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CASES DENOTING PATH IN KOMI: SEMANTIC, DIALECTOLOGICAL AND HISTORICAL PERSPECTIVES

Abstract. This article examines the functions and use of Komi-Zyrian prolative cases. The theoretical background is rooted in cognitive linguistics, and the use of these cases in written Komi is studied with the methods of corpus linguistics. Our analysis shows that the two prolative cases have different distributions and functions, but there are also dialectal and grammatical factors that condition their use. Furthermore, we show that there are parallels between the distribution of these forms in different Permic languages and dialects. We contextualise these findings within Permic dialectology, and provide an analysis of how these forms are related and how they have developed in specific Komi subvarieties.

Keywords: Komi, morphology.

1. Introduction

In Komi-Zyrian, as is typical for Uralic languages, there is a rich system of spatial cases. Typically, there are also semantically very similar cases with partially overlapping functions (i.e. illative and lative in Erzya; see Erkkilä 2019). However, closely related cases usually also differ in some respects. Komi has two cases, traditionally called prolative and transitive, that primarily denote path (Bartens 2000 : 107; Современный коми язык 1955 : 145). They have been described as synonymous variants of the same case (Федюнёва, Некрасова, Лудыкова, Цыпанов, Попова 2000 : 17,60; Бубрих 1949: 53), although Bartens (2000 : 107) has suggested that there is a difference in what kind of path they denote: prolative expresses an oblong path, whereas transitive denotes a path of any shape. This difference was originally suggested by Lakó (1950), whose analysis found that transitives are more spatially restricted.

In Komi-Zyrian grammars, prolative and transitive are considered forms of one case, often marked with the numbers 1 and 2 (Федюнёва, Некрасова, Лудыкова, Цыпанов, Попова 2000 : 89). This practice has also been followed by other researchers (see i.e. Kuznetsov 2012 : 374). However, in this paper we opt to use the labels *prolative* and *transitive*, because the problem with calling the cases prolative 1 and 2 could suggest that they are allomorphs of one case, which, as we will argue, they are not. The writers acknowledge

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that the label *transitive* is not very well suited as a name for a case because of its syntactic connotations, but in lieu of a better term that would have been used in Komi studies, it is used here. The case markers discussed here are marked with the suffixes *-ed* and *-ti*, respectively. Also in the recent comparative Komi-Zyrian dialect description (Попова, Сажина 2014 : 122) the variants *-ed*, *-ed* and *-ti* are presented as dialectal allomorphs of the same case, which they call transitive. This analysis has a long history in Komi grammaticography, since Lytkin (Современный коми язык 1955 : 145) also analyses that these two elements are usually interchangeable and represent allomorphs of one case. There has, however, not been consensus on this matter, and Vászolyi (1968 : 64) concluded that these must be considered independent cases in contemporary Zyrian.

A different picture already emerges when we look at the closely related Komi-Permyak language, where these forms have a clearer division of labour. In Komi-Permyak grammar, the corresponding suffix *-et* is presented as the only PATH-coding case in the language (КОМИ-ПЕРМЯЦКИЙ ЯЗЫК 1962 : 192–193), although the variant *-ti* is also present at least in adpositions and adverbs (КОМИ-ПЕРМЯЦКИЙ ЯЗЫК 1962 : 304). From this point of view, the presence of two PATH-coding cases in the nominal paradigm is essentially a Komi-Zyrian (henceforth Komi) problem. The objective of this study is to investigate the parameters behind this variation in PATH coding in Komi.

We look at the features of the landmark (e.g. shape, functional dimensions) and the semantics of the verb to determine what role they play in the choice between prolativ and transitive. The hypothesis is that either the landmark features, the verb semantics or both contribute to the variation. We also investigate the distributional properties of these case markers against corpus data, examining their frequencies in connection with different grammatical categories. This question is motivated by the presence of various distributional restrictions in closely related Komi varieties, including both Permyak and Zyrian dialects. The theoretical background is examined thoroughly in Section 2. In the analysis, we make use of two concepts from cognitive linguistics, namely *encyclopedic knowledge* and *conceptualization*. Encyclopedic knowledge means that when used, a certain linguistic element activates all the knowledge the speaker has of said element, including, but not limited to, usual contexts, and speakers' own former experiences of using the element. This also applies to inflectional elements (Langacker 1991 : 3–4; Tyler, Evans 2003 : 14–18). Conceptualization refers to the way the speaker perceives the described situation and what linguistic means they use to describe it (Langacker 2008 : 30–33). Our work continues from earlier cognitive linguistic studies of the Komi case system, especially that of Кузнецов 2012. The primary difference is our wider focus on just these two forms, and the use of one specific corpus. We also root our work in a wider Permic dialectological context.

The study uses a written Komi corpus from Fenno-Ugrica collection (<https://fennougrica.kansalliskirjasto.fi>). A set of 62 books that are in public domain and have been proofread were collected into one written Komi corpus that is openly available.¹ The same materials are also available in other sources, but by tying our study to a specific version of these texts, we can ensure the replicability of our results. The analysis is corpus-based and aims to explain the phenomena under investigation by evaluating all relevant instances in

¹ <https://langdoc.github.io/written-komi-corpus-fennougrica>.

their naturally occurring contexts. The corpus of annotated sentences with *via*-cases is also published openly in Zenodo (Partanen, Erkkilä 2021), with links to the original corpus included on the accompanying website.² These texts originate primarily from the 1920s and 1930s, and they are in many ways similar to the sources of Vászolyi (1968 : 62–63) used in his earlier quantitative examination of the distribution of prolativ and transitive. We do not accompany our dataset with materials from other genres, but instead attempt to use one uniform corpus. Thereby a more exact study of this variation with respect to social and geographic variables remains to be done, although Partanen and Erkkilä (2020) already took the first steps towards such an investigation.

Via-cases in Komi have remained an active topic of research. A recent study by Nekrasova (Некрасова 2019) also analysed the prolativ variation in Komi with corpus-based methods. In this study the National Komi Corpus was used to find examples of different prototypically prolativ and transitive word forms. The analysis showed that the prolativ was the preferred variant for paths and routes, whereas with wider scenes the transitive became more common, although not dominant. The study points out that more research is needed on the use of the transitive (Некрасова 2019 : 60), and we continue the investigation into this topic using a different type of corpus and basing our analysis on cognitive linguistics. Instead of selecting individual word forms, we analyse all instances of prolatives and transitives in an entire corpus and take into account their wider context in the phrase, including the semantics of the verbs and whether or not the use is adpositional.

2. Theoretical basis of the semantic description of spatial cases

In this section, we will examine the semantics of the Komi *via*-cases from a cognitive linguistics point of view. When examining the *via*-cases of Komi, one must take into account the senses³ of prolativ and transitive (cf. Tyler, Evans 2003 : 42–45; Shakhova, Tyler 2010 : 267–278). This gives an idea of what can be expressed with each *via*-case. By comparing the senses of the *via*-cases, one can see whether the cases are used to express the same or different senses. There are two possible outcomes:

1. The prolativ and the transitive are used to express different senses.
2. The prolativ and transitive are used to express wholly or partially the same senses.

In situation 1, the difference between prolativ and transitive is clear as they express different senses. In situation 2, however, one has to look more closely at the senses that are common to both cases and determine whether there is some other kind of variation in the data that would explain the choice of case when conveying the same sense. According to the earlier research literature, it can be seen that the distribution of prolativ and transitive in Komi represents situation 2 (e.g. Федюнёва, Некрасова, Лудыкова, Цыпанов, Попова 2000; Bartens 2000 : 107; Некрасова 2019).

Like any language element, the *via*-cases in Komi can be described as a category of interrelated senses. This kind of category is called a radial category

² <https://github.com/nikopartanen/komi-path-dataset>.

³ In this study, following Tyler and Evans (2003), the term *sense* is used when referring to the semantic content that a case contributes to the sentence. The term corresponds roughly to that of function.

(Lewandowska-Tomaszczyk 2007 : 147–149). When a case is described as a radial category, different kinds of connections are drawn between its various senses. Such connections include those between the central sense and the senses created by extension from it, which often also represent the synchronic equivalents of the diachronic developments, and the similarity relations conceived between different senses and/or contextual variants. Both types of connections create cohesion within the category. Cohesion is a hallmark of a linguistic category. If senses of two formally different elements show cohesion in their senses, they can be analysed as allomorphs of one morphological category. However, if two linguistic elements do not show cohesion, they are best analysed as separate morphs. In other words, if different senses of prolativ and transitive show cohesion intramorphemically but not intermorphemically, they can be analysed as cases in their own right.

For each sense, one must define a proto-scene,⁴ which is a kind of a skeleton of the sense. The proto-scene contains information about what kind of trajector, landmark and action are possible in the sense, and what the relation is between trajector and landmark (Tyler, Evans 2003 : 51–53). Every realised utterance in a language is always an elaboration of some proto-scene. Elaboration is full if the utterance meets all the criteria outlined in the proto-scene. Elaboration may also be partial if not all the criteria in the proto-scene are met, but the utterance is close enough to the proto-scene for the language user to perceive the similarity between the utterance and the intended proto-scene (cf. Tyler, Evans 2003 : 51–53).

Proto-scenes and (at the same time) senses are distinguished by a so-called functional element. The functional element may be, for example, the shape or the typical usage of a landmark object, or the type of action expressed by the predicate (Tyler, Evans 2003 : 50–51). In addition to actual senses, cases can have contextual variants of senses. These contextual variants have the same functional element, but they occur in different kinds of contexts compared to other occurrences of the same sense (Tyler, Evans 2003 : 42–45).

When considering the senses of cases from a semantic point of view, the (lexical) content of the other elements of the utterance must also be considered (Sinha, Kuteva 1995; Zlatev 2003). This is because cases themselves are fairly schematic elements of language (see, for example, Janda 2007 : 636–637) that need more specific language elements (i.e. lexical words) to complement them. This is even reflected in the fact that cases are bound morphemes that cannot occur without a head word. The most important language elements that must be considered when describing the senses of cases are the head word of the case (the referent of the landmark) and the predicate of the sentence. The referent of the trajector may also be relevant. The analysis of a sufficiently large number of these senses enables us to generalise and abstract, firstly, the proto-scenes of the senses and, secondly, the functional elements of these proto-scenes. The proto-scenes of the senses are abstracted by looking at which properties of the landmark, predicate and/or trajector often occur together. The functional element, on the other hand, is abstracted from the proto-scenes by finding out what is the smallest modification in the semantics of an utterance that can change the perceivance of one proto-scene into another (Shakhova, Tyler 2010 : 270). Not all of the

⁴The term *proto-scene* is used in Tyler, Evans 2003. It roughly corresponds to the term *prototype*.

above-mentioned properties of language elements always matter. Instead, it may be that, for example, only the typical use of the referent of landmark is relevant for the sense, and the predicate and trajector could have any kind of properties. However, since spatial cases are always connected to a landmark, it must be assumed that the properties of the referent of the landmark are always relevant for their sense (cf. Feist 2010 : 95–97). It is worth noting that senses are linguistic categories like any other linguistic element. This means that the structure of a sense can also be conceptualised as a radial structure with more and less prototypical members. In the case of a sense, the members of the category are the actual utterances where the sense is attested. Because prototypicality plays a role in the structure of the senses, it is expected that not all instances of the sense elaborate the proto-scene of a sense completely. Some utterances can be very non-prototypical instances of some sense and therefore come closer to some other sense. These kinds of non-prototypical uses add cohesion to the category on a higher level, in this case to the spatial case. In the next two sections we mainly deal with the prototypical instances of senses, i.e. the central members of the sense categories. Because of this, a certain amount of variation that belongs to the less prototypical members of senses can be attested in Komi, but is not dealt with here. This is because it does not exactly fit the scope of the paper. A dedicated study of the magnitude and quality of variation within the senses will be left for future research.

2.1. Senses of the prolicative

The senses of prolicative found in our corpus data are PATH, OPENING, PLACE, and POINT OF INTERACTION. The senses found in our data can be separated by different functional elements. PATH indicates the route of the trajector's movement, as can be seen in Example 1. In the example, the landmark *sen* 'vein' indicates the route of the trajector (*vir* 'blood'). The route is elongated, which can be deduced from encyclopaedic knowledge (Langacker 2008 : 36–43), and this property of the landmark (i.e. elongated route) serves as the functional element of the PATH sense. From Example 1 and similar examples, one can generalise the proto-scene of PATH, which includes the route of the trajector and its movement along the elongated landmark, in this case a vein.

- (1) Мӧд сӧнӧдыс кагасянь мамыслы мунӧ мисьтӧм, съӧд вир (1926; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67355>)

məd sən-əd-ɨs kaga-šań mam-ɨs-lɨ
other vein-PROL-3SG child-EGR mother-3SG-DAT

mun-ɨ mištəm, šəd vir
go-PRS.3SG ugly black blood

'Through another vein from the child to the mother goes unclean, black blood'

In rare instances, the PATH sense of the Komi prolicative expresses a contextual variant where the focus is on the endpoint of the route of the trajector. This contextual variant cannot be considered a separate sense, since its functional element is the same as in the (unrestricted) PATH sense. Example 2 shows this contextual variant, TARGET PATH.

- (2) Сөмын пöраын кө босътчан, нуан висьсысьöс больничаö, а он кыскав «тöдысьяс», велöдчытöм бурдöдчысьяс ордöд, — верман (1926; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67305>)

semjn pera-yn ke boš-čč-an, nu-an višjś-ęs bol'niča-g,
 only time-INST if take-REFL-PRS.2SG take-PRS.2SG sick-ACC hospital-ILL,
a on kjskav «tędjś-jas», velęčj-tęm burdęčjś-jas
 but NEG.PRS.2SG pull.CNG wiseman-PL, study-CAR healer-PL
ord-ęd, — verma-n
 at-PROL — can-PRS.2SG

'You can (heal this disease) only when you take the sick (person) to the hospital in a timely manner, and do not bring them to uneducated healers'

Another sense of the prolocative in Komi is PLACE. In this sense, the landmark is construed as a functionally two- or three-dimensional area, and the movement of the trajector is confined within the boundaries of the landmark. This does not mean that the movement could not extend outside the landmark, just that in the situation under discussion, possible movement outside the landmark is not relevant. Unlike in the PATH sense, where the movement expressed by the predicate is linear, has a direction and happens along the landmark, the type of movement in the PLACE sense is not so restricted.

The proto-scene of the PLACE sense has a functionally two- or three dimensional landmark, and the predicate expresses movement. There are no apparent restrictions on the type of movement (linear, back and forth, circular, etc.), but it must be understood as happening inside the boundaries of the landmark. The functional element of the sense is the dimensionality of the landmark (functionally two- or three-dimensional), which contrasts with the functionally one-dimensional and elongated landmark of the PATH sense. The function called STAGE (*цена*) by Кузнецов (2012 : 136–138) is essentially the same as the sense we call PLACE. Examples of both two- and three-dimensional landmarks are presented in Examples 3 and 4.

- (3) Оз ков лэдзны найöс кыскасьны няйт джодждöд (1927; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87440>)

oz kov lež-nj naj-ęs kjskaś-nj njajt žož-ęd
 NEG.PRS.3SG need.CNG let-INF 3PL-ACC.PX.3SG drag.oneself-INF dirt floor-PROL
 'There is no need to let them drag each other along the dirty floor'

- (4) небыд муöд кокныда ва ветлöдлö (1925; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67321>)

nebjd mu-ęd koknjda va vetlędl-ę
 soft earth-PROL easily water.NOM move.around-PRS.3SG
 'Water moves easily through the soft soil'

In Example 3, the landmark is *žož* 'floor', which is two dimensional, so it does fulfil the proto-scene's requirements for the landmark completely. In addition, the predicate in Example 3, *kjskaśnj* 'drag oneself', expresses motion that is ambiguous with regard to linearity. What is important here is that the movement happens completely within the landmark. Because of these properties, Example 3 is a full elaboration of PLACE.

In Example 4, the landmark is *mu* 'earth, soil', which can be conceptualised as a three-dimensional space. In this example, it expresses the medium along or through which the trajector moves. As in Example 3, the predicate *vetlędljnj* 'move around' in Example 4 expresses non-linear movement.

As the landmark can be conceptualised as a three-dimensional space and the predicate expresses non-linear movement, the prolicative in Example 4 elaborates the proto-scene of the PLACE sense fully.

The TARGET PATH contextual variant has a connection to another sense of the prolicative, namely, POINT OF INTERACTION. One key element of the proto-scene of POINT OF INTERACTION is the endpoint of directed action. It is possible that the POINT OF INTERACTION sense has evolved from the contextual variant of TARGET PATH, but since it is quite rare in Komi, other explanations should also be considered. For example, the PLACE sense could have been reinterpreted so that instead of movement, any action in a restricted area would satisfy the requirements set for the verb by the proto-scene. What is certain, however, is that the evident similarities between TARGET PATH and POINT OF INTERACTION, especially focusing on the endpoint of the action, reinforce the unity of the prolicative as a category. Kuznetsov has proposed that POINT OF INTERACTION, his APPLICATION POINT function (*точка приложения*), could be an extension of the function he calls PASSAGEWAY. We find this less plausible than our explanation, because POINT OF INTERACTION describes situations where the endpoint or result of an action is in focus. In the PASSAGEWAY function, this is not the case (Кузнецов 2012 : 138–139). The POINT OF INTERACTION sense is illustrated in Example 5.

(5) колö [---] пыркнитны заёдыс кутёмөн (1931; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87342>)

kol-e *pyrkñit-nj* *za-əd-ıs* *kutem-en*
must-PRS.3SG shake-INF stalk-PROL-PX.3SG grasping-INST

'It must be [---] shaken by grasping the stalk'

Example 5 shows that in the POINT OF INTERACTION sense, the landmark expresses the point (*za* 'stalk') of its referent onto which the trajector (unspecified third person) grabs. In addition, the proto-scene of the POINT OF INTERACTION sense includes a verb that expresses grabbing. In Example 5, this verb appears as a gerund *kutemen* 'grasping'. The functional element of the POINT OF INTERACTION sense is the endpoint or situation of the action where the trajector and the landmark are in contact.

The next sense of the prolicative is OPENING, which expresses the route of the trajector through some two-dimensional referent. The OPENING sense has two contextual variants that differ in their force dynamic properties (Talmy 2000 : 406–470). Kuznetsov calls this sense PASSAGEWAY (*проход*) (Кузнецов 2012 : 135–136). The proto-scene of the OPENING sense involves the unrestricted route of the trajector, as well as a landmark that is two-dimensional and enables or permits the movement of the trajector. The functional element of the sense is the shape (or the function) of the landmark, because it differentiates the PATH and OPENING senses from one another. In the first contextual variant, the landmark enables the movement of the trajector and as such has a positive force dynamic value (Talmy 2000 : 422–425). This contextual variant is shown in Example 6.

(6) Сы вöсна найö вермöны пырны морт пытшкö вомöдыс (1927; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67290>)

sj vesna *naje verm-enj* *pyr-nj* *mort* *pyčk-e* *vom-əd-ıs*
it because.of it.PL can-PRS.3PL enter-INF human inside-ILL mouth-PROL-PX.3SG

'Because of that they can enter a person through the mouth'

The second contextual variant of OPENING has neutral or negative force dynamic value. That is, the landmark either does not enable or even tries to hinder the movement of the trajector. One such case is shown in Example 7. In this example, the landmark is *ętar pom* 'end (of the shadow)' and the trajector is *tęliš* 'moon'. The landmark can be conceived as a two-dimensional object, which does not especially enable the movement of the trajector. For an example of a prolicative in a hindering force dynamic context (see Кузнецов 2012 : 136).

(7) Оз муыслөн вуджөрыс кай төлысь вылас, а төлысьыс прөйдитө вуджөр пырыс, пырө өтар помодыс (1928. <http://fennougrica.kansalliskirjasto.fi/handle/10024/67379>)

oz mu-įs-lęn vuęęr-įs kaj tęliš vįl-as,
 NEG.PRS.3SG earth-PX.3SG-GEN shadow-PX.3SG rise.CNG moon.NOM rise.CNG
a tęliš-įs prędit-ę vuęęr pįr-įs,
 but moon-PX.3SG go.through-PRS.3SG shadow.NOM through-PX.3SG
pįr-ę ętar pom-ęd-įs
 enter-PRS.3SG this.side end-PROL-PX.3SG

'The shadow of the Earth does not rise above the Moon, but the Moon goes through the shadow and comes out on this side'

Both Example 6 and Example 7 elaborate the proto-scene of OPENING, as they both have a two-dimensional landmark that enables or permits the movement of the trajector. Both of these examples express the OPENING sense, as they have the same functional element, but they must be seen as different contextual variants, as they differ in their force dynamic properties. This is an important distinction, because enabling and hindering movement is a property of objects to which humans pay attention in their everyday lives.

In the intersection between the contextual variants of PATH, TARGET PATH and OPENING, there are cases where the sense of the prolicative can be conceived on one hand as a PATH with the focus at the endpoint of the action, or on the other hand as an OPENING with the focus on enabling the movement of the trajector. In Example 8, the landmark *voęalanin* 'vagina' indicates the route of movement of the trajector.

(8) Кагаыд чужигас петө војаланинөд (1926; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67355>)

kaga-įd čuę-įgas pet-ę voęalanin-ęd
 child-PX.2SG born-CVB.SIM.PX.3SG exit-PRS.3SG vagina-PROL

'When born, the baby comes out through the vagina'

The utterance in Example 8 is possibly ambiguous as to whether it is an example of PATH or OPENING, because although the vagina is a tube through which the trajector can move, it is also possible to conceptualise it as a hole in the side of a CONTAINER. This is because only the endpoint of the vagina, which can easily be conceptualised as an OPENING, is usually visible. The interpretation of vagina as an OPENING in this context can also be corroborated by the fact that the predicate in Example 8 *petnį* 'exit' focuses the attention on the endpoint of the movement.

However, a use that appears to be on the border of two senses is fully anticipated by a description that sees categories as prototype-based entities. It is even possible that different speakers perceive different senses in cases such as Example 8. It does not necessarily make sense to classify occurrences

such as Example 8 strictly into one sense category or the other; it is most fruitful to note that cases like these create cohesion between the different senses of the Komi prolative.

All in all, it is clear that the Komi prolative has quite a variety of senses, but all of them can be inferred from the sense of (unrestricted) PATH. In addition, there are many different connections between different senses and contextual variants that create cohesion within the category of prolative.

2.2. Senses of the transitive

In our sample, the transitive has significantly fewer senses than the prolative. The main sense of the transitive in our data is PLACE. The proto-scene of PLACE includes a trajector, an action, and a landmark that is a two- or three-dimensional space. The properties of the trajector and type of action are not defined in the proto-scene, but it is possible to postulate two contextual variants of the sense based on the type of action expressed. One contextual variant appears with verbs of movement, the other with all other verbs. The functional element of the sense is the confinement of the action within the landmark. In other words, the PLACE sense appears only in situations where the action expressed by the verb happens inside the borders of the landmark. The contextual variant with movement is shown in Example 9.

- (9) йӧзыд лэбачъяс моз сынӧдті лэбалӧны саридзъяс (more) сайӧ да сідз
водзӧ (1930; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67335>)
jež-ɨd lebač-jas moz sɨnəd-ti lebal-ɨnɨ sariž-jas
people-FOC bird-NOM.PL like air-TRA fly[FRQ]-PRS.3PL sea-NOM.PL
(more) *saj-ɨ da siž vož-ɨ*
sea.NOM behind-ILL and like_this onward-ILL
'People fly like birds beyond the sea and even farther'

In Example 9, the trajector is *jež* 'people' and the landmark is *sɨnəd* 'air'. The predicate is *lebaɨnɨ* 'fly[FRQ]', which does not explicitly indicate the direction of movement. Instead, it expresses a movement that can change direction and has no particular endpoint. This is the prototypical case of the PLACE sense when the predicate is a verb of movement. Example 9 elaborates the proto-scene completely, as the landmark is three-dimensional and the action happens completely within the landmark. As senses are radial categories with members of different degrees of prototypicality, it is to be expected that this contextual variant would exhibit variation. Two such cases are shown in Example 10 and Example 11.

- (10) А казакъяс турун пӧвстті кыссисны (1940; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67980>)
a kajak-jas turun pɨvst-ti kišš-isnɨ
and Cossack-NOM.PL grass.NOM inside-TRAN crawl-PST1.3PL
'And the Cossacks were crawling in the grass'

In Example 10, the trajector *kajak* 'Cossack' and the landmark is *turun pɨvst* 'inside of hay'. The predicate in the utterance is the verb *kiššɨnɨ* 'crawl', which expresses motion. This motion can be understood as directed, but it is not necessary. In the utterance, the transitive expresses the route of the trajector within the landmark. Example 10 partly elaborates the proto-scene

of PLACE, since the landmark fulfils the requirements set for it, but the action does not explicitly happen inside it. It is important to note that the opposite is also not true, i.e. the movement does not explicitly cross the borders of the landmark. Such cases can be counted as less prototypical instances of PLACE that have some properties in common with PATH, namely the possibility of interpreting the movement as directed.

(11) сэк посни розьястыыс киссьö му (1931; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87342>)

sek posni rožjas-ti-ŷs kišš-ŷ mu
 then fine hole-PL-TRAN-PX.3SG fall-PRS.3SG soil.NOM

'Then the soil falls off through its small holes'

In Example 11, the landmark is *rož* 'hole', which does not meet the requirement of two- or three-dimensionality of the Proto-Scene of PLACE, because the referent of the landmark is a hole in the surface of a CONTAINER. However, in Example 11, the landmark is in the plural, which means it can be conceptualised as a three-dimensional space through which the trajector moves.⁵ Example 11 could probably be analysed as a contextual variant or its own sense, that of OPENING, but there are some considerable differences between prototypical instances of OPENING and Example 11. The most important difference is that the landmark in Example 11 is a multiplex entity (see Talmy 2000 : 48–50), whereas in a prototypical OPENING the landmark is a single entity. Analysing the cases exemplified by Example 11 as elaborating the OPENING sense would lead to a curious situation, as these kinds of examples would not be prototypical instances of OPENING in Komi, which is exemplified by the prolativ above. In essence, one would need to postulate two OPENING senses with different proto-scenes in the language. This line of analysis is entirely possible, but here we opt for the analysis above, because the alternative seems unnecessarily complicated.

The second contextual variant of PLACE is exemplified by Example 12.

(12) Тайö пöжарыс зэв ёна действуйтö жар дырйи, лунын, а войын мукöдлатыс (торъя нин шоч вöраинтi да куш коластьясöд), лысва усьöм понда да посни мусин вылыс понда, ачыс кусö (1932; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67339>)

tajö pežar-ŷs zev jona dejstvujt-ŷ žar dirji, lun-ŷn,
 this wildfire-PX.3SG very strongly happen-3SG.PRS heat during, day-INE,
a voj-ŷn muködla-ti-ŷs (torja nin šoc
 but night-INE elsewhere-TRA-PX.3SG (separately already sparse
verain-ti da kuš kolast-jas-ŷd), lysva uš-ŷm ponda
 forest_areas-TRA and dry clearance-PL-PROL), dew fall-PTCP because
da posni mušin vjl-ŷs ponda, ac-ŷs kus-ŷ
 and small spring top-PX.3SG because, self-PX.3SG go_out.3SG.PRS

'This wildfire burns very strongly during the hot weather, in daytime, but in nighttime sometimes (especially in sparse forest areas and dry openings), due to fallen dew and water springs at top (of the ground), it goes out by itself'

In this example, the landmark is a two-dimensional entity within which the action expressed by the verb takes place. In contrast to the previous

⁵ Kuznetsov has also noted the connection between plural landmarks and PLACE (his SCENE) (Кузнецов 2012 : 138).

examples, the verb in Example 12 does not express movement. The landmark can also be more abstract, as in Example 13 where the landmark is strictly speaking not two- nor three-dimensional. However, a joint could presumably be conceptualised as three-dimensional, as joints usually are somewhat bulgy.

- (13) Сійӧ ӧтлаасянінтыс льясыс вӧрӧны (1929; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67308>)

sije ɔtlaasanin-ti-is li-jas-is ver-eni
3SG connecting_place-TRA-PX.3SG bone-PL-PX.3SG sway-PRS.3PL

'The bones sway in this spot where they connect (to one another)'

As the functional element in both kinds of examples is the same, i.e. the action is confined within the landmark, these examples must be considered contextual variants of one sense rather than two separate senses. The contextual variant exemplified by Example 12 and Example 13 seems to be less common than the contextual variant with a motion verb.

The transitive does have other senses in addition to PLACE. One sense that is quite natural for via-cases is PATH. The proto-scene of PATH includes a trajector, an elongated landmark that enables the action of the trajector, and a predicate expressing directed motion. The functional element is the shape of the landmark, as it separates the PATH sense from PLACE. It is noteworthy that the PATH sense of the transitive is attested almost exclusively in connection with relational nouns. Nominal transitives express this sense exceedingly rarely. This tendency is undoubtedly connected to the fact that the transitive is far more common with relational nouns than with content nouns (see Section 3). An example of the transitive used in the PATH sense is shown in Example 14. When the transitive expresses PATH with content nouns, it usually conveys what could be called a DISTRIBUTED PATH. In this case, the content noun is in the plural and thus conveys a multiplex entity (cf. Example 11 above). An example of DISTRIBUTED PATH is given in Example 15.

- (14) Бур туй вывтӱд вӧлыс вермӧ кыскыны 75 пудӱӧдз (1926; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67317>)

bur tuj vjv-ti-jd vel-js verm-g kjskj-ni 75 pudj-ɛʒ
good road top-TRA-PX.2SG horse-PX.3SG can-3SG.PRS pull-INF 75 pood-TERM

'Along a good road a horse can pull (a load that weighs) up to 75 poods'

- (15) Сӧстӧм сынӧдыс локтӧ пу трубаясті, кодъясӧс сувтӧдалӧма стойла оланін пельӧсьясӧ (1931; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67927>)

system sjned-js lokt-g pu truba-jas-ti, kod-jas-ɛd
clean air-PX.3SG come-3SG.PRS wood pipe-PL-TRA, which-PL-PROL

svt-ɛd-al-ema stojla olanin pel'ɛs-jas-g
stand-CAUS-FRQ-PST2 stall living_place corner-PL-ILL

'Clean air comes through the wooden pipes, which have been set up to stand at the corners of the animal stall'

In Example 14, the landmark is elongated and the verb expresses directed motion, so the example elaborates the proto-scene completely. Example 15 shows a similar situation. The verb expresses directed motion, and the landmark is elongated. However, in Example 15, the landmark consists of multiple elongated entities rather than just one, as in Example 14. Despite this differ-

ence, these two kinds of situations are best analysed as elaborating the same proto-scene and thus expressing the same sense. They are contextual variants that have the same functional element (an elongated landmark that enables the action of the trajector). The difference lies not in the shape of the landmark, but rather in the number of distinct entities that make up the landmark.

The transitive can even be used to express the OPENING sense (in addition to the non-prototypical PLACES discussed above). However, the use of the transitive in this sense is exceedingly rare. The proto-scene is similar to the proto-scene of the OPENING sense of the prolativ, i.e. it includes an unrestricted route of the trajector, as well as a landmark that is two-dimensional and enables or permits the movement of the trajector. The OPENING sense is exemplified by Example 16.

- (16) Войдөр гaг вeськaлaнiнтi вeжөдaс, сэсся висьны, ёнтыны пoндaс (1927;
<http://fennougrica.kansalliskirjasto.fi/handle/10024/67982>)
vojđer gag veśkalanin-ti vež-ęd-as, seśśa viś-nj,
 initially bug access_point-TRA green-CAUS-3SG.FUT, then hurt-INF,
jontj-nj pond-as
 pain-INF start-3SG.FUT
 'First the place from which the bug has entered turns green, then it starts to hurt, be in pain'

Our analysis is complemented by Некрасова (2019), who shows that the transitive is always possible in the same senses as the prolativ. However, in her sample, the transitive was always attested far less frequently than the prolativ in all senses except for PLACE. This study and our analysis together show that the main area of use of the transitive is the PLACE sense, and that other senses of the transitive are more or less exceptions.

2.3. The difference between prolativ and transitive

As noted above, Lakó (1950) and Bartens (2000 : 107) have suggested that the difference between the use of the prolativ and the transitive is that the prolativ expresses movement along an elongated landmark and the transitive along a two- or three-dimensional landmark. A similar difference has been suggested in the Mordvin languages, where there are two spatial GOAL-oriented cases, namely the illative and the lative (Bartens 1999 : 74). Alhoniemi (1985 : 52) states that the illative expresses motion (in)to three-dimensional landmarks, while the lative expresses movement (in)to two-dimensional landmarks. However, Erkkilä (2019) shows that in Erzya, the number of dimensions that the landmark possesses is but one manifestation of a tendency related to the conceptualization of the landmark. The following remarks consider only the written standard; dialects are discussed in Section 4 and by Partanen and Erkkilä (2020).

In languages, there are different parameters that affect the coding of spatial relations (Zlatev 2007 : 337–340), so it is not possible to say straight away that the form of the referent of landmark is not the only factor behind the choice between the Komi via-cases, even when there are more intervening parameters in Erzya. However, some examples show that parameters other than just the dimensionality of the landmark must influence the choice of case. In Examples 17 and 18 (Example 3 above shown here again for convenience),

the landmark is the same object, namely *žož* 'floor'. Nevertheless, they use different cases to indicate the route of the trajector. An anonymous reviewer suggests that the via-cases are used as synonyms here. It is true that they might be considered synonyms in the sense that they are different forms expressing the same concept-function (Glynn 2014 : 9–15). However, strict synonymy is considered practically non-existent in the cognitive linguistics tradition (e. g. Taylor 2003 : 264–269), and therefore there must be some minor difference in use between these two forms. It is typical that the difference manifests as the use of different forms in different construals (e.g. Langacker 1987 : 138–141; Taylor 2003 : 267–268). As we are exploring what differentiates the two via-cases, we cannot dismiss examples like 17 and 18, where the cases are seemingly used synonymously. Instead, we will try to tease apart the minor differences in the context and semantics of the linguistic elements to shed light on the underlying distinctions in the use of the cases that might influence the variation.

- (17) [---] мый джоджтыыс посньыд картаясин колö тачкалы кокньыда
исковтны (1931; <http://fennougrica.kansalliskirjasto.fi/handle/10024/67927>)

mij žož-ti-is posñjd karta-jas-in kol-ǵ tačka-lij
that floor-TRA-PX.3SG small barn-PL-INE need-PRS.3SG cart-DAT
kokñjda iskovt-nj
easily slide-INF

'[---] that in a small barn the cart must easily slide along the floor'

- (18) Оз ков лэдзны найöс кыскасьны няйт джодждöд (1927; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87440>)

oz kov lež-nj naj-ǵs kjskaś-nj
NEG.PRS.3SG need.CNG let-INF it.PL-ACC.PX.3SG drag.oneself-INF
ñajt žož-ǵd
dirt floor-PROL

'There is no need to let them drag each other along the dirty floor'

The difference between 17 and 18 is in the conceptualisation of the situation. In Example 17, the landmark does not restrict the action of the trajector in any way. Instead it is possible to perform the action in any direction along the landmark. In 18, the situation is a bit different. The semantic verb is *kjskaśnj* 'drag oneself', which is a derivation of *kjskñj* 'drag'. The underived verb expresses a situation where the landmark must follow some undisclosed force. Even if the verb in 18 is a reflexive, and as such does not include an undisclosed force, it is possible to imagine a connection in the minds of the language users between the semantics of the non-derived and derived verb stems. This would mean that the route of the landmark is seen not as a two-dimensional area, but rather as a one-dimensional route following the dragging force, in this case the trajector itself. This would motivate the use of the prolativ in 18 but not in 17.⁶ This analysis should be taken as a hypothesis, and more research on the perception and conception of Komi speakers is needed before it can be verified. However, it does point in the direction that the shape of the landmark must not be the only factor when deciding between prolativ and transitive in coding the route of the trajector. The difference becomes even more evident when we compare Example 18 to Example 19.

⁶ Another possibility is that the via-case is lexically determined by the verb.

(19) Сэсса вирыскöд сөнъясöд разалö туша кузя (1929; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87437>)

sešša vir-įs-keđ sen-jas-ęd razal-ę tuša kuža
 then blood-3SG-COM vein-PL-PROL spread-PRS.3SG body.NOM along
 'Then (the nutrients) spread through the veins all over the body'

In Example 19, the landmark is *sen* 'vein', which is a very prototypical landmark required by the Proto-Scene of the PATH sense of the prolativ. Its referent is elongated and enables the movement of the trajector (*vir* 'blood' in Example 19). However, it also has the property of allowing movement in one direction only, while blocking movement in all other possible directions. The transitive does not have this restriction, as shown in Example 17. At the same time, the landmark in Example 19 does not restrict the movement of the trajector in the secondary landmark *tuša* 'body', as is evident from the semantics of the predicate *razavnj* 'spread', as long as it happens along the veins.

In essence, it appears that one of the parameters according to which the via-case is chosen in Komi has to do with the movement-limiting characteristics of the landmark, i.e. control.⁷ This is not unique in the languages of the world (Vandeloise 2010: 178–180). This is again an aspect of the semantics of the via-cases that strengthens their category-internal cohesion, because the different morphological categories favour landmarks that have different controlling properties. This tendency is especially evident in the one sense that is common to both prolativ and transitive, which shows that while favouring certain kinds of control properties increases category-internal cohesion, it at the same time decreases category-external cohesion by dividing possible conceptualised situations into those that favour the prolativ and those that favour the transitive. The choice of prolativ with elongated landmarks has to do with this tendency: elongated landmarks often limit the movement of the trajector to the longitudinal dimension of the landmark.⁸ This also explains the other senses of the prolativ. In the OPENING sense, the landmark controls the movement of the trajector by enabling passage through the landmark. Similarly, in the POINT OF INTERACTION sense, the defined endpoint of movement, in a sense, controls the movement of the trajector.

3. Corpus-based evaluation

In order to evaluate whether the prolativ and transitive truly are used in the way described in Section 2, we conducted a larger corpus-based analysis. Although there are currently many Komi corpora available, we decided to use a smaller subsection of books in the Fenno-Ugrica collection that have been proofread by FU-Lab in Syktyvkar.⁹ This overlap between these two collections is particularly useful for research, as it has been corrected by native speakers

⁷ An anonymous reviewer noted that in addition to *sen-(jas)-ęd* 'vein-(PL)-PROL' *sen-(jas)-ti* 'vein-(PL)-TRA' is also possible (frequencies in Komicorpora: PROL 569 TRA 54). This does not essentially weaken our argument, as the frequencies show that the use of the prolativ is more entrenched (e. g. Glynn 2014 : 9–15; Langacker 1987 : 59–60) in expressing the PATH sense in situations where control is present. The uses of the transitive can therefore be seen as less prototypical elaborations of the category CONTROLLED PATH, i.e. in contexts where control plays a role in the formation of a route.

⁸ Similarly, the Finnish sentence *Kävelin tietä pitkin* 'I walked along the road' cannot mean that the trajector walks from one side of the road to the other.

⁹ <http://komikyv.org>.

and is also clearly licensed as being in Public Domain. The dataset contains 62 books, representing the fields of agriculture, education, forestry, health, politics, prose and technology. They were all published between 1920 and 1940. This material is all in all 470,000 tokens, but as the prolativ and transitive are relatively rare cases, their total number will naturally be much lower, and the current sample is 750 examples. We believe this contains almost all examples of prolatives and transitives in these texts, as the material has been searched through very robustly using both manual and automatic methods.

Stefanowitsch (2020 : 56) defines corpus linguistics as the investigation of linguistic research questions that have been framed in terms of the conditional distribution of linguistic phenomena in a linguistic corpus. In our study, the linguistic corpus used is the aforementioned subset of the Standard Komi corpus, and our research questions derive from the factors we expect to have influence on the choice of case in Komi, based on the cognitive linguistic analysis in the previous section of our study. We used chi-square tests to evaluate the significance levels of the variations we wanted to examine. This test was selected by the type of the data we had, and the numbers of expected observations that it requires (Stefanowitsch 2020 : 177, 179). When we tested the relationship of the directionality of the predicate and the adpositions, we used randomisation when estimating the p-value, in order to get reliable results even in this examination where we had a smaller number of individual occurrences.

In order to annotate the corpus, the texts were analysed with a morphological analyser developed by Jack Rueter (system first described in Пютер 2000), which was accessed using the Python package UralicNLP (Hämäläinen 2019). Further disambiguation was done with via-case-specific constraint grammar rules that selected the correct analysis for each sentence and disregarded incorrect readings. Finally, the corpus was examined and double-checked with concordance tools to ensure there were no missed examples. Following this procedure, the prolativ and transitive examples in the corpus were extracted and annotated for various features. These are via-case type, landmark features and verb semantics. The via-case type is simply whether the form is prolativ or transitive. Landmark features and verb semantics correspond to the meaning of the head word and the predicate of the sentence, which in Section 2 were considered the most important factors influencing case semantics.

The extracted examples were annotated for various features, among those part of speech and full morphology that is present in each form. This required careful reading of individual examples. Although adverbs are not analysed specifically in this study, as the focus is on spatial constructions, we have still included adverbs in our dataset. To illustrate the annotation process, occurrences of transitive form *vjvti* 'along (ADP); too much (ADV.)' offered particular challenges to extract from the corpus, as the majority of its use cases are adverbial, with the meaning 'over; excessively'. There is also a corresponding prolativ form *vjled* 'across'. Also for adverbially more common transitive form, there are, however, instances where use is clearly adpositional, as in Example 20:

(20) Бурджык видзьяс вывті позьö агасöн шыльöдны (1931; <http://fennougrica.kansalliskirjasto.fi/handle/10024/87420>)

buržjk viž-jas vjv-ti pož-e agas-ɛn šil'ed-nj
better meadow-PL over-TRA be.able-3SG.PRS harrow-INST smooth.out-INF

'One can smooth out (over) better meadows with a harrow'

In our annotation model, nominal and adpositional use are distinguished, which is important, since essentially identical forms function in both roles. Example 21 illustrates the same form used as a noun, in a context ‘to glue along the top layer of the paper’. This shows well how most adpositions in Komi can be used as nouns as well, as they can refer to the concrete places that they designate as ordinary nouns.

(21) Татшӧм клеялӧмыд вӧлі сӧмын вывтӧыс (1932; <http://fennougrica.kansaliskirjasto.fi/handle/10024/67350>)

tačɛm kl'ejal-ɛm-ɨd vɛl-i sɛmjn viv-ti-ɨs
 this.kind.of glue-PTCP-PX.2SG be-3SG.PST only top-TRA-PX.3SG

‘This kind of glueing was only along the top (layer of the paper)’

This treatment results in 745 instances of prolatives and transitives. There are 308 nouns, 222 adpositions and 215 adverbs. As discussed, the adverbs have currently been excluded from the further analysis, which leaves us with 530 observations. The majority of the examples are in the singular, with 446 instances, whereas there are only 84 plural forms. As the corpus is almost half a million tokens large, we can roughly estimate that on average, one sentence in a thousand will contain a spatial expression with the prolative or transitive. This illustrates well the general rarity of these forms.

The entire annotated via-case dataset is published in Zenodo (Partanen, Erkkilä 2021). All examples used in this study correspond to the published examples with their identifiers. Both predicates and via-case forms have been annotated separately, which makes the materials maximally accessible, and we hope the release of our annotated corpus and associated dataset will contribute to further comparative research on spatial case systems in the world’s languages.

3.1. Distribution of prolative and transitive in the text corpus

In Komi all cases can be used with both nouns and adpositions. However, the distributional properties of prolative and transitive in Komi-Permyak makes it worth examining their distribution further. We present in this section the results and analysis of how the forms are distributed in our corpus. In Section 5, we connect these observations to the similar distributions reported in other Permic languages. Table 1 shows that between these two parts of speech, prolatives are clearly preferred with nouns and transitives with adpositions, and follow the description in Section 3.4. There are some lexemes, such as *din* ‘root’ and *uv* ‘under’, that occur only with transitive in our corpus. We analyse these forms here as relational nouns, which can be used either in adpositional constructions or unrestricted nouns, as was illustrated in Example 20. Thereby in our dataset, they are annotated as either nouns or adpositions depending on the context.

However, in the larger Komi corpus, occasional forms with the prolative are also possible. Still, it is clear that transitives are more common with adpositions. This distribution is shown in Table 1. The difference is statistically highly significant (p -value < 0.001). We do not believe that an investigation with another corpus would yield entirely different results, unless the data were taken from a dialect corpus of those dialects where the transitive is reported to be used much more extensively than elsewhere (see Section 4.1).

Table 1

Distribution of cases by part of speech		
	Prolative	Transitive
Noun	219	88
Adposition	38	184

Another distributional correlation can be found with the use of prolative and transitive with singular and plural. The first difference that has to be reported is the general sparsity of plurals in adpositions. They do occur, but are exceedingly rare when compared to the singular occurrences. This distribution is also mentioned in Komi grammar (Федюнёва, Некрасова, Лудыкова, Цыпанов, Попова 2000 : 441), which states that the plural in adpositions is rare and mainly occurs with spatial and temporal adpositions. Our result confirms the rarity of the plural, although only for prolatives and transitives, so it remains to be studied how the distributions vary for other cases.

Table 2

Distribution of part of speech and number		
	Singular	Plural
Noun	232	75
Adposition	213	9

When we look at the distribution of singular and plural prolative and transitives only within nouns, we see that prolatives generally occur much more commonly in the plural than transitives.

Table 3

Distribution of case and number in nouns		
	Singular	Plural
Prolative	156	63
Transitive	76	12

These 12 nouns that occur in our corpus with plural transitives are all rather prototypical examples of OPENING expressions: *rož* 'hole', *truba* 'pipe', and others like this. Two examples are also formed using the nouns *boki* 'side' and *kost* 'middle', which also function often as relational nouns. We cannot say that plural transitives would not be grammatical, but there must be some reasons they are so rare.

The last distributional property that we examined concerned the use of prolatives and transitives in the function of POINT OF INTERACTION. In our corpus, there are 13 examples of this use, and the prolative was used in all of them. This fits well with the analysis of the prolative's senses in Section 2.1. As this is a rare use of already rare cases, an analysis conducted with a relatively narrow corpus may not be the best solution for studying the details of this specific use, and further work through elicitation or with a much larger corpus would probably be recommended if one would like to investigate whether some variation exists and under which conditions. However, this examination already shows that the prolative is dominant in this function, at least in this corpus.

3.2. Semantic variation

As discussed in Section 2, the shape of the landmark is relevant for case marking, because the landmark is the part of the event against which the actions of the trajector are viewed (Zlatev 2007 : 327). For spatial expressions, this plays an even more important role than when describing other relationships, because in a spatial world, the shape of a landmark can have a concrete impact on the actions of the trajector.

We have annotated three types of landmarks whose properties seem to influence case selection: 1) landmarks that indicate a passage, 2) elongated landmarks with one functional dimension, and 3) two- or three-dimensional landmarks. 1) A landmark indicating a passage represents situations where the landmark is a hole in a surface. Typically, this hole also enables or permits action through the surface. 2) Elongated landmarks with one functional dimension represent cases where the landmark is some kind of a route, for example a road or a river. Such landmarks are not really one-dimensional, but in terms of the action (mostly motion) described by the predicate of the sentence, they have only one relevant dimension, known as the functional dimension. In such cases, the landmark is such that it facilitates or even enables the action in the direction of the functional dimension, while at the same time limiting the action in other directions. 3) Two- and three-dimensional landmarks do not restrict the action along them; instead, the activity can take place quite freely within the landmark. In the case of nouns, Komi denotes activity along landmarks in groups 1 and 2 almost exclusively using the prolativ. The main exceptions to this are cases where a relational noun declined in the transitive is used to express PATH, and when the landmark is a multiplex entity. For landmarks in group 3, Komi prefers the transitive, although the prolativ also appears to be quite common. This may also be due to the fact that the prolativ generally appears more frequently with nouns than the transitive. The groups differ with respect to what sense is typical for them: group 1 landmarks are found exclusively with OPENING, group 2 landmarks with PATH, and group 3 mostly with PLACE. Thus, the tendencies are that Komi encodes OPENING and the majority of instances of PATH with the prolativ, whereas PLACE is encoded mostly with the transitive. It is possible that the landmarks in groups 1 and 2 are conceptually closer to each other, since they both limit the action of the trajector more than the landmarks of group 3, and that therefore groups 1 and 2 would mainly prefer the prolativ over the transitive. In addition, the feature of control discussed earlier is common to landmarks of types 1 and 2. This ties them closer together, which is a plausible explanation for why they would be coded the same way.

Table 4

Distribution of landmark features and case			
	Passage	Elongated	Two or three dimensional
Prolative	56	137	48
Transitive	3	75	166

Statistical tests at this distribution also show that the groupings observed here are not arbitrary ($p < 0.001$). The groups that differ most from the others are the two- or three dimensional landmarks, where transitives are much more

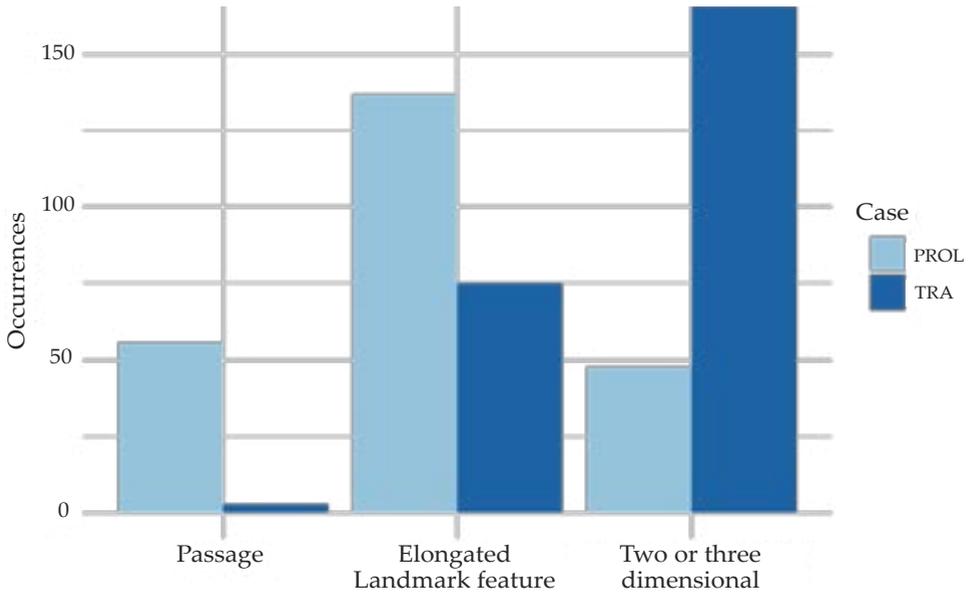


Figure 1. Correlation between landmark features and case.

commonly used, and passages, where the prolativ is strongly preferred. We can conclude that the more constrained the route is, the more dominant the use of the prolativ becomes. Our results further support the distribution reported by Nekrasova (Некрасова 2019 : 56–57). The entities we have analysed as two- or three dimensional appears to be close to the SCENE category she has used. In the next section, we will discuss the directionality of the predicate, which, to our knowledge, has not been previously analysed with respect to the Komi via-cases.

3.3. Directionality of the predicate

Because cases denoting route in several languages express directional movement or other directional activity along or through a landmark, we also investigated whether there is a correlation between such predicates and the use of the prolativ and transitive. The result of this test was negative, meaning that the choice of prolativ or transitive can be said to depend mainly on the shape of the landmark and the resulting variation in the function of the landmark.

In Table 5 we see the numbers of analysed examples arranged by the directionality of the predicate, case and part of speech. In Figure 2, the same information is presented in a plot that shows the percentages by category.

Table 5

Observations of action and motion types by case					
POS	Case	Directed action	Directed motion	Non-directed action	Non-directed motion
Adposition	Prolativ	10	5	2	6
Adposition	Transitive	32	65	9	11
Noun	Prolativ	46	60	8	49
Noun	Transitive	15	19	1	19

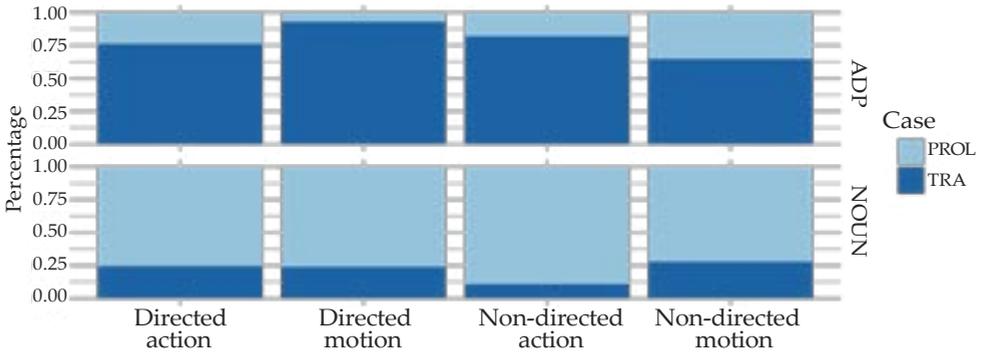


Figure 2. Correlation between directionality of predicate, case and part of speech.

As can be seen in Figure 2, the type of motion does not impact the choice of case with nouns or with adpositions (p-value above 0.05 for variation in nouns; the relation between directionality in adpositions is significant, but there is no conclusive pattern in the data). The main differentiator is still the part of speech. The attachment of cases to different word classes appears to be the strongest factor explaining their distribution. This leaves open the possibility that some other features of the predicate could be connected to the choice of case, but our analysis shows that directed motion is not one of those properties. Instead, we see statistically non-significant variation that is not affected by the directionality of the predicate in any manner, at least when we take into account the general large distributional difference between adpositions and nouns, as we reported above. It can be added that if some effects could be found, they would certainly be within adpositions. The impact of the frequency of different lexical items should also be investigated.

As the directionality of the predicate does not appear to be significant, we will next discuss in more detail the general properties of Komi adpositions. Where applicable, these properties are also verified against the corpus data used in our analysis.

3.4. Path-expressing adpositions

One major difference between the use of prolativ and transitive seems to be connected to their distributional properties. The prolativ is used more frequently in nominal inflections, whereas the transitive is used more frequently with adpositions. This is true even for the Komi-Zyrian written standard, at least based on the publications used in our study. This is partly explained by analogical spread: routes often correlate with elongated landmarks that enable longitudinal movement, meaning that the route of action and the prolativ are conceptually very close in the minds of speakers.

In the case of adpositions, we can see tendencies pointing in the same direction. Adpositions define a functional area in relation to the referent of the adpositional clause (Carlson 2010 : 116–125). This area does not have exact boundaries or a clearly defined shape, but it is rather an abstraction of some significant part of the landmark with respect to the relation of the trajector and the landmark. However, at a certain level of conceptualisation, some properties can also be defined for the functional area (cf. Carlson 2010 : 123–133). Such

properties include, in particular, shape (e.g. *gęger* 'around'; Fokos-Fuchs 1959 s.v. *-gęger*) and size (compare, for example *dor-* 'in the immediate vicinity of'; Fokos-Fuchs 1959 s.v. *dor*, and Безносикова, Айбабина, Забоева, Коснырева 2012 s.v. *dın-* 'near'), but control is also a possible property. For example, the postpositions *uli-* 'under' (Fokos-Fuchs 1959 s.v. *uv*) and *pır* 'through' (Fokos-Fuchs 1959 s.v. *pır*) indicate a relation between the trajector and landmark where control is a part of the perceived situation.

Adpositions that express a region that does not control the route of the trajector often use the transitive as their *via*-case, whereas adpositions that control the trajector inflect more often in the prolative. For example, the most common adposition inflected in prolative is *kost-* 'between', where the functional area is some place in between two objects. In this case, the control exerted by the landmark on the route of the trajector is quite obvious. On the other hand, by far the most common adposition that inflects in the transitive in our corpus is *vıv-* 'top (surface)', in which the landmark exerts minimal or no control on the movements of the trajector. However, there seems to be some variation in the inflection of adpositions that cannot be explained by control alone. For example, the adposition *bok-* 'side', takes the prolative more often than the transitive, whereas *berd-* 'side' is inflected more often in the transitive. The frequencies of inflected adpositions in our data are quite low, however, so the observations mentioned here should be considered as putative tendencies that need more research.

The difference in the frequency between adpositions that take the prolative or transitive seems to be due to the fact that functional areas that control the trajector occur much less often in human conception than functional areas that do not control the trajector. This is probably because the relations expressed by adpositions are based on abstract regions that do not usually contain features that could control the movement of the trajector. The presence of the above-described distribution between prolatively and transitively inclined adpositions reinforces the view that it is precisely the feature of control that underlies the variation in the choice of Komi *via*-cases.

Syntactically, the grams called adpositions' here and 'postpositions' traditionally in Uralistics would probably better be analysed as relational nouns (Levinson 2003 : 102–103). Relational nouns are nouns expressing topological relations between the trajector and landmark. If we were to analyse these 'adpositions' as relational nouns, which are a subgroup of nouns, it would be easier to explain the spread of the 'adpositional' *via*-marker (transitive) into the domain of prolative. In this case, there would only be a spread of PATH coding from one type of nouns to another type. This is indeed the historical process we propose has taken place in some Zyrian dialects, and we will next discuss the necessary background and context for this.

4. *Via*-cases in the Permic languages and dialects

It has often been recognised that both Permic language groups, Udmurt and Komi, share similar variation with regard to *via*-cases. In Komi-Zyrian, this appears as two distinct cases, as described above; in Komi-Permyak as two allomorphs that are in complementary distribution by part of speech, as we will describe below; and in Udmurt as more complex allomorphy within one

case. Csúcs also considers the Udmurt allomorphs *-eti* and *-ti* to be connected to the Komi prolicative and transitive, respectively (Csúcs 2005 : 187–188). At the same time, it has been traditionally proposed that these forms cannot be connected to one another (Uotila 1933). This is not something we attempt to resolve in this study, but we want to contextualise this variation in order to understand better how our theoretical framework and results thus far fit into the wider picture.

We want to emphasise that the dialectal distributions of these forms in the Permic dialects should eventually be studied with both corpus-based materials and new elicitation. At this point in time, however, we rely on published sources. Our discussion here is based on the information that is available in the individual dialect monographs, the recent comparative monograph on Komi dialects (Попова, Сажина 2014), and the comparative description in the Komi dialect dictionary (ССКЗД 1961). In several Zyrian dialect descriptions, both prolicative and transitive are listed within the noun paradigm, and there are no explicit comments about the restrictions on their use. This situation is not ideal, as we must often infer from the lack of description that there are no further restrictions.

4.1. Via-cases in Komi varieties

Vászolyi (1968 : 52) argued that the main difference between prolicative and transitive in Zyrian lies in their dialectal distribution. He contrasted this with the idea of Lakó (1951 : 242–243), who proposed a more semantically based differentiation. In our view, too, the areal distribution deserves further examination, although our analysis in this study has also shown functional differences between the cases. The complete picture, however, is most likely a combination of different factors. Here, we will rely primarily on the descriptions of dialectal distributions of these two cases in earlier literature. However, we additionally refer to a recent study by the current authors that investigated this variation in three Komi dialect corpora (Partanen, Erkkilä 2020) and found further support for wide geographic variation within the Zyrian dialects. The primary result of that study was that the Udora dialect patterns similarly to Komi-Permyak and that the Ižma dialect, as described, does not use transitive commonly with nouns, while at the same time the prolicative with nouns is also exceedingly rare. Partanen and Erkkilä (2020) suggested dividing the Komi dialects into three types based on their use of the transitive with nouns. These groups are: 1) those dialects where the prolicative is used primarily with nouns and the transitive with adpositions and adverbs, 2) those where both the prolicative and the transitive are used frequently in the noun paradigm, and 3) dialects where the transitive is preferred or used as the only via-case.

The narrow distribution of the transitive in individual Zyrian dialects was recognised early on, and Baker (1985 : 87) suggested that their distribution in the Udora and Luza-Letka dialects was similar to that found in Komi-Permyak and Yazva. To summarise, in the Komi-Permyak literary standard, the transitive is used only with adpositions and adverbs (Коми-пермяцкий язык 1962 : 12; Цыпанов 1999 : 45), which appears to also be true of individual Komi-Permyak dialects (Vászolyi 1968 : 56). An additional palatal variant *-et'* is attested in the subdialects of the Komi-Permyak Jusva dialect and

in most of the Inva dialect (Кривошекова-Гантман, Ратегова 1980 : 12, 16). It is not clear how this development connects to the historical phonology of these individual dialects, which would be necessary in order to understand how and in which context this allomorph has emerged.

The Komi-Zyrian dialects also exhibit minor allomorphic variation in the shape of the prolative and transitive morphemes, as *Ižma* and Upper *Vučegda* dialects display the prolative variant *-ed*, and the latter dialect also has the allomorphs *-d* and *-ad* (Попова, Сажина 2014: 122–123). These allomorphs match the phonological systems of the individual dialects in question, with the front vowel phonotactically restricted in non-initial syllables (Сахарова, Сельков 1976 : 9–10; Сорвачева, Сахарова, Гуляев 1966 : 12), and, additionally, vowel assimilation in Upper *Vučegda* (Сорвачева, Сахарова, Гуляев 1966 : 12). This variation in Zyrian seems to be connected to the developments of the individual dialects, as the conditions from which they emerge are more widely present in their phonological systems. There is also minor variation in the forms of the possessive suffixes used with the prolative in the *Vym* dialect (Некрасова 2012). The variation relevant for our study is more closely related to morphology and to the position of the transitive in the noun paradigm.

Adding to Baker's (1985 : 87) suggestion that the use of the transitive in *Udora* and *Luza-Letka* is similar to that found in *Komi-Permyak* and *Yazva Komi*, it would appear that the same can be suggested for the Northern Zyrian dialect group more broadly. Попова, Сажина (2014 : 123) add that in *Vym* and *Ižma*, the use of the transitive is constrained to adpositions. This indicates that the geographically peripheral Zyrian dialects would align with *Komi-Permyak*. In the individual dialect monographs of Central *Sysola* (Колегова, Бараксанов 1980), *Syktuvkar* (Жилина, Бараксанов 1971), Upper *Vučegda* (Сорвачева, Сахарова, Гуляев 1966) and *Реҫора* (Сахарова, Сельков 1976), there is no information about restrictions on the use of either case in the noun paradigm, and the summary table of Попова, Сажина (2014 : 247) would also support this.

However, one shared isogloss between *Permyak* and Zyrian dialects can be found in the Upper *Kama* dialect of *Komi-Permyak* and the Upper *Sysola* dialect of *Komi-Zyrian*, as also discussed by Сажина (Сажина 2012). In the Upper *Kama* dialect, transitives are described as the predominant and preferred path-marking cases (Сажина 2012 : 192). Сажина (Сажина 2012 : 192) also presents an example from this dialect where the transitive expresses a POINT OF INTERACTION, which normally would never occur in other Komi varieties. This suggests that in Upper *Kama*, the use of the transitive extends to functions where the prolative is almost exclusively used in other Komi varieties. In her description of the Upper *Sysola* dialect, Жилина (1975 : 60) presents the transitive before the prolative in the noun paradigm, providing the prolative in brackets, and a similar priority is assigned to the transitive in Попова, Сажина 2014 : 247. There are, however, examples of the prolative being used to express a POINT OF INTERACTION (Жилина 1975: 71). Historically the extended use of the transitive could be an innovation in these individual varieties, illustrating one way grammatical variation can be simplified. The Upper *Sysola* and Upper *Kama* dialects are not geographically close, but they are still adjacent to one another within the Komi dialect continuum (see map in Figure 3). It would thus be tempting to analyse this as a shared development between the two dialects.

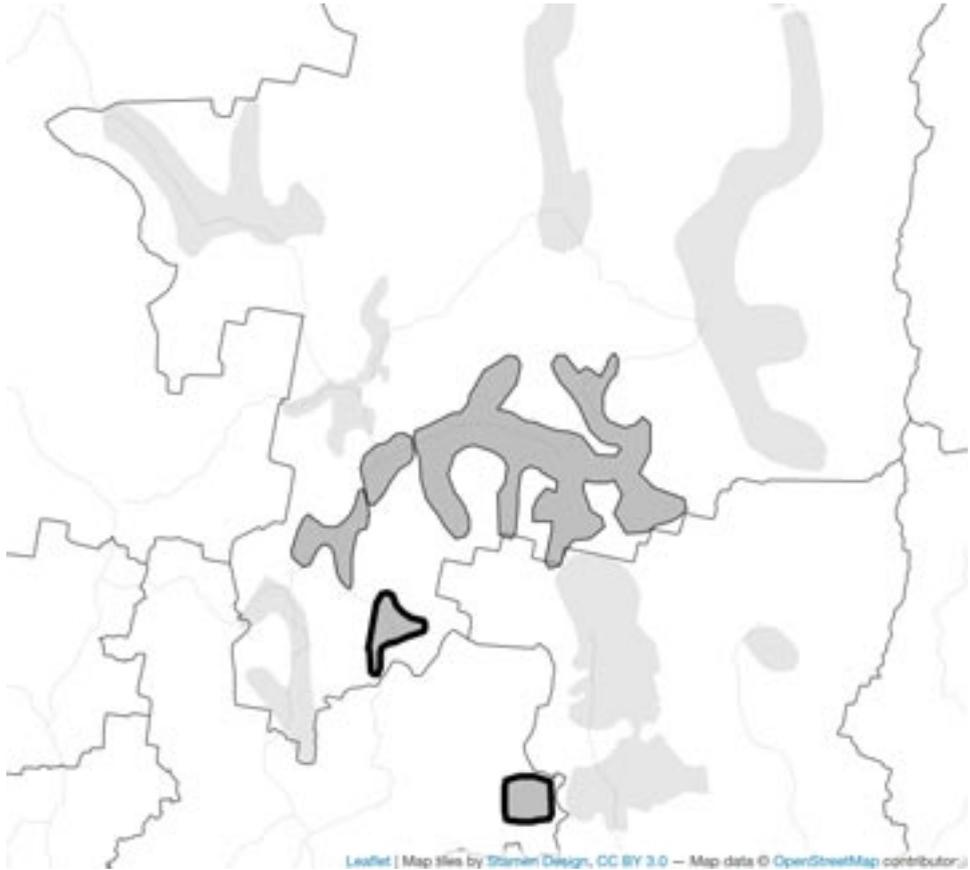


Figure 3. The three main Komi varieties and their dialects. The area where transitives are used in the noun paradigm is marked with a black border. The Upper Sysola and Upper Kama dialects are highlighted with a thicker border.

Figure 3 shows the Komi dialects in their geographical locations and highlights the dialects of Upper Sysola and Upper Kama, where transitives are described as being the preferred or dominant *via*-case. The thinner border marks the dialects where the prolativ and transitive are described as being used alongside one another. As we have discussed, the actual distribution in the dialects may be more complicated, and this picture is necessarily simplified. However, the basic idea, we believe, does hold: the peripheral varieties share a system where part of speech is the predominant differentiator, in some dialects, the transitive has emerged as the preferred *via*-case, and in some of the Zyrian dialects, we observe that both of these cases are productively used. The latter phenomenon appears to be geographically confined to those Zyrian dialects along the Sysola river and the upper part of the Vychegda river. This area also forms a continuum of Komi dialects and settlements, the Upper Vyčegda and Pečora themselves being relatively recently formed Zyrian dialects.

4.2. *Via*-cases in Udmurt

The Udmurt language is very closely related to Komi, and the two languages largely share the same system of spatial cases. There is only one prolativ case

in Udmurt, but it has relatively extensive allomorphy, which we aim to describe next based on existing sources. We focus primarily on the descriptions that mention some type of distributional difference between the allomorphs. Much of the variation is dialectal, but the written standard also exhibits some of the same allomorphy seen in the dialects.

The allomorphs present in the written standard are *-eti*, *-jeti*, *-jiti* and *-ti*. All allomorphs are present in the singular, and the last variant is used in the plural (Keľmakov, Hännikäinen 2008 : 143). This has a parallel with the instrumental case, which also exhibits more extensive variation in the singular (Некрасова 2020 : 26). A similar distribution with *-eti* in singular and *-ti* in plural has also been reported in the Northern Udmurt dialect of Upper Čepca (Алашеева 1992 : 18). Keľmakov adds that the allomorph *-ti* is also preferred in the plural and with adpositions in the Southern dialects, and there are some Southern and Central dialects that use *-ti* exclusively (Кеľмаков 1998 : 122–123). As discussed above, this has parallels in the Komi dialects.

Another type of allomorphy appears in dialectal variants with a palatal stop or /k/, essentially with the forms *-t'i*, *-ki*, *-eki*, *-e't'i* and *-i't'i* (Csúcs 2005 : 187). It is generally thought that this allomorphy would have developed through the sound changes /-ti/ > /-t'i/ > /-ki/ (Csúcs 2005 : 187; Beke 1912 : 241). At least in the Beserman dialect, there are examples of the change having occurred in both directions, with the palatal stop emerging from /t/ and /k/ before /i/ or /e/, but the proposed /-ti/ > /-t'i/ change is still more common in the examples provided by Кеľмаков (2004 : 262). There are no parallels for this in the Zyrian dialects, but as discussed above, individual Komi-Permyak dialects do have a palatal prolicative allomorph. However, this allomorphy is not reported to be in variation within these subdialects. Historically in Udmurt, we must be observing two different phenomena: the presence and lack of the initial vowel, and some type of palatalisation of the stop.

This brief overview already shows 1) that in some Udmurt varieties, the allomorph *-ti* is preferred in the plural, 2) that *-ti* is also preferred with adpositions, and 3) that some Udmurt varieties predominantly use *-ti* in all positions. For the first observation, we did not find a parallel distribution in Komi, and the prolicative was preferred in plurals over the transitive, at least in the current corpus. To our knowledge, it has not been proposed before that a distribution where transitive would be preferred in plurals would be expected in Komi, but as it has been reported for Udmurt, we believed that testing this statistically in Komi would be a meaningful undertaking, even with negative results. For the second distributional observation, we showed a clear parallel in Komi, as even in the literary language the transitive is still preferred with adpositions. The way individual Udmurt dialects mainly use the allomorph *-ti*, which is formally identical to the Zyrian transitive, also finds some parallels in Komi, as in the situation in the Upper Kama and Upper Sysola dialects discussed above.

Vászolyi (1968 : 68–69) states that the variation in Udmurt cannot be satisfactorily explained, but he points out that Udmurt also displays similar allomorphy with other cases (see also Некрасова 2009). Vászolyi (1968 : 68–69) concludes that the allomorphy is lexically conditioned in Udmurt, and that the variants should be analysed as allomorphs of one prolicative case, although more investigation is still needed (Vászolyi 1968 : 69–70).

5. Historical position of the prolicative and transitive in the Zyrian dialect continuum

Contrary to the view of Vászolyi (1968 : 62), who proposed that the transitive had receded from the noun paradigm in some dialects, we assume that the opposite process has taken place, with the transitive having shifted into the noun paradigm. This must have taken place in the Upper Kama dialect, and at least partially also in Upper Sysola. We also saw a process in the Southern Udmurt dialects where the two allomorphs were generalised to *-ti*. Something along these lines has also taken place in the Ižma dialect, where prolicative forms are reported to be exceedingly rare (Partanen, Erkkilä 2020). This suggests that these individual Udmurt and Komi dialects have undergone a parallel development in which two allomorphs have been generalised into one variant that corresponds to the transitive *-ti*. Our analysis showed that the transitive is more common than the prolicative and that it occurs with many frequent adpositions, which may be one reason behind this preference.

The suggestion that the distribution between parts of speech would be shared by the Permic languages more broadly seems very plausible based on the current description and the results presented here. Divergent scenarios we find in different dialects must be individual developments. Looking to the dialectal distribution of this feature in the Komi dialects, the suggestion by Partanen and Erkkilä (2020) that dialect contact between Upper Sysola and Central Sysola could have been involved in the spread of the wider use of the transitive along the Komi dialects spoken by the Sysola river would also appear believable. This would explain why the peripheral Zyrian dialects do not exhibit this phenomenon, and how the system of two path cases emerged in the Komi-Zyrian written standard, which is based on the dialect spoken in the Syktyvkar region, which again is in direct contact with the dialects spoken along the Sysola river. The innovation in question can be characterised as the use of transitive in the noun paradigm, which essentially has been a shift of one allomorph from one subtype of noun to another. This has disturbed the original complementary distribution and led to the creation of two distinct cases. The parallels from different Permic dialects where the allomorph system has become similarly simplified support this scenario.

6. Conclusion

In this study, we set out to investigate various distributions and uses of two path marking cases in Komi-Zyrian. We grounded our analysis within a wider semantic description of the spatial cases and employed theoretical concepts from cognitive linguistics, especially *proto-scene* and *functional element*.

Using this framework, we analysed separately the senses of prolicative and transitive as they appear in our corpus. The analysis was based on a qualitative analysis of the examples, the distribution of which was then analysed quantitatively using corpus linguistics methods. The results were then verified with statistical tests. The difference we found in this analysis was that the *via*-case is primarily chosen based on the movement-limiting characteristics (control) of the landmark. The prolicative is frequently used with elongated landmarks, for which the restriction and control of the movement are salient properties. The transitive, on the other hand, is used with

two- or three-dimensional landmarks where the motion is not restricted. We argue that the secondary senses of the prolative, such as POINT OF INTERACTION, can be derived from its PATH sense, through the perceived similarity of motion along an elongated landmark and directed motion in general. This analysis also showed that both prolative and transitive are intracategorically coherent but intercategoryally distinct, which leads to the conclusion that, as previous research has proposed, the prolative and transitive are distinct cases in their own right at least in written Komi and the dialects it is based on.

In the quantitative section of the study, we used a corpus created from the Fenno-Ugrica collection of the National Library of Finland (<https://fenno-ugrica.kansalliskirjasto.fi>). We explained how the corpus was created and analysed. Our first corpus-based investigation concerned the distribution of the prolative and transitive with different parts of speech, primarily with nouns and adpositions. Our results showed strongly that the prolative is also preferred with the nouns and the transitive with adpositions in written Komi. This investigation did not include adverbs, where transitive is almost exclusively used. Similar distributions have also been described in the closely related Komi-Permyak and Udmurt languages. We also found that plural forms of the transitive are rarer than plural forms of the prolative, which differs from the distribution of the corresponding allomorphs in Udmurt. Next, we analysed the correlation of landmark features and case. This confirmed our earlier results, according to which passage-type and elongated landmarks primarily use the prolative. The last corpus-based part of the study concerned the directionality of the predicate. In our qualitative analysis, we assumed that this would also be one of the factors related to the choice of case in Komi. Our corpus-based analysis, however, did not support this, and we essentially found an even distribution that primarily varies across different parts of speech and is not affected by the directionality of the predicate. This does not mean that some other property of the predicate could not still be significant. In order to make our work transparent, we also reported these negative results and left the properties of the predicate as one topic that deserves further attention.

Since the difference between nouns and adpositions appeared so clear in the case distribution, we discussed the variation we find in our data between different adpositions in greater detail. This showed that the same features that are crucial for the choice of case with nouns are also realised with adpositions. We also pointed to the conceptual questions around adpositions and relational nouns, which is connected to the fluidity between spatial adpositions and nouns and also is important when we consider how the jump of one case between different classes of nouns may have occurred.

To analyse this in a better historical perspective, we summarised how the path-expressing cases in different Permic languages have been described in earlier research. Based on this data, we can suggest that the change in the use of the transitive in the noun paradigm as an innovation in the Upper Kama and Upper Sysola dialects, and discussed a possible scenario for how this change may have spread along the Komi dialects. The fact that these two dialects share an innovation has clear historical implications for the internal classification of Komi dialects, but more research on the differentiation of Komi varieties is needed to describe these scenarios in detail. We also note that a

similar process, wherein one of the allomorphs, *-ti*, has been generalised to all positions, has also happened in Udmurt dialects, which strengthens our suggestion that similar generalisations could have occurred in Komi dialects as well, most extensively in Upper Kama.

Our work builds upon earlier research and essentially verifies the results of Некрасова 2019. With regard to further research, we think that the studies on this topic should extend into various Komi dialect text collections and multi-media corpora, so that we can better understand the exact coverage of this case variation in Komi varieties. Similarly, as the use of the transitive differs between Komi dialects, studies of how different authors use these cases could also reveal more information on how they are conceptualised and used.

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Abbreviations

ACC — accusative; ADP — adposition; ADV — adverb; CAR — caritive; CAUS — causative; CNG — connegative; COM — comitative; CVB — converb; DAT — dative; EGR — egressive; FOC — focus particle; FRQ — frequentative; FUT — future; GEN — genitive; ILL — illative; INE — inessive; INF — infinitive; INST — instrumental; NEG — negation; NOM — nominative; PL — plural; PROL — prolative; PRS — present; PST — past; PST2 — second past; PTCP — participle; PX — possessive suffix; REFL — reflexive; SG — singular; SIM — simultaneity; TERM — terminative; TRA — transitive.

ALHung. — Acta Linguistica Academiae Scientiarum Hungaricae, Budapest; **ESUKA** — Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics, Tartu; **MSFOu** — Mémoires de la Société Finno-ougrienne, Helsinki; **NyK** — Nyelvtudományi Közlemények, Budapest; **UAJb.** — Ural-Altische Jahrbücher, Wiesbaden; **ССКЗД** — Т. И. Ж и л и н а, М. А. С а х а р о в а, В. А. С о р в а ч е в а, Сравнительный словарь коми-зырянских диалектов, Сыктывкар 1961.

REFERENCES

- A l h o n i e m i, A. 1985, Über die Wohinkasus im Mordwinischen. — UAJb. 5, 45–53.
- B a k e r, R. 1985, The Development of the Komi Case System. A Dialectological Investigation, Helsinki (MSFOu 189).
- B a r t e n s, R. 1999, Mordvalaiskielten rakenne ja kehitys, Helsinki (MSFOu 232). — — 2000, Permiläisten kielten rakenne ja kehitys, Helsinki (MSFOu 238).
- B e k e Ö. 1912, A votják és a zúrjén prolativusról. — NyK XLI, 241–274.
- C a r l s o n, L. 2010, Parsing Space around Objects. — Language, Cognition and Space. The State of the Art and New Directions, London–Oakville, 115–137.
- C s ú c s, S. 2005, Die Rekonstruktion der permischen Grundsprache, Budapest (Bibliotheca Uralica 13).
- E r k k i l ä, R. 2019, Ersän illatiivin ja latiivin merkitykset. Pro gradu -tutkielma. Helsingin yliopisto. Humanistinen tiedekunta. <http://urn.fi/URN:NBN:fi:hulib-201909103470>.
- F e i s t, M. I. 2010, Inside *in* and *on*: Typological and Psycholinguistic Perspectives. — Language, Cognition and Space. The State of the Art and New Directions, London–Oakville, 95–114.

- F o k o s - F u c h s, D. R. 1959, *Syrjänisches Wörterbuch II*, Budapest.
- G l y n n, D. 2014, Polysemy and Synonymy. *Cognitive Theory and Corpus Method*. — *Corpus Methods for Semantics. Quantitative Studies in Polysemy and Synonymy*, Amsterdam—Philadelphia, 7—38.
- H ä m ä l ä i n e n, M. 2019, UralicNLP: An NLP Library for Uralic Languages. — *Journal of Open Source Software* 4(37), 1345. <https://doi.org/10.21105/joss.01345>.
- J a n d a, L. 2007, Inflectional Morphology. — *The Oxford Handbook of Cognitive Linguistics*, Oxford, 632—649.
- K e l m a k o v, V., H ä n n i k ä i n e n, S. 2008, *Udmurtin kielioppia ja harjoituskia. 2., korjattu painos*, Helsinki (Apuneuvoja suomalais-ugrialaisten kielten opintoja varten XIV).
- K u z n e t s o v, N. 2012, Matrix of Cognitive Domains for Komi Local Cases. — *ESUKA* 3(1), 373—394.
- L a k ó, Gy. 1950, Zur Frage des permischen Prosektivs und Transitivs. — *Commentationes Fenno-Ugricae in honorem Y. H. Toivonen*, Helsinki (MSFOu XCVIII), 219—243.
- — 1951, Emploi du prosécutif et du transitif dans les langues permienne, l'origine de leurs désinences casuelles. — *ALHung.* 1, 75—118, 347—371.
- L a n g a c k e r, R. W. 1987, *Foundations of Cognitive Grammar. Volume 1. Theoretical Prerequisites*, Stanford.
- — 1991, *Concept, Image, and Symbol. The Cognitive Basis of Grammar. Vol. 1*, Berlin.
- — 2008, *Cognitive Grammar. A Basic Introduction*, Oxford.
- L e v i n s o n, S. C. 2003, *Space in Language and Cognition. Explorations in Cognitive Diversity*, Cambridge.
- L e w a n d o w s k a - T o m a s z c z y k, B. 2007, Polysemy, Prototypes, and Radial Categories. — *The Oxford Handbook of Cognitive Linguistics*, Oxford, 139—169.
- P a r t a n e n, N., E r k k i l ä, R. 2020, Dialectal Variation in the Path-Coding Cases in Komi. — *Диалекты и история пермских языков во взаимодействии с другими. Сборник статей. Часть 1, Ижевск (Пермистика 18)*, 145—161.
- — 2021, Komi Path Dataset. Version v1.1. <https://doi.org/10.5281/zenodo.6536573>.
- S h a k h o v a, D., T y l e r, A. 2010, Taking the Principled Polysemy Model of Spatial Particles beyond English: The Case of Russian *za*. — *Language, Cognition and Space. The State of the Art and New Directions*, London—Oakville, 295—321.
- S i n h a, C., K u t e v a, T. 1995, Distributed Spatial Semantics. — *Nordic Journal of Linguistics* 18(2), 167—199.
- S t e f a n o w i t s c h, A. 2020, *Corpus Linguistics. A Guide to the Methodology*, Berlin (Textbooks in Language Sciences 7).
- T a l m y, L. 2000, *Toward a Cognitive Semantics. Volume 1. Concept Structuring Systems*, Cambridge.
- T a y l o r, J. 2003, Near Synonyms as Co-Extensive Categories: 'high' and 'tall' Revisited. — *Language Sciences* 25, 263—284.
- T y l e r, A., E v a n s, V. 2003, *The Semantics of English Prepositions. Spatial Scenes, Embodied Meaning, and Cognition*, Cambridge.
- U o t i l a, T. E. 1933, Zur Geschichte des Konsonantismus in den permischen Sprachen, Helsinki (MSFOu LXV).
- V a n d e l o i s e, C. 2010, Genesis of Spatial Terms. — *Language, Cognition and Space. The State of the Art and New Directions*, London—Oakville, 171—192.
- V á s z o l y i E. 1968, Prolatívusz, tranzitívusz, lokatívusz a zürjénben, a votjákban és a finnugor alapnyelben. — *NyK LXX*, 47—85.
- Z l a t e v, J. 2003, Holistic Spatial Semantics of Thai. — *Cognitive Linguistics and Non-Indo-European Languages*, Berlin, 305—336.
- — 2007, Spatial Semantics. — *The Oxford Handbook of Cognitive Linguistics*, Oxford, 318—350.
- А л а ш е в а А. 1992, Пространственные падежи северноудмуртского наречия. На материале верхнечепецкого говора. — *Диалекты и история пермских языков, Сыктывкар (Пермистика 3)*, 16—19.

- Безносикова Л. М., Айбабина Е. А., Забоева Н. К., Коснырева Р. И. 2012, Коми сёрнисикас кывчукор. Словарь диалектов коми языка 1—2, Сыктывкар.
- Бубрих, Д. В. 1949, Грамматика литературного коми языка, Ленинград.
- Жилина Т. И. 1975, Верхнесыольский диалект коми языка, Москва.
- Жилина Т. И., Бараксанов Г. Г. 1971, Присыктывкарский диалект и коми литературный язык, Москва.
- Кельмаков В. К. 2004, Диалектная и историческая фонетика удмуртского языка. Часть 2, Ижевск.
- 1998, Краткий курс удмуртской диалектологии, Ижевск.
- Колегова Н. А., Бараксанов Г. Г. 1980, Среднесыольский диалект коми языка, Москва.
- Коми-пермяцкий язык. Введение, фонетика, лексика и морфология, Кудымкар 1962.
- Кривошекова-Гантман А. С., Ратегова Л. П. 1980, Коми-пермяцкие говоры. Учебное пособие, Пермь.
- Кузнецов Н. 2012, Пространственная семантика местных падежей коми языка (когнитивный анализ), Tartu (Dissertationes Philologiae Uralicae Universitatis Tartuensis 12). <http://hdl.handle.net/10062/28247>.
- Некрасова Г. А. 2009, Структура слова и выбор падежного алломорфа в удмуртских диалектах. — Вопросы уралистики, Санкт-Петербург, 381—398.
- 2020, Варьирование падежных суффиксов в современном удмуртском языке. — Ежегодник финно-угорских исследований. Том 14, 25—33.
- 2012, Факторы вариативности позиции морфем в морфологической структуре слова (на материале коми диалектов). — Вестник Санкт-Петербургского университета. Язык и литература. Том 9. Выпуск 3, 150—158.
- 2019, Конкуренция пролативных суффиксов в коми языке: опыт корпусного исследования. — Актуальные вопросы коми и пермского языкознания, Сыктывкар (Труды Института языка, литературы и истории Коми НЦ УрО РАН. Выпуск 77), 53—63.
- Попова Р. П., Сажина С. А. 2014, Фонетические и морфологические особенности коми диалектов (сравнительный аспект исследования), Сыктывкар.
- Рютер Дж. М. 2000, Хельсинкиса университетын кыв туялысь Ижгарын перымса кывъяс симпозиум вылын лыддьомтор. — Проблемы синхронии и диахронии пермских языков и их диалектов, Ижевск (Пермистика 6), 154—158.
- Сажина С. А. 2012, Падежная система верхнекамского наречия коми-пермяцкого языка. — Вопросы пермского языкознания, Сыктывкар (Пермистика 13), 189—196.
- Сахарова М. А., Сельков Н. Н. 1976, Ижемский диалект коми языка, Сыктывкар.
- Современный коми язык. Часть первая. Фонетика, лексика, морфология, Сыктывкар 1955.
- Сорвачева В. А., Сахаров М. А., Гуляев Е. С. 1966, Верхневычегодский диалект коми языка, Сыктывкар.
- Федюнова Г., Некрасова Г., Лудыкова В., Цыпанов Е., Попова Э. 2000, Ёния коми кыв. Морфология, Сыктывкар.
- Цыпанов Е. А. 1999, Перым-коми гижод кыв, Сыктывкар.

НИКО ПАРТАНЕН (Хельсинки), *РИКУ ЭРККИЛЯ* (Мюнхен—Хельсинки)

**ПАДЕЖИ, ОБОЗНАЧАЮЩИЕ ПУТЬ, В КОМИ ЯЗЫКЕ
СЕМАНТИЧЕСКИЕ, ДИАЛЕКТОЛОГИЧЕСКИЕ И ИСТОРИЧЕСКИЕ
ПЕРСПЕКТИВЫ**

В статье рассматриваются функции и использование пролативных падежей коми-зырянского языка. Теоретической основой работы послужила когнитивная лингвистика, а падежи в письменном коми языке исследуются с помощью методов корпусной лингвистики. Анализ показывает, что два пролативных падежа имеют разное распространение и функции, но есть и такие диалектные и грамматические факторы, которые влияют на их использование. Кроме того, здесь показано, что существуют параллели между распространением этих форм в разных пермских языках и диалектах. Результаты рассматриваются в контексте пермской диалектологии и анализируется, каким образом эти формы связаны и как они развивались в определенных разновидностях коми языка.

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**LIIKUMISTEED VÄLJENDAVID KOMI KÄÄNDED:
SEMANTILINE, DIALEKTOLOOGILINE JA AJALOLINE VAATENURK**

Artiklis analüüsitakse komi prolatiivide funktsioone ja kasutamist. Töö teoreetiliseks aluseks on kognitiivne lingvistika ning komi kirjakeele käändetarvituse uurimiseks on rakendatud korpuslingvistika meetodeid. Analüüs näitab, et kaks prolatiivi on erineva distributsiooni ja funktsioonidega, kuid nende käänete kasutamist mõjutavad ka murdelised ja grammatilised tegurid. Lisaks ilmneb, et analüüsitud vormide puhul võib permi keeltes ja murretes leida paralleele. Permi dialektoloogia raames analüüsitakse nende omavahelisi seoseid ja seda, kuidas on need vormid arenenud komi keele eri variantides.