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The case-marking of subjects in Udmurt, Komi-Zyryan and Meadow Mari non-finites clauses

This paper deals with the Udmurt, Komi-Zyryan and Meadow Mari non-finite clauses headed by the suffix *-m*. These non-finite clauses can be used in relative, adjunct and argument position in the matrix clause. According to previous studies, the subject of these non-finite clauses can be either in the nominative or in the genitive, and this case alternation has to do with semantic and, partly, with syntactic factors. It has been observed that in Udmurt, the subject must bear the genitive if the non-finite clause is in argument position. In this study, I present some counterexamples to this generalisation. However, I argue that these are deverbal compounds. I try to extend the compound analysis to Komi-Zyryan and Meadow Mari as well. Additionally, I suggest that the position of the non-finite clause determines the case-marking of the subject. Finally, I briefly discuss the notion of the so-called “juxtaposed possessive construction”. Most of the presented (Udmurt) data comes from own fieldwork.

Keywords: non-finite clauses, Udmurt, Komi-Zyryan, Meadow Mari, overt subject, case-marking

1. Introduction

This paper deals with non-finite clauses headed by the suffix *-m* in three Finno-Ugric languages: Udmurt, Komi-Zyryan and Meadow Mari. More specifically, I would like to discuss the case-marking of the subject in these non-finite clauses. This question has been addressed in the recent literature (SERDOBOL'SKAJA 2008a, 2008b on Komi-Zyryan and Meadow Mari; SERDOBOL'SKAJA ET AL. 2012 on Komi-Zyryan, Meadow Mari and Beserman Udmurt; and GEORGIEVA – ÓTOTT-KOVÁCS 2016 on Udmurt). These non-finite clauses can be used as relative, adjunct or argument clauses. It has been observed that the subject of the non-finite clause shows case alternation: it can be either marked using either the nominative or the genitive. As far as the Udmurt *-m*-clauses are concerned, it has been claimed that the subject of these clauses must bear the genitive if the non-finite clause is used in argument position. In this paper, I will present some Udmurt counterexamples to this generalisation. However, I will argue that the previous generalisation can be maintained if we view the relevant constructions as deverbal compounds rather than non-finite clauses.

The paper is organised as follows. In section 2., I will provide an overview of the main morphosyntactic properties of the non-finite clauses in question. In section 3., I will summarise the previous proposals concerning the case-marking of

the subject in the Udmurt non-finite clauses (based on SERDOBOL'SKAJA ET AL. 2012 and GEORGIEVA – ÓTOTT-KOVÁCS 2016). I will also present Udmurt data that seem to contradict the previous analyses. In section 4., I will discuss these counterexamples in greater detail and offer an explanation. My claim will be that Udmurt uses both non-finite clauses and deverbal compounds. Under this approach, what are traditionally called nominative subjects turn out to be non-heads of compounds. I will further provide a classification of the Udmurt deverbal nouns.

Section 5. is devoted to the possible extensions of the compound analysis proposed in section 4. Firstly, I will summarise SERDOBOL'SKAJA's (2008a) proposal regarding the nominative–genitive case alternation in the Pechora dialect of Komi-Zyryan and in Meadow Mari. Then, it will be discussed whether we find evidence that the nominative subjects in Komi-Zyryan and Meadow Mari can be analysed as non-heads of compounds (this will be illustrated with some elicited Meadow Mari examples). I will also point out some syntactic criteria that have not been taken into account in the description of the non-finite clauses so far, namely the position of the non-finite clause. In addition, I will touch upon the issue of the so-called “juxtaposed possessive structure”, which is a largely accepted term in Finno-Ugristics. However, I will argue that these constructions can possibly be re-analysed as deverbal compounds.¹

¹ I would like to express my gratitude to JEREMY BRADLEY (Ludwig-Maximilian University), TATIANA JEFREMOVA (Eötvös Loránd University) and ANASTASIA SAJPASŠVA (Eötvös Loránd University) for their comments regarding the Meadow Mari examples. I would also like to thank NIKO PARTANEN (University of Hamburg) and ALEXANDRA KELLNER for their advice concerning the Komi data. I am also grateful to ISTVÁN KENESEI (University of Szeged, Research Institute for Linguistics, Hungarian Academy of Sciences) for his feedback on an earlier draft of this paper. The present study benefited enormously from the suggestions and comments of the two anonymous reviewers of *Nyelvtudományi Közlemények*. Last but not least, I am immensely indebted to my Udmurt informants for sharing their native speaker intuitions with me, and especially to V. K. KEEMAKOV (Udmurt State University) for our discussion of the Udmurt data. All mistakes and misinterpretations are mine.

2. Non-finite clauses headed by *-m* in Udmurt, Komi-Zyryan and Meadow Mari²

Non-finite clauses headed by the suffix *-m* are found in all of the above-mentioned Finno-Ugric languages. The suffix itself is believed to originate from the Proto-Uralic deverbal noun suffix **-ma/-mä* (CSÚCS 2005: 281). In the present-day languages, these non-finite clauses can be used in three different syntactic positions in the matrix clause. First, they can head relative clauses modifying noun phrases (1). Secondly, they can be adjunct clauses (in this case they are selected by postpositions or semantic cases); see example (2). Thirdly, they can be used as argument clauses (e. g. if they function as an argument of the matrix predicate), as in example (3). The three syntactic positions of these non-finite clauses are exemplified with the following Udmurt sentences (similar examples occur also in Komi-Zyryan and Meadow Mari).

(1) Udmurt (PEREVOŠČIKOV 1962: 259)

[*tue mertt-em*] *pispu-os-mi*
 this.year plant-NF tree-PL-1PL
 ‘the trees that we planted this year’

(2) Udmurt (GEORGIEVA – ÓTOTT-KOVÁCS 2016: 61, ex. (20))

[*Šundj pukš-em*] *bere agaj-e azbar-e pot-i-z.*
 sun set-NF after elder.brother-1SG garden-ILL go.out-PST-3SG
 ‘After the sun (had) set, my elder brother went to the garden.’

(3) Udmurt (own fieldwork)

[*Peta-len ekt-em-ez*] *kelš-e mjinim.*
 Peter-GEN dance-NF-3SG appeal-PRS.3SG I.DAT
 ‘I like Peter’s dancing (lit. Peter’s dancing appeals to me).’

Because of their multifunctionality, the descriptive grammars have classified these non-finite clauses either as participles or as deverbal nouns (or as homonymous forms) (see ALHONIEMI 1993: 129, BUBRIH 1949: 126, PEREVOŠČI-

² Komi-Zyryan and Udmurt belong to the Permic branch of the Finno-Ugric language family, while Meadow Mari belongs to the Volgaic branch. According to the Russian Census of 2010, Udmurt has about 324,000 speakers, Komi-Zyryan has approximately 156,000 speakers, and Meadow Mari has about 365,000 speakers (source: http://www.gks.ru/free_doc/new_site/perepis2010/croc/Documents/Vol4/pub-04-05.pdf). Komi-Zyryan is spoken in the Komi Republic as well as in the Khanty-Mansi Autonomous Okrug and Yamalo-Nenets Autonomous Okrug; Udmurt is spoken in the Republic of Udmurtia as well as in Bashkortostan, Tatarstan, Perm Krai and Kirov Oblast, and Meadow Mari is spoken in the Mari-El Republic (however, there are Mari diasporas in Bashkortostan, Tatarstan, Kirov Oblast, and in the Udmurt Republic).

KOV 1962: 262–264, KEJMAKOV – HÄNNIKÄINEN 1999: 206–207, BARTENS 2000: 235–238, CYPANOV 1997: 33–38).³

I would like to emphasise that there are structural differences between the non-finite clauses used in the three syntactic positions. The differences have to do with the agreement marking used on the non-finite predicate and the case-marking of the subject (as well as the combination of these two parameters).⁴ As for its case-marking, the subject of the non-finite clause can be either in the genitive or in the nominative. For instance, in example (2), the subject, *šundj* ‘sun’, bears the nominative.⁵ On the other hand, in (3), the subject of the non-finite clauses, *Peŕa*, bears the genitive. It is noteworthy that in Udmurt, Komi-Zyryan and Meadow Mari, possessors are encoded in the genitive case. Hence, the non-finite clauses used in argument position appear to behave like possessive constructions.⁶

³ In this paper, I do not want to commit myself to either of these interpretations since this paper does not aim at classifying these non-finite forms. I will use the gloss NF (non-finite) throughout the paper.

⁴ To be precise, the *-m*-clauses take possessive suffixes, however, I prefer the more general term “agreement”.

⁵ Nominative is morphologically unmarked in the three languages dealt with in this paper; hence, it is not glossed explicitly throughout the paper.

⁶ A remark is in order regarding the possessive constructions in the Permic languages. In both Komi-Zyryan and Udmurt, the possessor is usually in the genitive, but if the possessive phrase is assigned the accusative, the possessor does not bear the genitive, but the ablative case; compare (4a, b) (for a theoretical analysis see ASSMANN ET AL. 2014, for a diachronic explanation see EDYGAROVA 2010).

(4) Possessive construction in Udmurt

- a) *Peŕa-len punj-jez ut-e.*
 Peter-GEN dog-3SG bark-PRS.3SG
 ‘Peter’s dog is barking.’
- b) *Peŕa-leš punj-ze šud-i.*
 Peter-ABL dog-3SG.ACC feed-PST[1SG]
 ‘I fed Peter’s dog.’

Crucially, the *-m*-clauses show the same case alternation. In example (3), the subject of the non-finite clause bears the genitive. However, in (5), it bears the ablative since the whole non-finite clause is assigned the accusative (it functions as an object of the matrix clause):

(5) Udmurt (GEORGIEVA – ÓTOTT-KOVÁCS 2016: 63, ex. (26))

- Soos [(m)neštīm] likt-em-me viŕ-i-zj.*
 they (LABL) come-NF-1SG.ACC wait-PST-3PL
 ‘They were waiting for me to come.’

It should be noted that SERDOBOL’SKAJA (2008a, 2008b) and SERDOBOL’SKAJA ET AL. (2012) gloss the ablative as GEN2. In this paper, I prefer the gloss ABL. The glossing of

The above-mentioned morphosyntactic differences between the non-finite clauses used in the three syntactic positions have been largely acknowledged by the researchers (see SERDOBOL'SKAJA 2008a, 2008b; SERDOBOL'SKAJA ET AL. 2012; and GEORGIEVA – ÓTOTT-KOVÁCS 2016). In addition to the case-marking of the subject and the presence/absence of agreement, a third difference has been mentioned, too, namely the temporal reference of the non-finite clause. Non-finite relative clauses, or, in other words, participles, are sometimes said to refer to past events, whereas deverbal nouns do not necessarily refer to past events (see SERDOBOL'SKAJA ET AL. 2012: 407 and BRYKINA – ARALOVA 2012 for a further discussion). In this paper, I will concentrate on the morphosyntactic differences and, more specifically, on the case-marking of the subject. In all three Finno-Ugric languages, the subject of the non-finite clause can be encoded either in the genitive or in the nominative. This was illustrated using the Udmurt examples above.

As pointed out by SERDOBOL'SKAJA ET AL. (2012), the choice between nominative and genitive is subject to different restrictions in the three Finno-Ugric languages. Moreover, it has been observed that there is variation even between the dialects of one and the same language. SERDOBOL'SKAJA ET AL. (2012) draw conclusions based on the Pechora dialect of Komi-Zyryan (data collected in the village of Yeremeyevo, Komi Republic, Russian Federation), the *Izva* dialect of Komi-Zyryan (data in the village of Muzhi, Komi Republic, Russian Federation), the Beserman dialect of Udmurt (data collected in the village of Shamardan, Republic of Udmurtia, Russian Federation), and Meadow Mari (data collected in the village of Saryj Torjal, Mari El Republic, Russian Federation). SERDOBOL'SKAJA ET AL. (2012) claim that the Pechora dialect of Komi-Zyryan and Meadow Mari show similarities concerning the nominative–genitive alternation (the factors determining the nominative–genitive alternation are discussed at length by SERDOBOL'SKAJA 2008a, 2008b). Additionally, SERDOBOL'SKAJA ET AL. (2012) argue that the Beserman dialect of Udmurt and the *Izva* dialect of Komi-Zyryan, on the other hand, behave in a similar way with respect to this alternation. Udmurt is also discussed by GEORGIEVA – ÓTOTT-KOVÁCS (2016). The data presented in this study come from nine Udmurt native speakers representing different dialects (Northern, Central and Southern, but no Beserman informants). SERDOBOL'SKAJA ET AL. (2012) and GEORGIEVA – ÓTOTT-KOVÁCS (2016) come to similar conclusions regarding the Udmurt *-m*-clauses; however, the latter study presents one example that seems to contradict these generalisations.

Below, I will summarise the main points of the analysis proposed for the nominative–genitive alternation in Udmurt. Then, I will take a closer look at the

the cited examples has been slightly modified for the sake of consistency. The English translations are mine (I am grateful to JEREMY BRADLEY for helping me with the translation of the Mari examples).

possible counterexamples. I will claim that these data point out a parameter that has not been taken into consideration in the description of the non-finite clauses so far. In a nutshell, my claim will be that Udmurt uses both non-finite clauses and deverbal compounds. Hence, (some of the) nominative subjects should be analysed as non-head of compounds.

In section 5., I will provide an overview of the findings presented in SERDOBOL'SKAJA (2008a) regarding the nominative–genitive case alternation in Pechora Komi-Zyryan and Meadow Mari. I will point out some problems with the previous analysis and try to extend the compound analysis proposed for the Udmurt data to the Komi-Zyryan and Meadow Mari non-finite clauses. Additionally, it will be suggested that the syntactic position of the non-finite clause plays a role not only in Udmurt, but in Komi-Zyryan and Meadow Mari as well. Finally, the notion of the so-called “juxtaposed possessive construction” will be touched upon since it is directly relevant to the deverbal compounds discussed in this paper.

3. The nominative–genitive alternation in the Udmurt *-m*-clauses

SERDOBOL'SKAJA ET AL. (2012) claim that in Beserman Udmurt, the syntactic position of the non-finite clause determines the case-marking of the subject. In Beserman Udmurt, nominative subjects are allowed in adjunct clauses; see (6). In argument clauses, on the other hand, the subject must be either in the genitive or in the ablative, depending on the syntactic position of the non-finite clause (see section 2., footnote 6). Hence, in (7), nominative leads to ungrammaticality, and the only possible case for the subject is the ablative. The examples provided in the traditional grammars of Standard Udmurt also demonstrate this, see VAHRUŠEV ET AL. (1974: 153–156) (this fact is mentioned by SERDOBOL'SKAJA ET AL. 2012, too).

(6) Beserman Udmurt (SERDOBO'LSKAJA ET AL. 2012, ex. (119a))

[*Ataj lăkt-em*] *bere š'iš'k-o-m*.

father come-NF after eat-FUT-1PL

‘We will eat after dad has come (home).’

(7) Beserman Udmurt (SERDOBOL'SKAJA ET AL. 2012, ex. (102))

Mon až-'i [*ataj-lăš'*] / **ataj ulč'a-t'i*

I see-PST[1SG] **father-ABL** **father** street-PROL

măn-em-ze].

go-NF-3SG.ACC

‘I saw dad walking on the street.’ / ‘I saw how/that dad was walking on the street.’

GEORGIEVA – ÓTOTT (2016) pursue a similar line of argumentation: they claim that in argument position, agreement is always marked on the non-finite

predicate and the subject bears the genitive/ablative.⁷ In this study, only object clauses like (7) are investigated; other argument clause types are left out. Interestingly enough, possible counterexamples are attested (one of these is briefly discussed in GEORGIEVA – ÓTOTT 2016). The examples below were uttered by an Udmurt speaker from Tatarstan, but they were considered perfectly grammatical by other Udmurt speakers, too (these examples were included in a questionnaire filled out by nine native speakers of Udmurt who represent the main dialect groups of Udmurt: Northern, Central and Southern). In examples (8) and (9), the subjects of the non-finite clauses (*proverka* ‘examination’ and *čaj* ‘tea (water)’, respectively) do not bear the ablative and there is no agreement on the non-finite predicate, although the non-finite clauses are used as an object complement of the matrix clause.

(8) Udmurt (GEORGIEVA – ÓTOTT-KOVÁCS 2016: 63, ex. (28))

[*Proverka ortc-em-ez*] *vit'-ono.*
examination pass.by-NF-ACC wait-NEC
 ‘One has to wait for the examination to be over.’

(9) Udmurt (own fieldwork, spontaneous)

[*Čaj bjrekt-em-ez*] *vit'i-ško.*
tea boil-NF-ACC wait-PRS[1SG]
 ‘I am waiting for the tea (water) to boil.’

Additionally, I have found a similar example in a textbook. In this example, the subject of the non-finite clause is *kuaž* ‘weather’, which is often used as a subject of weather verbs. In this case it is the subject of the verb *džardjini* ‘to dawn’. Most notably, this non-finite clause occurs in argument position, but it does not show agreement on the non-finite predicate and its subject does not bear the ablative.

(10) Udmurt (KELMAKOV – HÄNNIKÄINEN 1999: 207)

[*Kuaž džard-em-ez*] *mon ej=ik* *šedj.*
weather dawn-NF-ACC I NEG.PST[1SG]=FOC feel[SG]
 ‘I did not even notice/realise that dawn had broken.’

Interestingly enough, SERDOBOL’SKAJA ET AL. (2012) present one Beserman Udmurt example that also seems to contradict the claim that nominative subjects are allowed only in adjunct clauses. In (11), *piń* ‘tooth’ corresponds to the subject of the non-finite predicate *viš'em* ‘being sick, hurting’. Despite the fact that the non-finite clause functions as an object complement of the matrix clause, its subject, *piń* ‘tooth’, does not bear the ablative (nor is agreement marked on the non-finite predicate). This superficially looks like a nominative subject (how-

⁷ However, GEORGIEVA – ÓTOTT (2016) argue that nominative leads to ungrammaticality in relative clauses, *pace* SERDOBOL’SKAJA ET AL. (2012).

ever, this example is not classified as having a nominative subject and *piñ* ‘tooth’ is not glossed as [NOM] in the original paper).

(11) Beserman Udmurt (SERDOBOL’SKAJA ET AL. 2012, ex. (3))

Tiñ pe [piñ viš'-em-me=no] ug
 well CIT **tooth** be.sick-NF-1SG.ACC=ADD NEG.PRS[1SG]
todi-š'kâ.
 know-PRS[SG]
 ‘Well, (from that time forth) I do not even know/remember (any) tooth
 pain, they say.’

The generalisation concerning the nominative–genitive alternation in Udmurt predicts that examples (8)–(10) should be ungrammatical. On the contrary, they were accepted by all of my consultants (although I did not work with Beserman speakers). The Beserman example presented above in (11) also remains a mystery. In what follows, I will try to prove that these sentences are not counterexamples to the generalisations made in the literature. This study deals only with non-finite clauses used as object complements in the matrix clause.⁸

4. Udmurt nominative subjects revisited

At first glance, examples (8)–(11) might be taken to suggest that nominative subjects are possible in Udmurt *-m*-clauses used as object complements of the matrix clause. In this section, I will provide a different analysis of these examples. My claim will be that in Udmurt, there are not only non-finite clauses, but also deverbal compounds. I will argue that the traditionally called nominative subjects are actually non-heads of compounds (Section 4.1.). This allows us to maintain the previous generalisations regarding the nominative–genitive alternation in Udmurt non-finite clauses. Additionally, I will try to provide a preliminary classification of the deverbal compounds in Udmurt (Section 4.2.).

⁸ An anonymous reviewer asks whether subject clauses follow the same pattern as object clauses. Based on my fieldwork, it seems that in subject clauses, agreement must be marked and the subject must bear the genitive; see example (3) in Section 2. Other types of argument clauses will be briefly discussed in 5.3. However, due to space limitations, this study cannot provide a detailed investigation of all argument clause types.

4.1. The nominative noun is the non-head of a compound

My claim is that in examples (8) and (9), we are not dealing with non-finite clauses, but rather with compounds. What evidence do we find in support of this claim? To begin with, the “subject” cannot be modified morphologically, for instance it cannot be pluralised:

- (12) Udmurt (own fieldwork, elicited)
 **[Proverka-os ortć-em-ez] vit'-ono.*
examination-PL pass.by-NF-ACC wait-NEC
 ‘One has to wait for the examinations to be over.’

Moreover, the “subject” cannot be a proper noun or a pronoun; see (13) and (14)–(15), respectively. This is unexpected in a clause. On the contrary, this is expected if we are dealing with a compound (since normally, the non-head of a compound cannot be a proper noun or a pronoun⁹):

- (13) Udmurt (own fieldwork, elicited)
 **Soos [Kol'a lįkt-em-ez] vit'-i-zį.*
 they **Kolya** come-NF-ACC wait-PST-3PL
 Intended: ‘They were waiting for Kolya to come.’
- (14) Udmurt (own fieldwork, elicited)
 **[Soos ortć-em-ez] vit'-ono.*
they pass.by-NF-ACC wait-NEC
 Intended: ‘One has to wait for them to be over.’
- (15) Udmurt (GEORGIEVA – ÓTOTT-KOVÁCS 2016: 63, ex. (27))
 **Soos [mon lįkt-em-ez] vit'-i-zį.*
 they **I** come-NF-ACC wait-PST-3PL
 Intended: ‘They were waiting for me to come.’

Further evidence in support of the compound analysis is that modifiers cannot intervene between the “subject” and the non-finite predicate, see (16).

- (16) Udmurt (own fieldwork, elicited)
 **[Proverka kall'en ortć-em-ez] vit'-ono.*
examination slow(ly) pass.by-NF-ACC wait-NEC
 Intended: ‘One has to wait for the examination to be over slowly.’

⁹ LÁSZLÓ FEJES (p. c.) has pointed out to me that sometimes the non-head can be a proper noun, for instance in the Hungarian compound *kossuth-szakáll* ‘newgate fringe’ (a fringe similar to Lajos Kossuth’s one). However, in this case, the proper noun is used metonymically. In example (13), the proper noun *Kol'a* and the non-finite predicate cannot be interpreted metonymically, i.e. in the sense of ‘arrival in Kolya style’; thus, the example is infelicitous. This intuition was also confirmed by one of my Udmurt consultants.

The “subject” does not pass the anaphora test, either. In (17), the finite relative clause is meant to refer to the “subject”, however, the sentence was considered infelicitous. This is exactly what we expect under the compound analysis since non-heads of compounds cannot be referred to anaphorically. Thus, finite relative clauses cannot modify only the non-head of the compound.

(17) Udmurt (own fieldwork, elicited)

**Mon viŕi-ško* [*proverka_i* *orté-em-ez*], *kud-ze_i*
 I wait-PRS[1SG] **examination** pass.by-NF-ACC **which-3SG.ACC**
Peŕa *kutsk-i-z*.
 Peter start-PST-3SG
 Intended: ‘I am waiting for the finish of that examination which Peter
 (has) started.’

Examples (12)–(17) can be corrected by using the corresponding genuine non-finite clauses, for instance, example (15) can be corrected with (5).

All of the above-mentioned tests have been discussed by FEJES (2005). In his dissertation, he deals with compounds in Finno-Ugric languages (Finnish, Estonian, Hungarian, Udmurt and Komi-Zyryan). His data are based on Standard Udmurt and Komi-Zyryan, as well as elicitations from native speakers of the two languages. FEJES (2005) observes that orthography should not be given too much attention in the Permic languages since compounds in these languages are very often written separately. He also observes that in the Permic languages, compounds do not necessarily have a single stress (despite the fact that stress deletion is usually considered of the hallmarks of compounds). However, he claims that in the Permic languages, compounds can be clearly distinguished with the help of the above-mentioned morphological and syntactic criteria.

An additional criterion is whether the “subject” can be modified by an adjective or not (this diagnostic has been discussed by FEJES 2005 as well). If the deverbal compound hypothesis is on the right track, we would expect that the “subject” would not be modifiable. However, this test turned out to be quite problematic during my fieldwork. First of all, it is sometimes hard to find adjectives that undoubtedly modify only the “subject”, i.e. the non-head of the compound, and not the compound as a whole. If the adjective clearly modifies the non-head, my consultants generally rejected the sentences (or considered them semantically/pragmatically odd). Hence, I conclude that the non-head cannot be modified, although this test seems rather problematic and not fully applicable.

An anonymous reviewer suggests an additional test, namely whether particles can intervene between the head and the non-head of the compound. Below, I tested sentences with the polar question marker *-a*.¹⁰ In compounds, we would

¹⁰ Following ARKHANGELSKIY (2014), I assume that the question marker is a clitic.

expect the question marker to appear after the head, and not after the non-head. This prediction is borne out – example (18b) is ill-formed:

(18) Udmurt (own fieldwork, elicited)

- a) [*Proverka ortć-em-ez=a*] *vit'-ono*.
examination pass.by-NF-ACC=Q wait-NEC
- b) **[Proverka=a ortć-em-ez]* *vit'-ono*.
examination=Q pass.by-NF-ACC wait-NEC
 ‘Does one have to wait for the examination to be over?’

Based on these tests, I will conclude that in examples (8) and (9), we are dealing with a deverbal compound whose non-head corresponds to the subject argument of the verb. I assume that in this case, however, this argument is not active syntactically, i.e. we are not dealing with a nominative subject.

Several questions need to be answered with respect to the examples presented in this section. Most importantly, clarification is needed as to what kind of compounds we are dealing with. I will address these issues in the next subsection.

4.2. Deverbal compounds in Udmurt

If we assume that in (8)–(11) we find compounds rather than non-finite clauses, the immediate question that arises is that of what kind of compounds we are dealing with. Moreover, it should be discussed what their distribution is with respect to the distribution of the non-finite clauses. By saying this, I assume that Udmurt uses both deverbal compounds and non-finite clauses as object complements of the matrix verb, but they may not have the same meaning and the same syntactic distribution. In this section, I will discuss FEJES’ (2005) observations about Permic compounds. I will also make a comparison with the compounds in Hungarian (based on KIEFER 2000).

Firstly, it must be examined whether we are dealing with a synthetic compound or not.¹¹ Synthetic compounds, such as English *truck driving* or *truck driver*, have been extensively investigated but still remain one of the most controversial topics in linguistics (see SELKIRK 1982, SPENCER 2000, BOOIJ 2005 among very many others). One of the diagnostics is whether the non-head is obligatory or not. For instance, as pointed out by FEJES (2005: 157), the Hungarian *regényíró* ‘novelist’ can be interpreted as either (19a) or (19b):

(19) Hungarian (FEJES 2005: 157)

- a) $[[regény]_N + [író]_N]_N$
 $[[novel]_N + writer]_N$

¹¹ Synthetic compounds are sometimes called “verbal compounds”.

- b) [[[regény]_N + [ír]_V] + ó]_N
 [[[novel]_N + [write]_V] + er]_N

With regard to this criterion, the Udmurt *proverka ortćem* ‘the passing/happening of the examination’ looks like a potential candidate for being categorised as a synthetic compound. The head of the compound *ortćem* cannot occur on its own.¹² The same holds for *bjrektem* in *ćaj bjrektem* ‘tea (water) boiling’ and for *višem* in *piń višem* ‘tooth pain’ – they cannot be used without the non-head.¹³ Thus, we can conclude that these are indeed synthetic compounds.

In synthetic compounds, the non-head satisfies an argument of the basic verb. Moreover, in the classic examples of synthetic compounds, such as *truck driving* or *tree removal*, the non-head corresponds to the object/internal argument of the verb. In the Udmurt examples in (8)–(11), on the other hand, the non-head is the sole argument of the verb. However, the verbs *ortćijnj* ‘to pass (by), to happen, to be over’, *bjrektijnj* ‘to boil’ and *višijnj* ‘to be sick’ are unaccusative verbs, and their sole argument is an internal argument rather than an external one. Hence, their sole argument corresponds to the object argument of a transitive verb.¹⁴

At this point, I will draw a parallel with Hungarian. KIEFER (2000: 553) postulates the following rule for the formation of deverbal compounds in Hungarian: the thematic role of the non-head must be patient. This means that either the object of a transitive verb or the subject of an intransitive verb can function as the non-head. Hence, Hungarian has synthetic compounds derived from transitive verbs whose non-head corresponds to the object; see the examples below in (20). These are similar to English *truck driving*.

(20) Hungarian (KIEFER 2000: 550, ex. (38a))

- a) *levélírás* ‘letter-writing’
 b) *újságotlás* ‘newspaper-reading’
 c) *ebédfőzés* ‘lunch-cooking’

¹² In fact, it can, but in this case it has a lexicalised meaning, namely ‘the past’, or as participial form ‘past’, but it cannot occur on its own in the sense of ‘happening, passing (by)’.

¹³ The words *ortćem*, *bjrektem* and *višem* can be used in isolation as evidential verb forms of the verbs *ortćijnj* ‘to pass (by), to happen, to be over’, *bjrektijnj* ‘to boil’ and *višijnj* ‘to be sick’. The evidential verbs have grammaticalised from the past participle (which is homonymous with the deverbal noun, see section 2.). In my opinion, this is one of the reasons why speakers cannot interpret the deverbal nouns without their non-heads – they are too “overloaded” and thus, uninterpretable without a context.

¹⁴ An anonymous reviewer points out the similarity of the Udmurt deverbal compounds with English adjectival passives such as *frost-bitten*, *expert-tested* and *horse-drawn*.

Additionally, Hungarian deverbal compounds can be derived from intransitive verbs with the subject functioning as the non-head of the compound. KIEFER (2000: 548) provides the following example, which is ungrammatical in English (21a) but perfectly grammatical in Hungarian (21b):

(21) Hungarian (KIEFER 2000: 548, ex. (34a))

- a) **Leaf-falling makes a big mess.*
 b) *A lombhullás nagy szemét-tel jár.*
 the leaf.falling big garbage-INS go.together[PRS.3SG]
 ‘Leaf-falling goes together with a lot of garbage.’

He also observes that deverbal compounds derived from intransitive verbs fall into the following classes:

(22) Hungarian (KIEFER 2000: 547, ex. (31))

- a) *gyermeksírás* ‘child-crying’
 b) *kutyaugatás* ‘dog-barking’
 c) *hóesés* ‘snow-falling’
 d) *orgonavirágzás* ‘lilac-blossoming’
 e) *harangzúgás* ‘bell-pealing’
 f) *parasztlázadás* ‘agrarian riot’

KIEFER (2000: 553) claims that among these six compound types, only (22b–e) are productive. Udmurt has similar compounds. Examples (23a–c) correspond to (22b–d), respectively. I argue that these are compounds because they can be used as object complements in the same way as examples (8)–(10) (i.e. without agreement on the non-finite predicate and the “subject” being in the nominative).

(23) Udmurt¹⁵

- a) *učj k̄jrdđža-m*
 nightingale sing-NF
 ‘nightingale-singing’
 b) *šundj pišt-em*
 sun shine-NF
 ‘sunshine’
 c) *l̄em kiśma-em / šaśkajaśk-em*
 birdcherry ripen-NF blossom-NF
 ‘birdcherry-ripening/blossoming’

At this point, I would like to revisit the Beserman example presented in (11), which is repeated in (24) below for convenience.

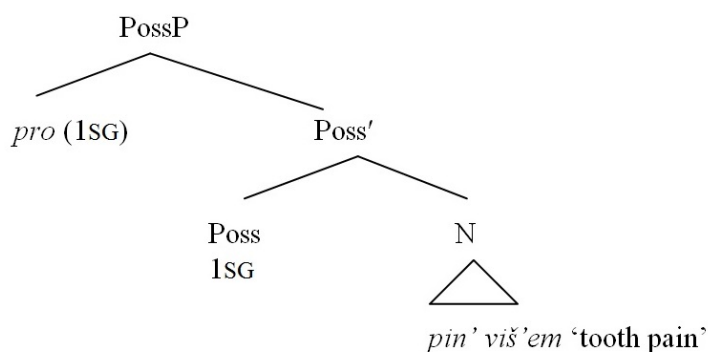
¹⁵ Example (23a) was taken from EDYGAROVA (2010: 51).

(24) = (11) Beserman Udmurt (SERDOBOL'SKAJA ET AL. 2012, ex. (3))

Tiń pe [piń viš'-em-me=no] ug
 well CIT **tooth** be.sick-NF-1SG.ACC=ADD NEG.PRS[1SG]
todi-š'kâ.
 know-PRS[SG]
 'Well, (from that time forth) I do not even know/remember (any) tooth
 pain, they say.'

I suggest that *piń viš'em* 'tooth pain' is a compound. Evidence in favour of this analysis comes from the agreement on the non-finite predicate. If (24) were a non-finite clause with an overt subject, i.e. *piń* 'tooth', we would expect the subject to be in the ablative and we would also expect to find 3SG agreement on the non-finite predicate. However, the agreement on *piń viš'em* 'tooth pain' is 1SG. My explanation is that the deverbal compound is possessed, or, in other words, there is a covert 1SG possessor that the possessee, i.e. the compound *piń viš'em* 'tooth pain', agrees with (see (25)). Recall that the genuine non-finite clauses (as in example (3) and (5)) also behave like possessive constructions in which the possessor must correspond to the subject. Crucially, in (24), the possessor does not correspond to the subject, which means that *piń viš'em* 'tooth pain' is possessed. Hence, it cannot be a non-finite clause, but is rather a deverbal compound (since deverbal nouns can be possessed). If *piń viš'em* 'tooth pain' is a deverbal compound, then *piń* 'tooth' is the non-head of the compound rather than a subject.

(25) Possessed deverbal compound



Hungarian has similar compounds, for instance *fogfájás* 'tooth + hurting = tooth pain', *szívdobogás* 'heart + beating = heart beat'. Moreover, these compounds can be possessed in the same way as their Udmurt counterparts: it is perfectly fine to say, *a fogfájás-om* 'the tooth+hurting-1SG = my tooth pain', etc.

However, Udmurt differs from Hungarian since the *-m*-suffix cannot form synthetic compounds from transitive verbs with their object functioning as the non-head. How are such compounds derived in Udmurt? FEJES (2005: 157–160)

discusses synthetic compounds in the Permic languages and divides them into two groups: the *truck-driver* and the *truck-driving* type of compounds. Concerning the *truck-driving* type of compounds, he observes that they are formed with the suffix *-em* in Komi-Zyryan and with the suffix *-n* in Udmurt. He also argues that in both languages, there are non-finite clauses (syntactic constructions in his terms) formed with the same suffixes, cf. (26) and (27). In compounds, the non-head corresponds to the object of the verb, see (26), while in non-finite clauses like (27), the genitive-marked noun (*oš/gondjir* ‘bear’ in Komi-Zyryan and Udmurt, respectively) corresponds to the subject of the non-finite clause.

(26) Compounds in Komi-Zyryan and Udmurt (FEJES 2005: 158)

- | | | | |
|----|----------------|----------------|-------------|
| a) | <i>oš</i> | <i>kjĕm</i> | Komi-Zyryan |
| | bear | hunt-NF | |
| b) | <i>gondjir</i> | <i>ulʹlan</i> | Udmurt |
| | bear | hunt-NF | |
| | | ‘bear-hunting’ | |

(27) Non-finite clauses in Komi-Zyryan and Udmurt (FEJES 2005: 159)

- | | | | |
|----|--------------------|----------------------|-------------|
| a) | <i>oš-len</i> | <i>kjĕm</i> | Komi-Zyryan |
| | bear-GEN | hunt-NF | |
| b) | <i>gondjir-len</i> | <i>ulʹa-n-ez</i> | Udmurt |
| | bear-GEN | hunt-NF-3SG | |
| | | ‘the bear’s hunting’ | |

In his dissertation, FEJES (2005) does not discuss the Udmurt *-m*-compounds (the reason for this is that the *-n* deverbal noun suffix has more nominal traits, and, moreover, he considers *-m* a participle, LÁSZLÓ FEJES (p. c.)). I will tentatively propose that Udmurt uses both the *-m* and the *-n* suffixes for compound derivation and that they are in complementary distribution: the suffix *-m* derives synthetic compounds from intransitives (probably only unaccusatives) with their subject as a non-head, as exemplified by (8)–(11), while the suffix *-n* derives synthetic compounds from transitive verbs with their object as a non-head as in (26b).¹⁶ In this paper, I do not aim at proposing a particular theoretical account of the Udmurt deverbal compounds; this question is left for further research.

The Udmurt synthetic compounds denote actions or processes. I assume that synthetic compounds can denote only simple events, but not complex events in GRIMSHAW’S (1990) terminology (the same has been argued for the Hungarian compounds in (22), see KIEFER 2000: 550). This means that they encode types of events rather than single concrete events. Non-finite clauses, on the other hand, always have an argument structure. Moreover, non-finite clauses denote

¹⁶ There are some lexicalised exceptions such as *kuarušon* ‘September (lit. leaf-falling)’ and *šundjipukšon* ‘sunset’.

actions or processes which are complex events (or sometimes simple events), but not result nouns.¹⁷

Both the *-m* and the *-n* suffixes can be used to derive result nouns as well (see PEREVOŠČIKOV 1962: 111–114, 117–118). In this case, they do not have an argument structure at all.¹⁸ Hence, they can occur on their own in the sentence, for instance, the result noun *ortćem* ‘(the) past’ can occur without any arguments (since it does not have any), however, under the simple event reading, i.e. ‘happening, passing’, it must have an argument, see example (8).

5. Possible extensions of the proposed analysis to Komi-Zyryan and Mari

In this section, I will summarise SERDOBOL’SKAJA’s (2008a) analysis of the nominative–genitive case alternation in Pechora Komi-Zyryan and Meadow Mari. I will point out some problems with her proposal and try to extend the compound analysis proposed for the Udmurt data to the Komi-Zyryan and Meadow Mari non-finite clauses. Additionally, I will discuss the relevance of the syntactic position the non-finite clause occupies in the matrix clause. My claim will be that it (possibly) influences the case-marking of the subject. Furthermore, I will briefly mention the so-called “juxtaposed possessive construction”, which is relevant to the deverbal compound analysis proposed in this study.

5.1. Nominative–genitive alternation in Pechora Komi-Zyryan and Meadow Mari

SERDOBOL’SKAJA (2008a) claims that the choice between nominative and genitive in Pechora Komi-Zyryan and Meadow Mari is motivated by several factors: transitivity, thematic role and animacy. Additionally, SERDOBOL’SKAJA (2008a) points out two more factors that seem to be relevant in the case of Meadow Mari, namely the referential status and discourse features of the subject. We can conclude that some of these factors have to do with argument structure (transitivity, thematic roles), while others are sensitive to semantic/ pragmatic features (referentiality, discourse features). However, SERDOBOL’SKAJA (2008a) ob-

¹⁷ My anonymous reviewer raised the question of whether the *-m*- and *-n*-headed non-finite clauses are in complementary distribution, similarly to the deverbal compounds. The answer is probably yes. Evidence in favour of this is the fact that postpositions select for either an *-m*- or an *-n*-headed non-finite clause.

¹⁸ FEJES (2005: 160) also mentions that the non-head of the *-n*-compound might correspond to the subject if the deverbal noun denotes a result noun, for example *keć šijon* ‘rabbit food’ (similar example has been mentioned for Komi-Zyryan in SERDOBOL’SKAJA 2008b, ex. (30)). In this case, I would rather argue that we are dealing with an N+N compound since the head *šijon* ‘food’ can occur without its non-head.

serves that these factors do not follow a very strict rule. Moreover, she notices that the nominative subjects are significantly rarer than the genitive-marked ones. Below, I will present the impact of the individual factors separately (the discussion follows SERDOBOL'SKAJA's (2008a) argumentation, however, some remarks are made regarding the data).

Firstly, SERDOBOL'SKAJA (2008a) argues that in Pechora Komi-Zyryan, transitive non-finite predicates must have a genitive-marked subject, while nominative subjects are ungrammatical (see example (28)).

(28) Pechora Komi-Zyryan (SERDOBOL'SKAJA 2008a, ex. (13))

mamə-lən / **mamə məs-sə* *liš't-əm*
mother-GEN mother cow-3SG.ACC milk-NF
 'mom's milking of the cow'

SERDOBOL'SKAJA (2008a) claims that in Meadow Mari, nominative subjects are sometimes possible with transitive non-finite predicates, as shown in example (29). However, she argues that in example (30), nominative leads to ungrammaticality.

(29) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (14))

[*mland-əm lum petər-me*] *okna gəč koj-eš*.¹⁹
 ground-ACC **snow** cover-NF window from be.visible-PRS.3SG
 'It can be seen from the window that the snow has covered the ground.'

(30) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (15))

ava-že [*joča-n* / **joča peledəš kūrəšt-m-əm*] *onč-a*.
 mother-3SG **child-GEN child** flower pick-NF-ACC watch-PRS.3SG
 'The mother is watching the child pick flowers.'

SERDOBOL'SKAJA (2008a) does not provide an explanation for the contrast between (29) and (30). As far as I can see, two factors appear to be relevant, namely thematic role and animacy (see the discussion below). In (29), the subject is inanimate and its thematic role is non-agentive, while in (30), the subject is animate and its thematic role is agentive. The problem is that these examples are not minimal pairs, and hence, we cannot conclude what determines the case-marking of the subject.

SERDOBOL'SKAJA (2008a) claims that intransitive non-finite predicates allow for nominative–genitive alternation in both Meadow Mari and Pechora Komi-Zyryan. Moreover, she argues that if the non-finite predicate is intransitive, the choice between the two cases seems to correlate with the thematic role of the subject. Agent-like subjects (agent, experiencer, effector) are generally encoded in the

¹⁹ JEREMY BRADLEY (p. c.) mentions that in literary Meadow Mari, the non-finite verb should be *petərə-me*.

genitive, whereas patient-like subjects (patient, theme) usually bear the nominative. This is illustrated by the following examples from Komi-Zyryan and Meadow Mari, respectively. In example (31a) and (32a), the subject has an agent-like thematic role, whereas in (31b) and (32b), it has a patient-like thematic role (according to SERDOBOL'SKAJA 2008a, the subject in (31b) and (32b) is a theme).²⁰

(31) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (16a, b))

- a) [*vara Pe'ta den maša-n kuršt-əm-əšt-əm*] *šarn-em*.²¹
 later Peter with **Masha-GEN** dance-NF-3PL-ACC remember-PRS.1SG
 'I remember that later (at the party) Peter and Masha danced.'
 b) *Ava [ergə-že sajan tunem-mə-lan] kuan-a*.
 mother **son-3SG** well study-NF-DAT be.happy-PRS.3SG
 'The mother is happy about her son studying well.'

(32) Pechora Komi-Zyryan (SERDOBOL'SKAJA 2008a, ex. (17a, b))

- a) *me pomnit-ə [goš't-jas-liš' və-əm]*.
 I remember-NPST[1SG] **guest-PL-ABL** come-NF
 'I remember that guests visited [us].'
 b) *me až'-a [kaga už'-əm]*.
 I see-NPST[1SG] **child** sleep-NF
 'I am seeing how/that the child is sleeping.'

The following tables are taken from SERDOBOL'SKAJA (2008a) and summarise the usage of genitive and nominative with respect to the thematic role of the subject. We can see that in both languages, agent-like subjects prefer the genitive. On the other hand, patient-like subjects show an alternation with respect to their case-marking. However, note that the ratio between genitive-marked and nominative-marked patient-like subjects in Meadow Mari and Komi-Zyryan is different.

²⁰ An anonymous reviewer points out that 'study' in (31b) is an unergative verb; hence, its subject is not patient-like. In my opinion, the verb 'study' can be interpreted in the sense of 'becoming literate'. In this case, the subject is probably not an agent. In fact, ASZTALOS (2010) has put forward a similar proposal for the Udmurt verb *djšetskjni* 'to study'. This is supported by the fact that this verb can be passivised, and as ASZTALOS (2010) argues, passivisation in Udmurt targets only internal arguments (i.e. direct objects of transitive verbs or sole arguments of unaccusative verbs). JEREMY BRADLEY (p. c.) mentions that the Meadow Mari verb can exhibit a number of argument structures, for instance it can have a direct object. In (31b), however, the non-finite verb does not have a direct object. Since SERDOBOL'SKAJA (2008a) does not provide evidence in favour of her claims, we cannot conclude whether the subject of the Meadow Mari verb is an agent or a theme. However, it is noteworthy that the Russian translation of this example contains a reflexive verb, namely *učit'sja* 'to study'.

²¹ ANASTASIIJA SAJPAŠEVA (p. c.) notes that the verb stem should be *kušt-* instead of *kuršt-*.

Table 1. Meadow Mari

Case-marking of the subject	Agent-like subjects	Patient-like subjects
Gen	87.64%	68.35%
Nom	12.36%	31.29%

Table 2. Komi-Zyryan

Case-marking of the subject	Agent-like subjects	Patient-like subjects
Gen	94.36%	50%
Nom	5.64%	50%

The third factor in play is animacy. SERDOBOL'SKAJA (2008a) argues that animate subjects, especially if they are [+human], are typically encoded in the genitive, while inanimate subjects are more likely to bear the nominative. This is illustrated by the following examples:

(33) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (18) and (19))²²

a) *ača-m [mājən / *māj lüd-m-əm] ogeš jörate.*
 father-1SG **I.GEN** **I** fear-NF-ACC NEG.PRS.3SG like
 'My father does not like it when I am scared.' / 'My father does not like my fear.'

b) *māj [avtobus tol-m-əm] vuč-em.*
 I **bus** come-NF-ACC wait-PRS.1SG
 'I am waiting for the bus to come.'

(34) Komi-Zyryan (SERDOBOL'SKAJA 2008a, ex. (20) and (21))

a) *me až'ill-i [vaš'a-liš' ivla-ti ko'ərt-əm].*
 I see-PST[1SG] **Vasya-ABL** street-PROL run-NF
 'I saw Vasya running on the street.'

b) *me až'-a [š'už' lebž'-əm].*
 I see-NPST[1SG] **owl** fly-NF
 'I saw (the/an) owl flying.'

Table 3 and 4 summarise the use of genitive and nominative with different types of subjects in Meadow Mari and Pechora Komi-Zyryan (both tables are taken from SERDOBOL'SKAJA 2008a). SERDOBOL'SKAJA (2008a) argues that the impact of animacy on the choice of case-marking is not simply based on the [=animate] feature. Instead, she concludes that there are different types of noun phrases as indicated in the columns of the tables below, and these different types of noun phrases allow for the genitive–nominative alternation to varying extents.

²² JEREMY BRADLEY (p. c.) suggests that in example (33), the non-finite verb should be *lüd-m-em* 'fear-NF-1SG'. In this case, the underlying form should be *lüd-m-em-əm* 'fear-NF-1SG-ACC' but due to haplology, the accusative marker is usually dropped. However, SERDOBOL'SKAJA's glossing suggests that in this example, it must have been the other way around – the agreement marker is dropped and the accusative case marker is present.

Table 3. Meadow Mari

	Personal pronouns, proper nouns	Common nouns denoting humans	Common nouns denoting animals	Common nouns denoting inanimates
Genitive	95%	93%	77%	43%
Nominative	5%	7%	23%	57%

Table 4. Pechora Komi-Zyryan

	Personal pronouns, Proper nouns, common nouns denoting humans	Common nouns denoting animals	Common nouns denoting inanimates
Genitive	91%	60%	36%
Nominative	9%	40%	64%

SERDOBOL'SKAJA (2008a) also provides combined tables regarding the thematic role and the type of subject and concludes that both factors are relevant in the two languages (but without claiming that either of these factors is determined by the other).

In the case of Meadow Mari, SERDOBOL'SKAJA (2008a) suggests two more factors, namely the referential status and discourse features of the subject. First, she claims that genitive subjects are interpreted as specific (35a), while nominative subjects are interpreted as non-specific (35b).²³

(35) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (24a, b))

a) [*rvez-ən* *türvöč-m-əž-əm*] *kol'-əm*.²⁴
young.man-GEN sneeze-NF-3SG-ACC hear-PST.1SG
 'I heard the young man sneeze.'

b) [*rveze* *türvöč-m-əm*] *kol'-əm*.
young.man sneeze-NF-ACC hear-PST.1SG
 'I heard a young man sneeze.' / 'I heard the sneezing of a young man.'

²³ The context of these examples, however, is not provided in the original paper. Hence, except for the difference in the translation line, we do not have direct evidence that the nominative subject *rveze* 'young man' differs in referentiality from its genitive-marked counterpart. An anonymous reviewer points out that example (35b) is problematic in the view that animate subjects tend to be encoded in the genitive. As far as I can see from SERDOBOL'SKAJA's (2008a) argumentation, example (35b) would belong to those 7% of nominative-marked common nouns denoting humans, see Table 3. Additionally, the anonymous reviewer suggests that it would be more interesting to illustrate the differences in referentiality with inanimate subjects, however such examples are not provided in SERDOBOL'SKAJA's (2008a) paper.

²⁴ The literary form of the verb stem should be *türvəč* (JEREMY BRADLEY p. c.).

Secondly, SERDOBOL'SKAJA (2008a) argues that in Meadow Mari, the discourse features of the subject might influence its case-marking. In the following example (36), the subject *U'ani* denotes a human, moreover, it is a proper noun, but nevertheless, it bears the nominative. SERDOBOL'SKAJA explains this with the fact that this sentence was uttered in a context describing the life circumstances, but not describing Ulyana's death. She suggests that genitive is preferred with subjects that are relevant with respect to the narrative flow.

- (36) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (25))
*južgunam [u'ani kol-m-əlan]... nočko lum lum-ən.*²⁵
 sometime **Ulyana** die-NF-DAT wet snow snow-PST.3SG
 'Sometime, after Ulyana died, sleet was falling.'

Although I find SERDOBOL'SKAJA's (2008a) observations very interesting and useful, there are a few remarks I would like to make. First of all, it is questionable whether the above-mentioned criteria can be discussed separately. As JEREMY BRADLEY (p. c.) pointed out to me, animacy tends to bias the other factors. I would like to emphasise the fact that the examples presented above do not constitute minimal pairs with respect to the single factors. For instance, the explanation provided for example (28) is that this sentence shows that transitive non-finite predicates do not allow for nominative subjects. However, the subject in (28) is animate, so we could say that it cannot bear the nominative since it is animate. A similar problem arises with examples (29) and (30). Moreover, I believe that there are some other morphological and syntactic criteria which have been left unnoticed. Firstly, pronouns tend to have different behaviour with respect to case-marking than nouns (this was confirmed by JEREMY BRADLEY as well). However, Table 3 gives a slightly misleading impression since column two suggests that 5% of the personal pronouns, proper nouns, common nouns denoting humans bear the nominative. In a subsequent paper, SERDOBOL'SKAJA ET AL. (2012: 416), it is clarified that pronouns cannot bear the nominative in Meadow Mari non-finite clauses. In the next subsection, I will try to present some pieces of evidence that the compound analysis proposed for Udmurt could possibly be extended to Meadow Mari and Komi-Zyryan.

²⁵ As JEREMY BRADLEY and TAT'JANA EFREMOVA (p. c.) have pointed out to me, the verbal stem should be *kolə* instead of *kol*. Moreover, the non-finite predicate should be segmented in the following way: *kolə-mə-lan* 'die-NF-DAT'. The sentence was not complete in the original paper (as indicated by the dots). ANASTASIJA SAJPAŠEVA and TAT'JANA EFREMOVA (p. c.) could not reconstruct it because of the lack of context. JEREMY BRADLEY (p. c.) suggests that some postpositions (mostly causal ones) assign dative to their complement. However, these would be semantically unacceptable in this context.

5.2. Deverbal compounds in Komi-Zyryan and Meadow Mari?

I suggest that the Komi-Zyryan and Meadow Mari data presented in SERDOBOL'SKAJA (2008a, 2008b) and SERDOBOL'SKAJA ET AL. (2012) should be reconsidered with respect to the possibility of compounding. By saying this, I do not claim that all of the nominative subjects are non-heads of compounds. As the data presented in these studies suggest, Komi-Zyryan and Meadow Mari allow for nominative subjects even in cases where Udmurt does not. However, there are some Komi-Zyryan and Meadow Mari examples that look like potential candidates for being labelled as compounds. Moreover, some of the observations made by SERDOBOL'SKAJA (2008a) actually fit quite nicely with the observations concerning the compounds.

First of all, recall that in Pechora Komi-Zyryan and in Meadow Mari, pronouns and proper names almost always bear the genitive, and compare this with the Udmurt data in (13)–(15). Recall also that the nominative subjects in Pechora Komi-Zyryan and Meadow Mari are usually inanimate common nouns. We also saw that in Hungarian, and probably also in Udmurt, the productive compound patterns involve an inanimate common noun as a non-head, cf. (22b–e) and (23b, 23c) above. Moreover, SERDOBOL'SKAJA (2008a) argues that nominative subjects are interpreted as non-referential/non-specific. This observation fits with the fact that the non-head of a compound is interpreted as generic (cf. FEJES 2005: 155). A final clue is given by SERDOBOL'SKAJA ET AL. (2012: 415–416), who add one more factor determining the nominative–genitive alternation in Pechora Komi-Zyryan and Meadow Mari, namely the strict adjacency between the nominative subject and the non-finite predicate. They observe that nominative subjects are much rarer if a direct/indirect object/adjunct intervenes between the subject and the non-finite predicate. Moreover, there are quite a few Meadow Mari and especially Komi-Zyryan examples in which the “non-finite clause” consists only of the subject and the non-finite predicate. This looks very similar to the Udmurt compounds presented in (23). I consider the following examples very good candidates for compounds (SERDOBOL'SKAJA 2008a, ex. (5), (17b), (19), (21), (24b); SERDOBOL'SKAJA 2008b, ex. (10), (30), (35); SERDOBOL'SKAJA ET AL. (2012), ex. (81), (105), (106), (111), (112)). Some of these were presented in subsection 5.1.; here I will add one more example, which looks exactly the same as the Udmurt compound in (23a):

(37) Pechora Komi-Zyryan (SERDOBOL'SKAJA 2008a, ex. (5))

me kill-i [kolipkaj š'il-əm].
 I hear-PST[1SG] **nightingale** sing-NF
 'I heard the nightingale's singing.'

SERDOBOL'SKAJA (2008a) has also claimed that nominative subjects are prohibited in the case of transitive non-finite predicates (this rule is very strict in

Komi-Zyryan, and less strict in Meadow Mari). This fits nicely with the observation that in Udmurt, the non-head of a deverbal compound corresponds to either the object argument of a transitive verb (in the case of the compounds formed with the suffix *-n*, as discussed by FEJES 2005) or the sole argument of an unaccusative verb (the compounds formed with the suffix *-m* dealt with in this paper). Crucially, we find neither compounds whose non-head would correspond to the subject argument of a transitive verb, nor compounds in which both arguments of the transitive verb are present (see KIEFER 2000: 550 on the same point in the case of Hungarian). FEJES (2005) has claimed that the Komi-Zyryan compounds derived from transitive verbs, i.e. the *truck-driving*, are formed with the suffix *-em*. It could be tentatively proposed that Komi-Zyryan, similarly to Udmurt, also makes use of *-em*-compounds derived from unaccusative verbs. The non-head of these compounds looks like a “nominative subject”, however, it is not a subject. Under this approach, SERDOBOL'SKAJA's (2008a) observation – that non-finite clauses whose predicates are transitive cannot have nominative subjects – falls out naturally since in this case compounds cannot be formed; only non-finite clauses can be used. This hypothesis, however, must be tested empirically with the diagnostics presented in subsection 4.1.

While discussing the Meadow Mari examples, JEREMY BRADLEY (p. c.) suggested that the compound analysis proposed for Udmurt in section 4. could be extended to Meadow Mari examples such as (35b), repeated here in (38b). He added that this analysis is also supported by the fact that noun > adjective conversion is very productive in Meadow Mari (and in Udmurt as well).

(38) = (13) Meadow Mari (SERDOBOL'SKAJA 2008a, ex. (24a, 24b))

- a) [*rvez-ən* *türvöč-m-əž-əm*] *kol'-əm*.
young.man-GEN sneeze-NF-3SG-ACC hear-PST.1SG
 'I heard the young man sneeze.'
- b) [*rveze* *türvöč-m-əm*] *kol'-əm*.
young.man sneeze-NF-ACC hear-PST.1SG
 'I heard a young man sneeze.' / 'I heard the sneezing of a young man.'

I applied the same tests described in section 4.1., namely pluralisation and modification of the nominative subject (the sentences were constructed by JEREMY BRADLEY). The results are not as clear-cut as in Udmurt, however. One of the informants accepted all of the elicited examples below, while the other suggested that the subject should be in the genitive. This is why I have marked these examples with the % sign (it is worth mentioning that the two Mari consultants speak different varieties of the language, which might explain the different judgements). Clearly, the question requires further research; below I will present the preliminary results. In example (39), the subject is in the plural, in (40), there

is a modifier intervening between the subject and non-finite predicate, in (41), the subject is modified by a non-finite relative clause (participial clause):

(39) Meadow Mari (elicited examples)

%[rveze-vlak türväč-m-əm] kol'-əm.
 young.man-PL sneeze-NF-ACC hear-PST.1SG
 'I heard the sneeze of young men.'

(40) Meadow Mari (elicited examples)

%[rveze čot türväč-m-əm] kol'-əm.
 young.man loudly sneeze-NF-ACC hear-PST.1SG
 'I heard the loud sneeze of a young man.'

(41) Meadow Mari (elicited examples)

%[[ves pölem-äšte kijä-še] rveze türväč-m-əm]
 other room-INES lie-PTCP.ACT young.man sneeze-NF-ACC
 kol'-əm.
 hear-PST.1SG
 'I heard the sneeze of a young man who was lying in the other room.'

Another interesting example is (42). In my view, this example shows that compounding is recursive, since the deverbal compound *kuku murəmo* 'cuckoo-singing' forms a compound with the noun *jük* 'sound'.

(42) Meadow Mari (SERDOBOL'SKAJA ET AL. 2012, ex. (81))

[Kuku mur-əmo] jük šokt-a.²⁶
 cuckoo sing-NF sound be.heard-PRS.3SG
 'You can hear the cuckoo sing (lit. You can hear the sound of cuckoo-singing).'

It should be mentioned that one might analyse *kuku murəmo* 'cuckoo-singing' as a non-finite relative clause, i.e. a participial clause (see section 2.). However, if it were a participle, it would be unclear what syntactic position it relativises. The translations of the sentence suggest that this is the possessor (*the sound of the cuckoo-singing*), but in their study of non-finite relative clauses, BRYKINA – ARALOVA (2012) claim that relativising the possessor is almost impossible in Meadow Mari. Interestingly enough, similar examples can be found in Udmurt, too. KALININA (2001: 26) presents examples like [*punĭ ut-em*] *kuara* 'the sound of the dog-barking' in which the deverbal compound *punĭ utem* 'dog barking' forms a compound with the noun *kuara* 'sound'.

Clearly, not all of the Meadow Mari and Komi-Zyryan nominative subjects can be accounted for with the compound analysis that I have proposed for Udmurt. In the next subsection, I will point out an additional criterion that seems

²⁶ The segmentation of the non-finite verb should be *murə-mo* (JEREMY BRADLEY p. c.).

to bear relevance to the case alternation, namely the syntactic position of the non-finite clause.

5.3. The syntactic position of the non-finite clause

I suggest that the syntactic position of the non-finite clause should be taken into account. SERDOBOL'SKAJA (2008a) draws conclusions analysing both adjunct and argument non-finite clauses; the statistics in Tables 1–4 are also based on both types of clauses. However, I doubt whether the non-finite clauses used in these two syntactic positions have the same (morpho)syntax. This can be seen clearly in Udmurt (cf. (2)–(3)). The case-marking rules in Komi-Zyryan and Meadow Mari probably differ slightly from the rules in Udmurt. Nevertheless, I believe that the nominative subjects are more frequent in adjunct clauses. Recall example (36) from Meadow Mari, which was said to exemplify the fact that the discourse features of the subject might determine its case-marking. However, it is not taken into account that this is an adjunct clause. Without disputing the importance of the discourse features, I believe that it might be the syntactic position of the non-finite clause that determines the choice between nominative and genitive.

Additionally, I suggest that it might be useful to divide argument clauses into different groups. SERDOBOL'SKAJA ET AL. (2012) deal with argument clauses only. The problem is that it might turn out that different argument clauses behave differently. For instance, in (43a), we find a non-finite clause used as an object complement in the matrix clause, whereas in (43b), the matrix verb 'to fear' takes a PP complement. These examples are said to demonstrate how the referential status of the subject influences its case-marking. However, the examples do not constitute a minimal pair. Moreover, the non-finite clause in (43b) might turn out to be a deverbal compound.

(43) Meadow Mari (SERDOBOL'SKAJA ET AL. 2012, ex. (117a, b))

a) [*Pij-ən šəl-əm pur-m-əž-əm*] *už-ən-am*.²⁷
 dog-GEN meat-ACC bite-NF-3SG-ACC see-PST-1SG
 'I saw the dog take a bite out of the meat.'

b) *Iza-m* [*pij opt-əmo*] *deč' lüd-eš*.
 elder.brother-1SG dog bark-NF from fear-PRS.3SG
 'My elder brother is afraid of the bark of dogs.'

I suggest the following argument types: a) subject, b) object, c) dative-marked complements (for instance, 'to be happy (about something)' has a dative complement in the three Finno-Ugric languages in question), d) elative-marked complements (for example, 'to be afraid (of something)'), and e) other postpositional complements (for instance, 'to talk/think about something'). Let me dem-

²⁷ The segmentation of the non-finite verb should be *pur-mə-žə-m* (JEREMY BRADLEY p. c.).

onstrate the importance of this division. In Udmurt, subject clauses tend to have genitive-marked subjects (see example (3) in section 2.). Udmurt has very strict rules for object clauses. In object clauses, agreement must be marked and the subject must bear the genitive or the ablative (except for the cases I consider compounds). However, dative complements are slightly different. The following example has been taken from the Turku–Izhevsk Corpus.²⁸ In (44), the agreement on the non-finite predicate is absent and the subject bears the nominative. It is hard to account for this example in terms of compounding since the subject is inflected with a possessive suffix.²⁹

(44) Udmurt (Turku Izhevsk Corpus/Kenesh/G/9:583)

[*Ni-l-iz* *vordsk-em-lij*] *šumpot-em* *intije...*
 daughter-3SG be.born-NF-DAT be.happy-NF instead

‘Instead of being happy about the fact that his daughter was born...’

Recall example (31b) from Meadow Mari in which the non-finite clause is used as a dative complement in the matrix clause and the subject of the non-finite clause bears the nominative. Could it be the case that dative complements behave differently from subject or object clauses? There are some other disputable examples in which the syntactic position of the non-finite clause may, in fact, be what determines the case-marking of the subject (SERDOBOL’SKAJA 2008a, ex. (16b), SERDOBOL’SKAJA ET AL. 2012, ex. (106), (107), (117b)).

I suggest that the Komi-Zyryan, Meadow Mari and Udmurt data should be reconsidered with regard to the compounding possibility, as well as with respect to the syntactic position of the non-finite clause. If both genitive and nominative can be used in one and the same syntactic environment, the difference between the two cases should be investigated. SERDOBOL’SKAJA’S (2008b) observations on the syntax of the nominative subjects can be a good starting point for further research. It should also be considered whether there is a correlation between the case-marking of the subject and the complex event vs. simple event reading of the non-finite clause.

5.4. Are juxtaposed possessive constructions compounds?

The structure of the non-finite clauses discussed in this paper is relevant with respect to the notion of the so-called “juxtaposed possessive construction”.

²⁸ The Turku–Izhevsk Corpus is available online at: <http://volga.utu.fi/portal/cgi-bin/login.cgi>. The transliteration of the quoted example is mine.

²⁹ I tested the acceptability of this example and interestingly, not all of my consultants accepted it. Below, I provide the original examples, although based on the elicitations, I would mark it with %.

It has been largely accepted in Finno-Ugric linguistics that possession can be expressed by simply juxtaposing two nouns. This is the so-called “juxtaposed possessive construction”, which is considered most archaic type of possessive construction in the Finno-Ugric languages (SEREBRENNIKOV 1964 among very many others). It has been stated that Permic languages have the juxtaposed possessive construction (CSÚCS 1990: 34, RÉDEI 1978: 94).

This term has been employed in recent studies as well (see EDYGAROVA 2010: 187–202). Edygarova divides the juxtaposed constructions into several subgroups, but claims that only two of them are (semantically) possessive, namely the *pukon kuk* ‘chair leg’³⁰ and the *učj ćirdem* ‘nightingale-singing’ types of juxtaposed construction. The latter type was discussed in this paper and it was shown that it could be analysed as a deverbal compound. The former type has been investigated by FEJES (2005). FEJES (2005: 153–156) demonstrates that these are actually N+N compounds: the “possessor” cannot be modified morphologically, it has generic meaning, it cannot be referred to anaphorically, no modifier can intervene between the “possessor” and the “possessee”, etc. FEJES (2005: 156) also points out that this question is particularly relevant from a historical perspective since the N+N compounds are said to originate from the juxtaposed possessive construction.

A recent study on the structure of the nominal phrase in Finno-Ugric languages in a minimalist framework (SIMONENKO – LEONT’EV 2012) has touched upon the issue, but without putting forward a clear analysis. SIMONENKO – LEONT’EV (2012: 318–324) mention that these constructions cannot be modified morphologically, nor can modifiers intervene between the juxtaposed elements, but they do not explicitly state that these are compounds. They sketch an analysis based on TOMIOKA (2006). Interestingly enough, TOMIOKA (2006) deals with V+V compounds in Japanese.

In this paper, I do not aim at clarifying how adequate the term “juxtaposed possessive construction” is from a historical point of view. What I consider very important is that this notion has been adopted into the description of non-finite clauses. For instance, it has been implicitly presupposed in SERDOBOL’SKAJA (2008a, 2008b). My personal intuition is that the term “juxtaposed possessive construction” has been used so widely because of the fact that these constructions (compounds) usually correspond to possessive constructions in Russian (although this does not necessarily mean that they are indeed possessive constructions). Indeed, it has been demonstrated in section 4. that the Udmurt *učj ćirdem* ‘nightingale-singing’ is probably a compound. In my view, the notion of the juxtaposed possessive construction (or juxtaposition in general) should be carefully revised firstly from a descriptive point of view regarding the individual

³⁰ This example was taken from FEJES (2005: 153).

Finno-Ugric languages, and then the question should be approached from a historical perspective. The theoretical account of these compounds/constructions is also a question for further research.

6. Summary

In this paper, I discussed the non-finite clauses headed by the suffix *-m* in three Finno-Ugric languages: Komi-Zyryan, Meadow Mari and Udmurt. These non-finite clauses can be used as relative clauses modifying nouns, adjunct clauses or argument clauses. It has been observed that the case-marking of the subject of the non-finite clause may vary: it can be either in the genitive or in the nominative. Previous research on Pechora Komi-Zyryan and Meadow Mari has shown that the choice between the two cases depends on several (mostly semantic and pragmatic) factors such as transitivity, thematic role, animacy and discourse features of the subject. On the other hand, it has been stated that in Beserman Udmurt, the main factor is the syntactic position of the non-finite clause. It has been claimed for Udmurt that in argument clauses, the subject of the non-finite predicate must bear the genitive. I presented Udmurt data that seem to contradict the previous statements since the subject was in the nominative. I suggested that these data actually fit the previous generalisations. These data point out a criterion that has not been taken into account in the description of the non-finite clauses, namely that Udmurt (and arguably also Komi-Zyryan and Meadow Mari) makes use of not only non-finite clauses, but also of deverbal compounds. Hence, what one might consider a nominative subject turns out to be the non-head of a deverbal compound. I also provided a preliminary description of the deverbal compounds in Udmurt. I argued that Udmurt has deverbal compounds derived from both transitive and intransitive verbs. I also tried to show whether this analysis is applicable to the Komi-Zyryan and Meadow Mari data presented in the literature. I presented some elicited Meadow Mari examples that partly supported the compound analysis. Moreover, I suggested that additional syntactic criteria should be taken into account in the description of the non-finite clauses, such as the syntactic position of the non-finite clause. In the last subsection, I briefly discussed the notion of the “juxtaposed possessive construction”, which has been widely adopted in Finno-Ugric linguistics. This term, however, faces difficulties if we assume that (at least some of) the juxtaposed possessive constructions are actually compounds. Since this question is of great relevance from both descriptive and historic perspective, it should be further investigated.

Abbreviations

ABL = ablative	NEC = necessitive
ADD = additive (particle)	NF = non-finite
ACC = accusative	NPST = non-past
CIT = citation (particle)	PTCP.ACT = active participle
DAT = dative	PL = plural
FOC = focus (particle)	PROL = prolativ
FUT = future	PRS = present
GEN = genitive	PST = past
ILL = illative	Q = question (particle)
INES = inessive	SG = singular
INS = instrumental	

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