-dz-u-n. SM-lie-TS.IMPRF-3SG 'The apple is on the plate.'</p>	<p>(20) Mbela biga-s cloth.NOM stick.LOC n(o)-u-k'or-u-n. SM-APPL.3SG-wrap-TS.IMPRF-3SG 'The cloth is (wrapped) on the stick.'</p>
	
<p>(21) Modvala quçxe-s shoe.NOM foot.LOC no-dz-u-n. SM-lie-TS.IMPRF-3SG 'The shoe is on the foot.'</p>	<p>(22) Çağeti c(e)-o-ntso-s. paper.NOM SM-PRV-punch-3SG 'The papers are (punched) (on the needle).'</p>
	
<p>(23) Toyç'i nca-s rope.NOM tree.LOC go-k'or-u-n / eyo-dz-u-n. SM-wrap-TS.IMPRF-3SG/SM-lie-TS.IMPRF-3SG 'The rope is (wrapped) around the tree.' 'The rope is (wrapped) on the tree.'</p>	<p>(24) K'uzi mbela-s spoon.NOM cloth.LOC ets'o-dz-u-n. SM-lie-TS.IMPRF-3SG 'The spoon is under the cloth.'</p>

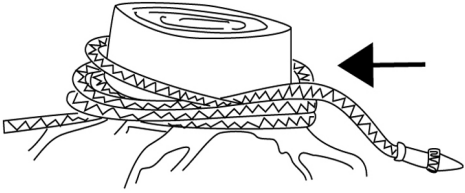
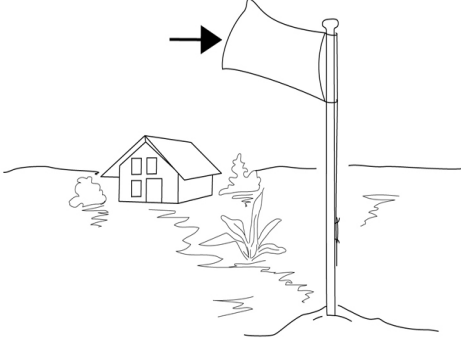
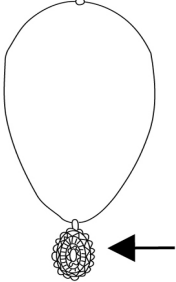
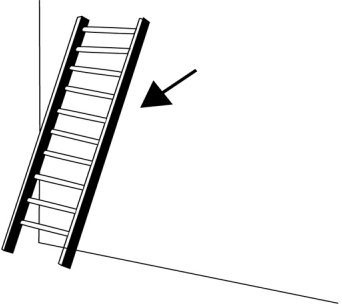
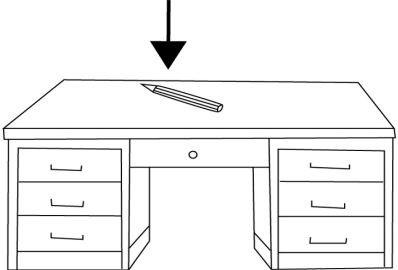
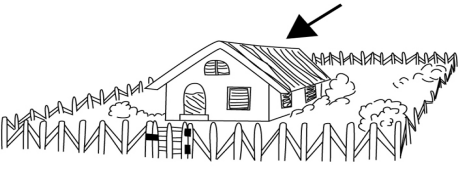
	
<p>(25) Tilifoni qoda-s telephone.NOM wall.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The phone is (hanging) on the wall.'</p>	<p>(26) Fincani k'ok'o-thvats-u-n. cup.NOM two-break-TS.IMPRF-3SG 'The cup is broken into two.'</p>
	
<p>(27) Mtsxuli no-nça-s. pear.NOM SM-grow-3SG 'The pear is growing (on the branch).'</p>	<p>(28) Resimi cenç'areri-s picture.NOM stamp.LOC no-t'amb-u-n. SM-stick-TS.IMPRF-3SG 'The picture is (stuck) on the stamp.'</p>
	
<p>(29) Eyopinaşe sit'oli-s table cloth.NOM table.LOC eyo-mpi-s. SM-spread-3SG 'The table cloth is (spread) on the table.'</p>	<p>(30) İsinci oşkhuri-s arrow.NOM apple.LOC go-dz-u-n. SM-lie-TS.IMPRF-3SG 'The arrow is around the apple.'</p>

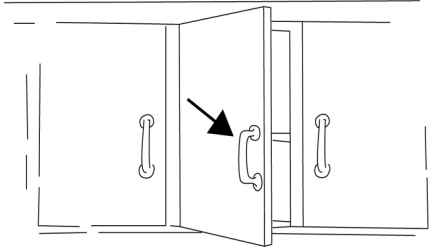
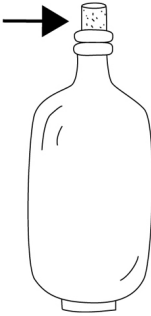
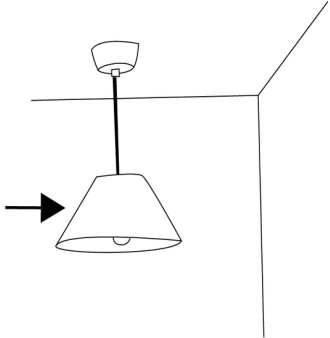
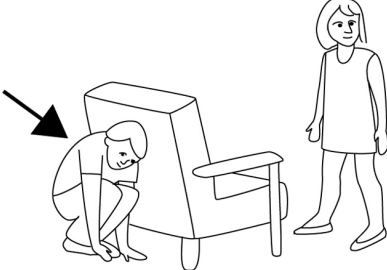
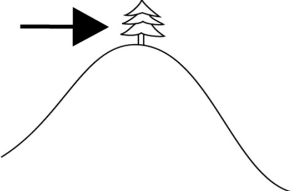
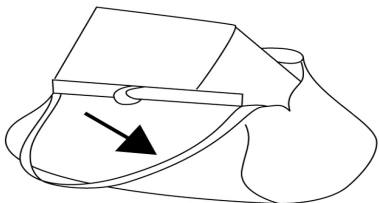
	
<p>(31) K'at'u masa-s cat.NOM table.LOC ets'o-xe-s. SM-stand-3SG 'The cat is under the table.'</p>	<p>(32) Çxombi k'avanozi-s fish.NOM bowl.LOC dolo-ren. SM-is 'The fish is in the bowl.'</p>
	
<p>(33) Mandali toyç'i-s peg .NOM rope.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The peg is (hanging) on the rope.'</p>	<p>(34) K'oç'i otva-s man.NOM roof.LOC eyo-xe-s. SM-stand-3SG 'The man is on the roof.'</p>
	
<p>(35) Muntxa k'uçxe-s thing.NOM leg.LOC c(e)-u-dz-u-n. SM-APPL.3SG-lie-TS.IMPRF-3SG 'The thing is on the foot.'</p>	<p>(36) Mp'ula rak'ani-s eyo-ren. cloud.NOM hill.LOC SM-is 'The cloud is over(on) the hill.'</p>

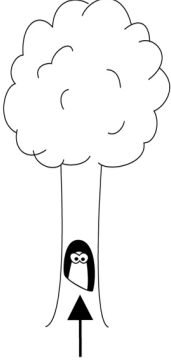

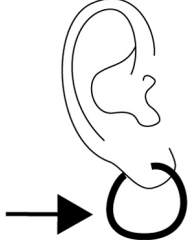
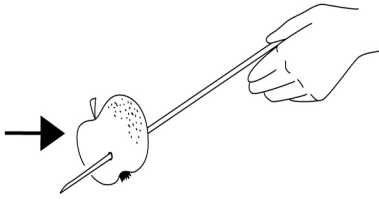
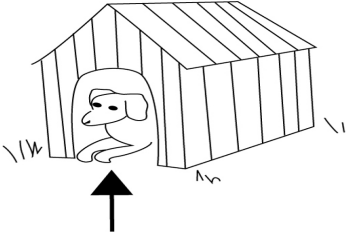
	
<p>(37) Porç-epe cela-b-ur-an. cloth-PL.NOM SM-hang-TS.IMPRF-3SG ‘The clothes are hanging.’</p>	<p>(38) Biç’i daçxuri-s boy.NOM fire.LOC el-u-xe-s. SM-APPL.3SG-stand-3SG ‘The boy is next to the fire.’</p>
	
<p>(39) Tzik’ara k’oç’i-s cigarette.NOM man.LOC mel(a)-u-dz-u-n. SM-APPL.3SG-lie-TS.IMPRF-3SG ‘The cigarette is in the man’s mouth.’</p>	<p>(40) K’at’u xali-s cat.NOM carpet.LOC eyo-xe-s. SM-stand-3SG ‘The cat is on the carpet.’</p>
	
<p>(41) Pavr-epe no-nç’a-s. leaf-PL.NOM SM-grow-3SG ‘The leaves are growing (on the branch).’</p>	<p>(42) K’orse oxorca-s corset.NOM woman.LOC go-k’or-u-n. SM-wrap-TS.IMPRF-3SG ‘The corset is (wrapped) around the woman(’s waist).’</p>

	
<p>(43) Toyç'i nca-s rope.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The rope is on the tree.'</p>	<p>(44) Resimi qoda-s picture.NOM wall.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The picture is hanging on the wall.'</p>
	
<p>(45) Meyve no-nç'a-s. fruit.NOM SM-grow-3SG 'The fruit are growing (on the tree/branches).'</p>	<p>(46) Mbela dudi-s cloth.NOM head.LOC g(o)-u-k'or-u-n. SM-APPL.3SG-wrap-TS.IMPRF-3SG 'The cloth is (wrapped) around the man's head.'</p>
	
<p>(47) Layç'i minderi-s Dog.NOM cushion.LOC ce-xe-s. SM-stand- 3SG 'The dog is on the cushion.'</p>	<p>(48) Mç'ima cami-s rain.NOM glass.LOC dolo-vayor-en. SM-leak-3PL 'The rain drops are leaking on the window.'</p>

	
<p>(49) Nca oxvame-s tree.NOM church.LOC el(a)-u-rg-u-n. SM-APPL.3SG-plant-TS.IMPRF-3SG ‘The tree is (planted) near the church.’</p>	<p>(50) Xit’-epe qoda-s hanger-PL.NOM wall.LOC no-ntso-s. SM-insert-3SG ‘The hangers are (inserted) on the wall.’</p>
	
<p>(51) Zeniši ali-s bead.NOM neck.LOC dolo-b-u-n. SM-hang-TS.IMPRF-3SG ‘The necklace is around (in) the neck.’</p>	<p>(52) Bobola-pe qoda-s. spider.NOM wall.LOC no-xer-an. SM-stand-3PL ‘The spiders are (standing) on the wall.’</p>
	
<p>(53) Mutxa st’oli-s thing.NOM table.LOC ets’o-t’amb-u-n. SM-stick-TS.IMPRF-3SG ‘The thing is (stuck) under the table.’</p>	<p>(54) Mtsxvithura mola-xe-s. rabbit.NOM SM-stand-3SG ‘The rabbit is in (the cage).’</p>







	
<p>(55) Toyç'i nca-s rope.NOM tree.LOC go-k'or-u-n. SM-wrap-TS.IMPRF-3SG 'The rope is (wrapped) around the tree.'</p>	<p>(56) Mbela cela-b-u-n. cloth.NOM SM-hang-TS.IMPRF-3SG 'The cloth is hanging (from the stick).'</p>
	
<p>(57) Zenişi toyç'i-s bead.NOM rope.LOC k'ots'o-b-u-n. SM-hang-TS.IMPRF-3SG 'The bead is (hanging from) in front of the rope.'</p>	<p>(58) Mskala qoda-s ladder.NOM wall.LOC me/no-dg-u-n. SM-stand-TS.IMPRF-3SG 'The ladder is lying against the wall.'</p>
	
<p>(59) Onç'araşe masa-s pencil.NOM table.LOC eyo-dz-u-n. SM-lie-TS.IMPRF.3SG 'The pencil is on the table.'</p>	<p>(60) Oxori ce-dg-u-n. house.NOM SM-stand-TS.IMPRF-3SG 'The house is (standing) in its place.'</p>

	
<p>(61) Xit'i noşoni-şi ek'na-s handle.NOM cupboard-GEN door.LOC n(o)-u-ç'ad-u-n. SM-APPL.3SG-nail-TS.IMPRF-3SG 'The handle is on the door of the cupboard.'</p>	<p>(62) Tzup'i bot'rik'a-s cork.NOM bottle.LOC c(e)-o-ntso-s. SM-PRV-insert-3SG 'The cork is (inserted) in the bottle.'</p>
	
<p>(63) Lamba çheri-s lamp.NOM ceiling.LOC k'ots'o-b-u-n. SM-hang-TS.IMPRF-3SG 'The lamp is (hanging) from the bottom of the ceiling.'</p>	<p>(64) Bere memsofa-s child.NOM armchair.LOC mok'o-xe-s. SM-stand-3SG 'The child is behind the armchair.'</p>
	
<p>(65) Nca rak'ani-s tree.NOM hill.LOC goyo-rg-u-n. SM-plant-TS.IMPRF-3SG 'The tree is (planted) on the hill.'</p>	<p>(66) Xit'i çanta-s handle.NOM bag.LOC el(a)-u-b-u-n. SM-APPL.3SG-hang-TS.IMPRF-3SG 'The handle is (hanging from) near the bag.'</p>







	
<p>(67) Ololi nca-s owl.NOM tree.LOC meşk'a-xe-s. SM-stand-3SG 'The owl is in the tree.'</p>	<p>(68) Nç'ara mbela-s writing.NOM cloth.LOC no-nç'ar-u-n. SM-write-TS.IMPRF-3SG 'The writing is (written) on the t-shirt.'</p>
	
<p>(69) Uci'umbi uci-s earring.NOM ear.LOC dolo-b-u-n. SM-hang-TS.IMPRF-3SG 'The earring is (hanging) on the ear.'</p>	<p>(70) Nçxili oşkhuri-s skewer.NOM apple.LOC go-dz-u-n. SM-lie-TS.IMPRF-3SG 'The skewer is around the apple.'</p>
	
<p>(71) Layçi bogi-s dog.NOM hut.LOC mola-xe-s. SM-stand-3SG 'The dog is in the hut.'</p>	







APPENDIX B

PICTURE SERIES (PS)⁶²

	
<p>(1) Ba7gr: T'op'i (do)-dz-u-n. ball.NOM SM-lie.TS.IMPRF-3SG 'The ball is on the ground.'</p>	<p>(2) Ba8tab: T'op'-epe masa-s ball-PL.NOM table.LOC eyo-dz-ur-an. SM-lie-TS.IMPRF-3PL 'The balls are on the ground.'</p>
	
<p>(3) Ba18tab: T'op'-epe eyo-dz-u-n. ball-PL.NOM SM-lie-TS.IMPRF-3SG 'The balls are (on the table).'</p>	<p>(4) Ba21tab: T'op'i eyo-dz-u-n. ball.NOM SM-lie-TS.IMPRF-3SG 'The ball is on the table.'</p>
	
<p>(5) Ba39tab: T'op'-epe (do)-dz-ur-an. ball-PL.NOM SM-lie-TS.IMPRF-3SG 'The balls are on the ground.'</p>	<p>(6) Ba44tr: T'op'i ara-s ball.NOM branch.LOC SM-lie-TS.IMPRF-3SG 'The ball is on the branch'</p>

⁶² The PS pictures below are designed by Felix et al. (1999) in Max Plank Institute. These pictures are taken from <http://fieldmanuals.mpi.nl/volumes/1999/picture-series-positional-verbs-locative-descriptions/>







	
<p>(7) Ba50rck: T'op'i kva-s ball.NOM rock.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The ball is on the rock.'</p>	<p>(8) Ba56bas: T'op'-epe qalatina-s ball-PL.NOM basket.LOC dolo-bğ-ur-an. SM-scatter-TS.IMPRF-3PL 'The balls are (scattered) in the basket.'</p>
	
<p>(9) Beal1gr: Loby do-bğ-u-n. bean.NOM SM-scatter-TS.IMPRF-3SG 'The beans are (scattered) on the ground.'</p>	<p>(10) Ba25tab: Loby masa-s bean.NOM table.LOC eyo-bğ-u-n. SM-scatter-TS.IMPRF-3SG 'The beans are (scattered) on the table.'</p>
	
<p>(10) Bot10rck: Bot'rika kva-s bottle.NOM rock.LOC eyo-dg-u-n. SM-stand-TS.IMPRF-3SG 'The bottle is (standing) on the rock.'</p>	<p>(12) Bot22bas: Bot'rik'a qalatina-s bottle.NOM basket.LOC dolo-dz-u-n SM-lie-TS.IMPRF-3SG. 'The bottle is in the basket.'</p>







	
<p>(13) Bot26rck: Bot'rik'a kva-s bottle.NOM rock.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The bottle is on the rock.'</p>	<p>(14) Bot28gr: Bot'rik'a (do)-dz-u-n bottle.NOM SM-lie-TS.IMPRF-3SG /do-ntso-s. SM-insert-3SG 'The bottle is (lying/inserted) on the ground'</p>
	
<p>(15) Bot37bas: Bot'rik'a masa-s bottle.NOM table.LOC eyo-dg-u-n. SM-stand-TS.IMPRF-3SG 'The bottle is on the table.'</p>	<p>(16) Bot46tab: Bot'rik'a-pe masa-s bottle-PL.NOM table.LOC eyo-bġ-ur-an. SM-scatter-TS.IMPRF-3PL 'The bottles are on the table.'</p>
	
<p>(17) Bot52tab: Bot'rik'a-pe masa-s bottle.NOM table.LOC c(e)-o-bġ-ur-an. SM-PRV-scatter-TS.IMPRF-3SG 'The bottles are on the table.'</p>	<p>(18) Bot58gr: Bot'rik'a do-ntso-s. bottle.NOM SM-insert-3SG 'The bottle is (inserted) on the ground.'</p>

	
<p>(19) Bot60bas: Bot'rik'a-pe qalati-s bottle-PLNOM basket.LOC dolo-bǵ-u-n. SM-scatter-TS.IMPRF-3SG 'The bottles are in the basket.'</p>	<p>(20) Bot62bas: Bot'rik'a qalati-s bottle.NOM basket.LOC dolo-dǵ-u-n. SM-stand-TS.IMPRF-3SG 'The bottle is in the basket.'</p>
	
<p>(21) Bot67bas: Bot'rik'a qalati-s Bottle.NOM basket.LOC dolo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The bottle is in the basket.'</p>	<p>(22) Cas05bas: Mutxa-pe qalati-s thing-PL.NOM basket.LOC {ce/dolo-} dz-u-n. SM-lie-TS.IMPRF-3SG 'The things are in the basket.'</p>
	
<p>(23) Cas23stu: Mutxa ncas thing.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The thing is on the tree.'</p>	<p>(24) Cas42gr: Mutxa-pe (do)-dz-ur-an. thing-PL.NOM SM-lie-TS.IMPRF-3PL 'The things are on the ground.'</p>







	
<p>(25) Cas47stu: Mutxa-pe nca-s thing-PL.NOM tree.LOC eyo-dz-ur-an. SM-lie-TS.IMPRF-3PL ‘The things are on the tree.’</p>	<p>(26) Cas51gr: Mutxa-pe (do)-dz-ur-an. thing-PL.NOM SM-lie-TS.IMPRF-3SG ‘The things are on the ground.’</p>
	
<p>(27) Cas53bas: Mutxa-pe qalati-s thing-PL.NOM basket.LOC dolo-bğ-ur-an. SM-scatter-TS.IMPRF-3PL ‘The things are in the basket.’</p>	<p>(28) Cas65stu: Mutxa-pe nca-s thing-PL.NOM tree.LOC no-dz-ur-an. SM-lie-TS.IMPRF-3PL ‘The things are lying against the tree.’</p>
	
<p>(29) Cl04tab: Mbela masa-s cloth.NOM table.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The cloth is on the table.’</p>	<p>(30) Cl14tab: Mbela masa-s cloth.NOM table.LOC eyo-rç-u-n. SM-spread-TS.IMPRF-3SG ‘The cloth is on the table.’</p>

	
<p>(31) Cl16bas: Mbela qalati-s cloth.NOM basket.LOC eyo-npi-s. SM-spread-3SG 'The cloth is (spread) on the basket.'</p>	<p>(32) Cl24bas: Mbela qalati-s cloth.NOM basket.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The cloth is on the basket.'</p>
	
<p>(33) Cl30tab: Mbela masa-s cloth.NOM table.LOC eyo-rç-u-n. SM-spread-TS.IMPRF-3SG 'The cloth is on the table.'</p>	<p>(34) Cl34stu: Mbela nca-s cloth.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The cloth is on the tree.'</p>
	
<p>(35) Cl64tr: K'umaşı ara-s cloth.NOM branch.LOC cela-mpi-s. SM-spread-3SG 'The cloth is (spread) on the branch.'</p>	<p>(36) Pot12stu: Dergi nca-s jug.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The jug is on the tree.'</p>

	
<p>(37) Pot29tr: Dergi ara-s jug.NOM brancj.LOC cela-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The jug is on the branch.’</p>	<p>(38) Pot40stu: Dergi nca-s jug.NOM tree.LOC el-u-dz-u-n. SM-APPL.3SG-lie-TS.IMPRF-3SG ‘The jug is near the tree.’</p>
	
<p>(39) Rp03rck: Toyç’i kva-s rope.NOM rock.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The rope is on the tree.’</p>	<p>(40) Rp15rck: Toyç’i kva-s rope.NOM rock.LOC go-k’or-u-n. SM-wrap-TS.IMPRF-3SG ‘The rope is around the rock.’</p>
	
<p>(41) Rp19bas: Toyç’i qalati-s rope.NOM basket.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The rope is on the basket.’</p>	<p>(42) Rp27bas: Toyç’i qalati-s rope.NOM basket.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG ‘The rope is (hanging from) near the basket.’</p>

	
<p>(43) Rp32tr: Toyç'i ara-s rope.NOM branch.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The rope is (hanging from) near the tree.'</p>	<p>(44) Rp36stu: Toyç'i nca-s rope.NOM tree.LOC go-k'or-u-n. SM-wrap-TS.IMPRF-3SG 'The rope is around the tree.'</p>
	
<p>(45) Rp41tab: Toyçhi masa-s rope.NOM table.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The rope is (hanging from) near the table.'</p>	<p>(46) Rp45stu: Toyç'i nca-s rope.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The rope is on the tree.'</p>
	
<p>(47) Rp54stu: Toyç'i nca-s rope.NOM tree.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The rope is on the tree.'</p>	<p>(48) Rp57tr: Toyç'i ara-pe-s rope.NOM branch-PL.LOC cela-mpi-s. SM-spread-3SG 'The rope is (spread) on the branches.'</p>

	
<p>(49) Rp63bas: Toyç'i qalati-s rope.NOM basket.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The rope is on the basket.'</p>	<p>(50) St1tr: Dişk'a nca-s wood.NOM tree.LOC no-dz-u-n. SM-lie-TS.IMPRF-3SG 'The stick is leaning against the tree.'</p>
	
<p>(51) St06tab: Biga masa-s stick.NOM table.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The stick is on the table.'</p>	<p>(52) St9gr: Nca do-rg-u-n. wood.NOM SM-plant-TS.IMPRF-3SG 'The wood is (planted) in the ground.'</p>
	
<p>(53) St13bas: Dişk'a qalati-s wood.NOM basket.LOC no-dz-u-n. SM-lie-TS.IMPRF-3SG 'The wood is leaning against the tree.'</p>	<p>(54) St17tab: Biga masa-s stick.NOM table.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The stick is on the table.'</p>

	
<p>(55) St20gr: Nca do-rg-u-n. wood.NOM SM-plant-TS.IMPRF-3SG ‘The wood is (planted) in the ground.’ .</p>	<p>(56) St31stu: Dişk’a nca-s wood.NOM tree.LOC no-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The wood is leaning against the tree.’</p>
	
<p>(57) St35rck: Biga kva-s stick.NOM rock.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The stick is on the rock.’</p>	<p>(58) St38stu: Biga nca-s stick.NOM tree.LOC c(e)-o-mxa-s. sM-PRV-plug-3SG ‘The stick is (plugged) on the tree.’</p>
	
<p>(59) St43bas: Dişk’a qalati-s wood.NOM basket.LOC eyo-dz-u-n. SM-lie-TS.IMPRF-3SG ‘The wood is on the basket.’</p>	<p>(60) St48tr: Dergi ara-s jug.NOM branch.LOC cela-dg-u-n. SM-stand-TS.IMPRF-3SG ‘The jug is on the branch.’</p>

	
<p>(61) St55tr: Biga nca-s stick.NOM tree.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The stick is (hanging from) near the tree.'</p>	<p>(62) St61stu: Dişk'a nca-s wood.NOM tree.LOC goyo-dz-u-n. SM-lie-TS.IMPRF-3SG 'The wood is on the tree.'</p>
	
<p>(63) St66tr: Dişk'a nca-s wood.NOM branch.LOC cela-dz-u-n. SM-lie-TS.IMPRF-3SG 'The wood is near the tree.'</p>	<p>(64) Stric2bas: Mbela qalati-s cloth.NOM basket.LOC cela-b-u-n. SM-hang-TS.IMPRF-3SG 'The cloth is (hanging from) near the basket.'</p>
	
<p>(65) Stric32rck: Mbela kva-s cloth.NOM rock.LOC no-mpi-s. SM-spread-3SG 'The cloth is near/on the rock.'</p>	<p>(66) Stric49tab: Mbela masa-s cloth.NOM table.LOC cela-mpi-s. SM-spread-3SG 'The cloth is (spread) near/on the table.'</p>



(67) Stric59tr:
 Mbela nca-s
 cloth.NOM tree.LOC
 cela-mpi-s.
 SM-spread-3SG
 'The cloth is (spread) near/on the tree.'



(68) Stric68stu:
 Mbela nca-s
 cloth.NOM tree.LOC
 no-mpi-s.
 SM-spread-3SG
 'The cloth is (spread against) near/on the tree.'

REFERENCES

- Anderson, R.D. (1963). *A Grammar of Laz* (Unpublished PhD thesis). The University of Texas.
- Asbury, A., Gehrke, B. & Hegedus, V. (2007). One size fits all: Prefixes, particles, adpositions and cases as members of the category P. In C. Keskin (Ed.), *UiL OTS Yearbook 2006* (pp. 1-17).
- Babko-Malaya, O. (2003). Perfectivity and prefixation in Russian. *Journal of Slavic Linguistics*, 11(1), 5-36.
- Beavers, J., Levin, B., & Tham, S. (2010). The typology of motion revisited. *Journal of Linguistics*, 46, 331-337.
- Beck, S., & Snyder, W. (2001). Complex predicates and goal PPs: Evidence for a semantic parameter. In *Proceedings of the 25th Annual Boston University Conference on Language Development* (pp. 114-122). Somerville, MA: Cascadilla Press.
- Blom, C. (2005). *Complex predicates in Dutch: Synchrony and diachrony*. Utrecht: LOT.
- Bowerman, M. & Pederson, E. (1992). Topological relations picture series. In S. C. Levinson (Ed.), *Space stimuli kit 1.2: November 1992* (pp. 51-59). Nijmegen: Max Planck Institute for Psycholinguistics. Retrieved from <http://fieldmanuals.mpi.nl/volumes/1992/bowped/>
- Bucaklisi, I. A. & Uzunhasanoğlu, H. (1999). *Lazuri-Turkuli nenapuna-Lazca-Türkçe Sözlük*. İstanbul: Akyüz
- Bucaklisi, I. A., Uzunhasanoğlu, H. & Aleksiva, I. (2007). *Didi Lazuri nenapuna-Büyük Lazca Sözlük*. İstanbul: Chiviyazilari.
- Caha, P. (2009). *The Nanosyntax of Case* (Unpublished PhD thesis). CASTL: University of Tromsø. Retrieved from <http://munin.uit.no/bitstream/handle/10037/2203/thesis.pdf?sequence=1>

- Cappelle, B. (2005). *Particle patterns in English: A comprehensive coverage* (Unpublished PhD thesis). University of Leuven. Retrieved from <https://lirias.kuleuven.be/bitstream/123456789/111279/1/Entire>
- Chomsky, N. (1995). *The Minimalist Program* (Vol. 28). Cambridge, MA: MIT Press.
- Cinque, G. (Ed.). (2002). *Functional structure in DP and IP. The Cartography of Syntactic Structures* (Vol. 1). New York: Oxford University Press.
- Dehe, N. (2015). Particle verbs in Germanic. In P. O. Müller, I. Ohnheiser, S. Olsen & F. Rainer (Eds.), *Word Formation, An International Handbook of the Languages of Europe [HSK series]* (pp. 1466-1497). Berlin: De Gruyter.
- Demirok, Ö. F. (2013). *Agree as a unidirectional operation: Evidence from Laz* (Unpublished master's thesis). Boğaziçi University.
- Den Dikken, M. (1995). *Particles. On the Syntax of Verb-Particle, Triadic, and Causative Constructions*. New York and Oxford: Oxford University Press.
- Di Sciullo, A. M. & Slabakova, R. (2005). Quantification and Aspect. In A. van Hout, H. de Swart & H. Verkuyl (Eds.), *Perspectives on Aspect* (pp. 61-80). Dordrecht: Springer.
- Dixon, R. M. W. (1994). *Ergativity*. Cambridge: Cambridge University Press.
- Dowty, D. R. (1979). *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTO*. Dordrecht: Reidel.
- Elenbaas, M. B. (2007). *The synchronic and diachronic syntax of the English verb-particle combination*. Utrecht: LOT.
- Emgin, B. (2009). *Finiteness and complementation patterns in Pazar Laz* (Unpublished master's thesis). Boğaziçi University.
- Emonds, J. (1972). Evidence that Indirect Object Movement is a Structure-Preserving Rule. *Foundations of Language*, 8, 546-561.

- Fábregas, A. (2007a). The Exhaustive Lexicalisation Principle. *Nordlyd*, 34(2), 165-199.
- Fábregas, A. (2007b). (Axial) parts and wholes. *Nordlyd*, 34(1), 1-32.
- Felix, A., Witte, C. D. & Wilkins, D. (1999). Picture series for positional verbs: Eliciting the verbal component in locative descriptions. In D. Wilkins (Ed.), *Manual for the 1999 Field Season* (pp. 48-54). Nijmegen: Max Planck Institute for Psycholinguistics. Retrieved from <http://fieldmanuals.mpi.nl/volumes/1999/picture-series-positional-verbs-locative-descriptions/>
- Folli, R. & Ramchand, G. (2005). Prepositions and Results in Italian and English: An Analysis from Event Decomposition. In H. Verkuyl, H. De Swart, and A. van Hout (Eds.), *Perspectives on Aspect* (pp. 81-105). Dordrecht: Kluwer Academic Publishers.
- Galambos, A. (2007). Primary and secondary imperfectives in Russian: A cumulativity analysis. Unpublished manuscript. University of Wisconsin-Madison.
- Gehrke, B. (2008). *Ps in motion: On the semantics and syntax of P elements and motion events*. Utrecht: LOT.
- Gürpınar, T. (2000). *The dialect of Pazar Laz and its case system* (Unpublished master's thesis). Boğaziçi University.
- Halle, M. & Marantz, A. (1993). Distributed Morphology and the Pieces of Inflection. In K. Hale and S. J. Keyser (Eds.), *The View From Building 20* (pp. 111-176). Cambridge, MA: MIT Press.
- Haspelmath, M. (1993). *A Grammar of Lezgian* (Vol.9). Berlin: Mouton de Gruyter.
- Higginbotham, J. (1995). *Sense and Syntax*. Oxford: Oxford University Press.
- Higginbotham, J. (2000). Accomplishments. Unpublished manuscript. University of Oxford.

- Holisky, D. A. (1991). Laz. In A. C. Harris (Ed), *The Indigenous languages of the Caucasus: The Kartvelian languages*. Delmar, NY: Caravan Books.
- Istratkova, V. (2004). On multiple prefixation in Bulgarian. *Nordlyd*, 32(2), 301-321.
- Ivanishvili, M. & Soselia, E. (2011). Preverbs in Mingrelian. In N. Bezhanishvili, S. Löbner, K. Schwabe & L. Spada (Eds.), *Logic, language and computation* (pp. 240-248). Berlin: Springer.
- Kayne, R. (1985). Principles of Particle Constructions. In J. Guéron, H. G. Obenauer & J. Y. Pollock (Eds.), *Grammatical Representation* (pp.101-140). Dordrecht: Foris.
- Kojima, G. & Bucaklisi, I. A. (2003). *Lazuri Grameri*. Istanbul: Chiviyazilari.
- Koopman, H. (2000). *The syntax of specifiers and heads*. London: Routledge.
- Kutscher, S. (2007). Why a folder lies in the basket although it is not lying: the semantics and use of German positional verbs with inanimate figures. In A. Felix & S. Levinson (Eds.), *The Typology and Semantics of Locative Predicates: Posturals, Positionals, and Other Beasts*, *Linguistics*, 45(5-6), 983-1028.
- Kutscher, S. (2008). The language of the Laz in Turkey: Contact-induced change or gradual language loss?. *Turkic Languages*, 12(1), 82-102.
- Kutscher, S. (2010). When ‘towards’ means ‘away from’: The case of directional-ablative syncretism in the Ardeşen-variety of Laz (South-Caucasian). *Sprachtypologie und Universalienforschung*, 63(3), 252-271.
- Kutscher, S. (2011). On the expression of spatial relations in Ardesen-Laz. *Linguistic Discovery*, 9(2), 49-77.
- Lacroix, R. (2009). *Description de dialecte Laze d’Arhavi (caucaasique du sud), Turquie, Grammaire et textes* (Unpublished PhD thesis). University Lyon. Retrieved from http://theses.univ-lyon2.fr/documents/lyon2/2009/lacroix_r/pdfAmont/lacroix_r_these.pdf

- Levin, B. (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago, IL: University of Chicago Press.
- McIntyre, A. (2007). Particle verbs and argument structure. *Language and Linguistics Compass*, 1(4), 350-367.
- McIntyre, A. (2015). Particle verb formation. In P. O. Müller, I. Ohnheiser, Susan Olsen & F. Rainer (Eds.), *Word Formation, An International Handbook of the Languages of Europe [HSK series]* (pp. 1085-1091). Berlin: De Gruyter.
- Neeleman, A. (1994). *Complex predicates* (Unpublished PhD thesis). OTS, University of Utrecht. Retrieved from http://www.lotpublications.nl/Documents/111_fulltext.pdf
- Öztürk, B. (2010). Subjects in Pazar and Ardeseni Laz. *Dilbilim araştırmaları* 1, 33-50.
- Öztürk, B. (2013). Low, high and higher applicatives: Evidence from Pazar Laz. In V. Camacho-Taboada, A. L. Jimenez-Fernandez, J. Martin-Gozaalez & M. Reyes-Tejedor (Eds.), *Information structure and agreement* (pp. 275-296). Amsterdam: John Benjamins.
- Öztürk, B. & Pöchtrager, M. (Eds.). (2011). *Pazar Laz*. Munich: LINCOM: Languages of the World Materials.
- Öztürk, B. & Taylan, E. E. (in press). Omnipresent little vP in Pazar Laz. In R. D'Alessandro, I. Franco & A. Gallego (Eds.), *The Verbal Domain*. Oxford: Oxford University Press.
- Pantcheva, M. B. (2011). *Decomposing Paths: The nanosyntax of directional expressions* (Unpublished PhD thesis). University of Tromsø. Retrieved from <http://ling.auf.net/lingbuzz/001351>
- Ramchand, G. (2004). Time and the event: The semantics of Russian prefixes. *Nordlyd*, 32(2), 323-361.
- Ramchand, G. (2008). *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge University Press.

- Riemsdijk, H. v. (1990). Functional Prepositions. In H. Pinkster & I. Genée (Eds.), *Unity in Diversity* (pp. 229-241). Dordrecht: Foris.
- Romanova, E. (2004). Superlexical vs. lexical prefixes. *Nordlyd*, 32(2), 255-278.
- Romanova, E. (2006). *Constructing perfectivity in Russian* (Unpublished PhD thesis). University of Tromsø. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.122.8732&rep=rep1&type=pdf>
- Sachs, A. E. (2004). *Motion events in Seri: Applying Talmy's typologies* (Unpublished master's thesis). University of North Dakota.
- Schroeder, C. (2008). Adverbial modification and secondary predicates in Turkish: a typological perspective. In C. Schroeder, G. Hentschel & W. Boeder (Eds.), *Secondary Predicates in Eastern European Languages and Beyond* (pp. 339-358). Oldenburg: BIS-Verlag.
- Seiki, A. (2001). *The layered internal structure and the external syntax of PP* (Unpublished PhD thesis). Durham University. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.655.5796&rep=rep1&type=pdf>
- Slobin, D. I. (2004). The many ways to search for a frog: Linguistic typology and the expression of motion events. In S. Strömquist & L. Verhoeven (Eds.), *Relating events in narrative, Typological and contextual perspectives* (pp. 219-57). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Son, M. (2009). Linguistic variation and lexical parameter: The case of directed motion. *University of Pennsylvania Working Papers in Linguistics*, 15(1), 213-222.
- Son, M., & Svenonius, P. (2008). Microparameters of cross-linguistic variation: Directed motion and resultatives. In *Proceedings of the 27th West Coast Conference on Formal Linguistics* (pp. 388-396). Somerville : Cascadilla Press.
- Starke, M. (2009). Nanosyntax: A short primer to a new approach to language. *Nordlyd*, 36(1), 1-6

- Svenonius, P. (1994). *Dependent nexus: Subordinate predication structures in English and the Scandinavian languages* (Unpublished PhD thesis). University of California at Santa Cruz.
- Svenonius, P. (1996). The Verb-Particle Alternation in the Scandinavian Languages. Unpublished manuscript. University of Tromsø.
- Svenonius, P. (2004). Slavic prefixes inside and outside VP. *Nordlyd*, 32(2), 205-253.
- Svenonius, P. (2006). The emergence of axial parts. In P. Svenonius & M. Pantcheva (Eds.), *Tromsø Working Papers on Language & Linguistics*, *Nordlyd*, 33(1), 49-77.
- Svenonius, P. (2010). Spatial P in English. In G. Cinque & L. Rizzi (Eds.), *The Cartography of Syntactic Structure* (Vol. 6). Oxford: Oxford University Press.
- Talmy, L. (1972). *Semantic structures in English and Atsugewi* (Unpublished PhD thesis). University of California at Berkeley.
- Talmy, L. (1985). Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.), *Grammatical categories and the lexicon* (pp.57-149). Cambridge: Cambridge University Press.
- Talmy, L. (1991). Path to realization: A typology of event conflation. In L. A. Sutton, C. Johnson & R. Shields (Eds.), *Papers of the Seventeenth Annual Meeting of the Berkeley Linguistics Society* (pp. 480-520). Berkeley: Berkeley Linguistics Society.
- Talmy, L. (2000a). *Toward a cognitive semantics: Concept structuring systems* (Vol. 1). Cambridge: MIT Press.
- Talmy, L. (2000b). *Toward a cognitive semantics: Typology and process in concept structuring* (Vol. 2). Cambridge: MIT Press.
- Taylan, E. E. & Öztürk, B. (2014). Transitivity in Pazar Laz. *Acta Linguistica Hungarica*, 61, 271-296.

- Tenny, C. (2000). Core events and adverbial modification. In C. Tenny & J. Pustejovsky (Eds.), *Events as grammatical objects: The converging perspectives of lexical semantics and syntax* (pp. 284-329). Stanford, California: CSLI Publications.
- Toivonen, I. (2001). The phrase-structure of non-projecting words (Unpublished PhD thesis). Stanford University. Retrieved from <http://http-server.carleton.ca/~toivonen/pdf/toivonen-thesis.pdf>
- Zeller, J. (2001). *Particle verbs and local domains*. Amsterdam, Philadelphia: John Benjamins.
- Zubizarreta, M. L. & Oh, E. (2007). *On the Syntactic Composition of Manner and Motion*. Cambridge, MA: MIT Press.