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Syntactic and Morphosyntactic Properties of Postpositional Phrases in Beserman Udmurt as Part-of-Speech Criteria

Abstract

The goal of this paper is to analyze and reassess the criteria according to which a class of postpositions is distinguished in the Beserman dialect of Udmurt. This class is traditionally divided into inflected and non-inflected postpositions. Analysis of syntactic and morphosyntactic properties of these two subclasses shows that items traditionally labeled as inflected postpositions form a homogeneous group and show noun-like behavior in most cases, while non-inflected postpositions are heterogeneous. Based on this analysis, we propose to single out a part-of-speech class of relational nouns and show that the rest of the postpositions could be further divided into subclasses with different behavior. The study is based on the data obtained during fieldwork in 2009–2015 in Udmurtia (for Beserman) and on corpus data (for literary Udmurt).

1. Introduction¹

Problems concerning distinctions between different classes of words (for example, parts of speech) are not very popular among theoretical linguists and typologists. However, linguists sometimes have to deal with distinctive properties of different word classes. There are studies devoted to research on the categories of parts-of-speech per se (Schachter 1985; Evans 2000; Baker 2003; Ansaldo, Don & Pfau 2010). There are also certain “borderline cases” which attract the attention of theoretical linguists. One of them is the group of units combining the properties of nouns or verbs with those of adpositions; this conglomerate of properties reflects the history of their grammaticalization from nouns or verbs (Dryer 2013). These units are

¹ We would like to thank the two anonymous reviewers for their comments and suggestions. We are also grateful to the native speakers of Beserman in Shamardan village who shared their knowledge with us.

labeled differently in different studies; some of them are treated as case suffixes whereas on closer examination it turns out that they behave like clitics. More and more studies appear debating the generally accepted interpretation of such units in a wide range of languages from different language families: for example, DeLancey (1997) discusses relator nouns and postpositions in Tibetan and Burmese; Itkin (2002) so-called “postpositional formants” in Veps; Belyaev (2010) cases and postpositions in Ossetic; Thuilier (2011) in Hungarian and Jadhav (2014) in Marathi. According to Johanson (2012), the units labeled as “complex postpositions” in Northeastern Turkic and neighboring languages are especially similar to the situation we are going to investigate. Apart from spatial case suffixes and markerless constructions, in which the spatial meanings are expressed by argument structures of verbs, there are so-called “simple postpositions” which cannot inflect and “complex postpositions” bearing possessive and case suffixes which “function as nouns at the same time” (Johanson 2012: 199). In recent syntactic literature, postpositions with nominal properties are often combined with nouns to form a joined syntactic category (see Svenonius 2006 and Ashbury 2008 for the Axial part category); however, there are arguments against this decision for some languages (see Thuilier 2011 for Hungarian).

In this paper we describe the postpositions and postpositional-like elements in Beserman Udmurt. Beserman is one of the dialects of Udmurt (Uralic > Permic) spoken by the Besermans, a relatively small ethnic group occupying the basin of Cheptsa river and the Kirov region of Russia. According to the 2012 census, there are 2,201 people who identified themselves as Beserman. The background of the Besermans has been discussed since the 19th century (see the review in Teplyashina 1970: 7). According to the most widespread theory, the Besermans have Bulgar origins and used to speak a Turkic dialect, switching to Udmurt at some point (Teplyashina 1970: 243; Nasipov 2010: 17).² Certain Muslim

² V. V. Napol'skikh argues that the ancestors of modern Besermans could be groups of southern Udmurts that had contacts with Bulgar Besermans and borrowed from them certain traits of material and spiritual culture together with the ethnonym (Napol'skikh 1997: 53). His point of view is supported by the results of examining 1,912 roots of non-derived Beserman words (Idrisov 2013): 48% of them are common Permic, 17% are loaned from Russian and 14% from Turkic languages; the rest 21% of roots do not have reliable etymologies. Thus, Beserman should be treated as an offspring of Common Permic which has undergone a superstrate influence of Turkic languages and of Russian (Idrisov 2013: 53). However, this hypothesis is not generally accepted.

remnants in customs and creeds (Popova 1998: 8) as well as certain evidence from language (Napolskikh 1997: 52) testify in favor of close connections between the Besermans and the Tatars. Several researchers have even treated Besermans as christened Tatars (see the references in Popova 1998: 8), although the hypothesis of Chuvash origin seems to be more sound (Napolskikh 1997: 52–54). The modern Beserman dialect combines features of Southern and Northern Udmurt dialects with Turkic traits (Teplyashina 1970; Lyukina 2008). Most of the differences between the Beserman dialect and literary Udmurt concern vocabulary and phonetics (Kelmakov 1998). As for the grammar features described in the present article, Beserman and literary Udmurt are quite similar. Several examples taken from the corpus of literary Udmurt are given below in comparison with Beserman ones. However, a detailed analysis of postpositions in literary Udmurt goes beyond the scope of the paper.

We will discuss the morphosyntactic and syntactic properties of Beserman nouns and postpositions and offer several tests which help to determine whether a given unit is a noun or a postposition. It will be demonstrated that postpositions in Beserman fall into two subclasses, inflected and non-inflected, with different properties.

Parts of speech are usually defined as classes of words sharing common morphological, syntactic and semantic properties. In Evans (2000) nouns are treated as units whose discourse function is to refer, whose main syntactic function is to be arguments and whose semantic function is to designate objects (Evans 2000: 710–711). Adpositions are defined on the basis of their syntactic behavior: they form phrasal constituents with nouns and noun phrases, and they are also a means of marking syntactic, semantic and discourse roles (Evans 2000: 717). As the main function of adpositions seems to be the syntactic one, we will focus on syntactic and morphosyntactic criteria of determining this class of words. We will show that in Beserman the units with both nominal and postpositional properties are much closer to nouns than to postpositions and, consequently, should be treated as a special sub-type of nouns (relational/relator nouns).

2. Part-of-speech criteria

In this section we will define several terms crucial for our study. We will also discuss semantic, morphological, syntactic and morphosyntactic part-of-speech criteria with special attention to syntactic and morphosyntactic ones.

When discussing spatial semantics, we will use the term “localization” in the sense of indication of position of a definite spatial area with respect to the landmark, while the direction of motion will be referred to as orientation. List of localizations, according to Plungian (2000: 184–190), includes items like IN ‘space in the landmark’, SUPER ‘space above the landmark’, INTER ‘space among the elements of a landmark-set or a landmark-aggregate’, etc. Mazurova (2007) provides additional localizations referring to the vertical axis, but the principle is the same: localizations denote only positions in space and not the motion type. For description of motion the inventory of modes is often used; the one cited here is taken from Kracht (2002):

1. static (the object does not change its localization during the situation);
2. cofinal (the object moves into a given localization);
3. cointial (the object moves out of a given localization);
4. transitory (the object moves into a given localization and then out of it);
5. approximative (the object moves towards a given localization).

Localizations are also used for describing the semantics of groups which are not governed by a verb. For describing verbal arguments, the inventory of the so-called “locative roles” will be used.

2.1 Semantic criteria

Let us start with semantic criteria. It is a well-known fact that adpositions tend to denote localizations whereas spatial cases usually denote the mode of motion. The situation in Beserman corresponds to this generalization. Thus, its spatial case markers tend to denote the type of motion: locative case expresses the static situation, illative motion into the landmark, prolative either motion through the landmark or placement in several distinct parts of the landmark, etc. Most postpositions either denote localizations (*pəl* ‘inside homogeneous medium; among’ (INTER), *puš* ‘in a container’ (IN), etc.) or mark predicate-argument relations, being parts of verbal subcategorization frames.

The semantic criterion shows that there are two groups of postpositions. Members of the first one denote localizations; they attach markers of most cases (i.e. are **inflected**). There are also **non-inflected** postpositions which denote not localizations but locative roles, in terms of Plungian (2002) and Ganenkov (2002). Plungian notes that localization grammemes can be cumulated with other meanings, for example, with start

and end points of motion, route of motion, or the place where the situation as a whole is localized. He notes that such meanings are similar to semantic roles of verbal arguments and calls them “locative roles”. Ganenkov (2002) offers an inventory of locative roles based on data of different languages. Using his terms, the Beserman postposition *pâr(tî)* ‘through’ is used to express locative roles of ROUTE, SCENE, TRAVERSAL and POINT OF APPLICATION, *wamen* ‘across’ marks TRAVERSED OBJECT (Biryuk & Usacheva 2010), *punna* ‘for’ marks GOAL OF MOVEMENT, etc. Below we will offer several tests to find out if the two groups of postpositions divided at the level of semantics also differ in their morphological properties and syntactic and morphosyntactic behavior.

Another criterion is marking predicate–argument relations. Apart from postpositional phrases, subcategorization frames in Beserman can involve only nominal case forms or clauses with conjunctions. However, most subcategorization frames involving a postposition require a specific case form of that postposition. For instance, 12 verbs in the Beserman dictionary³ require one of its arguments to be accompanied by an inflected postposition form *vâl-e* ‘up-ILL’.⁴ In such cases we cannot be sure that it is the inflected postposition itself that has grammaticalized in this particular function rather than one of its forms which should be analyzed separately.

The approach we propose is based mainly on syntactic and morphosyntactic properties, since morphological criteria alone are insufficient for our goals.

2.2 Morphological criteria

As in many other Uralic languages, in Udmurt the units traditionally labeled as postpositions can be split in two groups based on their morphology, “nominal” (inflected) and “adverbial” (non-inflected).

The inflected postpositions, as the label implies, can be inflected, having e.g. forms of some of the spatial cases (1) and possessive forms (2–

³ The Beserman dictionary is a work in progress, but a large part of it is available at <<http://beserman.ru>>

⁴ One of the anonymous reviewers of this article justly pointed out that “the arguments of the movement verbs carry information on the direction of movements, and in this way, also information on the case marking”. In this respect it is interesting that in Beserman only the forms of relational nouns with directional case markers are grammaticalized. Arguments which refer to movements away from a place seem to show no signs of lexicalization.

3). For almost all such postpositions a case marker is obligatory, with an exception of two items which also can appear unmarked (see discussion in 2.3.3).

- (1) *Ot-ân=ik keñer dor-âś, kołosa dor-išen=ik.*
 that-LOC=EMPH fence near-ELA wheel near-EGR=EMPH
*kâd'ok-ân evâl puk-o dâdâk-jos. (C)*⁵
 far.away-LOC NEG.EXIST sit-PRS.3PL pigeon-PL
 ‘On the same spot, not far from the fence, from the wheel, pigeons are sitting.’
- (2) *Vâž ul-î-âz pot-i-z, mân-e reka kužda,*
 bridge under-PROL-POSS.3SG pass-PST-3SG go-PRS.3SG river along
wašk-e plašk-âsa. (C)
 descend-PRS.3SG swim-CVB
 ‘[She] passes under the bridge, goes along the river, swims down the stream.’
- (3) *Tilad bakća ber-a-dâ kučk-e reka. (F)*
 you.PL.GEN vegetable.garden back-LOC-POSS.2PL begin-PRS.3SG river
 ‘A river begins behind your vegetable garden.’

It has been assumed that inflected forms of most such postpositions in Udmurt are restricted to possessives and spatial cases. However, at least in the Beserman dialect, the inflected postpositions can also attach core case markers, e.g. accusative (4–5), and number markers (6).

- (4) *Skaf puš-se⁶ mišk-ono. (F)*
 cupboard inside-POSS.3SG.ACC wash-DEB
 ‘The cupboard should be wiped inside.’
- (5) *Korka wad'es-te okt-ono kalt-ono. (F)*
 house across-POSS.2SG.ACC collect-DEB gather-DEB
 ‘The place across your house has to be cleaned.’

⁵ Examples marked by the index “C” are taken from the corpus of Beserman texts available at <<http://beserman.ru>>. Examples marked by “F” are taken from our own fieldnotes; most of them are results of elicitation, the rest are taken from texts recorded and transcribed during a series of experiments. The fieldwork was conducted in 2009–2015 in Shamardan village, Yukamenskoe region, Udmurtia.

⁶ The mutual order of case markers and possessive markers is variable in Udmurt. Each case has its own ordering, while accusative–possessive combinations may be analyzed as cumulative (see, e.g. Alatyrev 1983: 570).

- (6) *Viľ / viľ-eś korka dor-jos-a-zĕ kĕś pu puk-t-ĕl-ĕmĕn.* (F)
 new / new-PL house near-PL-LOC-POSS.3PL birch sit-CAUS-ITER-RES
 ‘Birches are planted near the new houses.’

Therefore, there seems to be no significant difference between Beserman nouns and inflected postpositions in terms of their morphology, as all case, number, and possessive markers available for nouns are also generally available for the inflected postpositions.⁷

A brief corpus study suggests that postpositions in literary Udmurt also attach the markers of possession (7) and core cases. Examples of genitive and dative are provided in (8–9).

- (7) *Taĕe ikona-ez dor-a-zĭ voĕ-o ŝaer-a-mĭ*
 such icon-ACC near-LOC-POSS.3PL keep-PRS.3PL country-LOC-POSS.1PL
ul-iś-jos=no.
 live-PTCP.ACT-PL=ADD
 ‘Such icons the inhabitants of our country also have in their possession.’
 CSU⁸ (Udmurt duńĕ, 4th March 2011)

- (8) *Proekt-len valt-iś mug-ez mĭn-iś*
 project-GEN lead-PTCP.ACT aim-POSS.3SG go-PTCP.ACT
vetl-iś-jos-lĭ ĭm puś-len viśon-jos-ĭz=no
 travel-PTCP.ACT-PL-DAT mouth in-GEN disease-PL-POSS.3SG=ADD
so-os-leś utiśkon ŝariś ivort-ĭnj.
 that-PL-GEN2 protection about inform-INF
 ‘The primary aim of the project is to inform the travelers about oral cavity diseases and about the methods of protecting from them.’
 CSU (Udmurt duńĕ, 25th April 2013)

- (9) *Ĉĭlkak muket jugdur korka puś-lĭ arberi-os*
 completely other circumstance house inside-DAT thing-PL
laśań.
 from.side.of
 ‘As for furniture for house (lit. for the inner space of house), it is quite a different story.’
 CSU (Udmurt duńĕ, 7th September 2010)

⁷ There are still postpositions in Beserman that have deficient paradigms; namely, they attach only a small subset of the spatial case markers. Such units are discussed in section 4.

⁸ All the examples marked CSU are taken from the Corpus of Standard Udmurt available at <<http://web-corpora.net/UdmurtCorpus>>.

Let us now turn to non-inflected postpositions. Normally they do not attach nominal markers, but there is one exception. The case–possessiveness combinations involving the 3rd singular possessive marker, which has a range of functions beyond possessiveness, can attach to virtually any word, including non-inflected postpositions, in cases of head noun ellipsis:

- (10) *Ta vid'ik-ân kwara-ez íab.*
 this video-LOC voice-POSS.3SG weak
 – *Kće vid'ik-ân?*
 which video-LOC
 – [*Kud-a-z mon / ton śarâś*] /
 [which-LOC-POSS.3SG I.NOM / you.NOM about] /
 [*mon / ton śarâś*]-a-z. (F)
 [I.NOM / you.NOM about]-LOC-POSS.3SG
 ‘The voice is low in this video. – In which video? – In the one about me / you.’

Usage of possessive suffixes in Permic languages is a complicated phenomenon that has been examined in numerous papers and still requires fundamental research. As for Beserman possessives, analysis of their behavior is in progress. Here we will only briefly sketch the question of discourse and pragmatic functions of Udmurt possessive markers and give several important Beserman examples. There are arguments for distinguishing two types of Udmurt possessive suffixes identical in form but with different functions and morphosyntactic properties. They were first declared by Alatyrev (1970, 1983), who suggested a separate “marking-indicating” category expressed by “discourse” possessive markers. He pointed out that possessive markers performing not referential but discourse or pragmatic functions always attach **after** case suffixes whereas referential possessive markers always attach **before** markers of certain cases (i.e., genitive, second genitive, dative, caritive, adverbial and approximative). Alatyrev notes that “the marking-indicating affix forms the second semantic nucleus of the word and has its own paradigm” (Alatyrev 1983: 586). It can be interpreted in two senses. First, all case markers can appear after the suffixes in question:

- (11) Standard Udmurt (Alatyrev 1983)
 a. *Ivan-len-ez-li*
 Ivan-GEN-POSS.3SG-DAT
 ‘to that one which belongs to Ivan’

- b. *Ivan-len-ez-leś*
 Ivan-GEN-POSS.3SG-GEN2
 ‘from that one which belongs to Ivan’

Second, “discourse” possessive affixes form their own paradigm in the sense that they attach to all case markers without any phonetic changes. An example of “elative + **discourse** possessive” combination is given below.

(12) Standard Udmurt (Alatyrev 1970: 78)

- Kazań-iś-ez* *mi* *dor-in* *puk-e.*
 Kazan-ELA-POSS.3SG we.NOM near-LOC sit-PRS.3SG
 ‘The one [the engineer] from Kazan is sitting at our place.’

As for “referential” possessive suffixes, they constitute fused forms with locative, illative, elative and terminative. The form containing combination “elative + **referential** possessive” must be *Kazań-iśt-iz* ‘(to come) from the city of Kazan’.

Alatyrev’s interpretation of Udmurt data is criticized by many linguists dealing with Finno-Ugric studies. However, at least for Beserman distinguishing two different types of possessive markers makes sense. Let us weigh in with some arguments based on Beserman data. Firstly, referential functions are performed by possessive suffixes of all persons and numbers whereas it is only 3rd person singular possessive which has discourse and pragmatic functions. Secondly, in Beserman the discourse possessive also has its own paradigm in both senses described above for standard Udmurt. So, there are not fused but agglutinative combinations of locative, illative, elative and terminative suffixes with discourse possessive markers. Thirdly, the most frequent context for discourse possessive suffixes are noun phrases (NPs) the head of which has undergone ellipsis. In this context the suffixes in question can be attached to practically any unit. For example, (10) illustrates discourse possessive markers that attach to a non-inflected postposition. Referential possessives, on the contrary, can be attached only to nouns and nominalizations. The scope of the use of discourse possessives therefore seems to be quite strictly limited by certain syntactic constructions. Finally, there are examples containing two possessive markers, one referential and one discourse (in 13 the referential marker is 1SG and the discourse one 3SG).

- (13) *Mānam korka-je-len* *lāpet-ez* *kort-leś, a*
 I.GEN house-POSS.1SG-GEN roof-POSS.3SG iron-GEN2 whereas
munčo-je-len-ez *doska-leś. (F)*
 bath-house.POSS.1SG-GEN-POSS.3SG plank-GEN2
 ‘The roof of my house is (made of) iron, whereas that of my bath-house is (made of) wood.’

The two last arguments provide evidence that in Beserman there are two types of possessive markers with different morphosyntactic properties and different functions. However, this phenomenon is still waiting for a careful investigation. Below we will take into account only possessive suffixes bearing referential functions (referring to a referent) and not discourse or pragmatic ones.

2.3 Syntactic and morphosyntactic criteria

In this section we will compare syntactic and morphosyntactic properties of phrases headed by inflected and non-inflected postpositions in Beserman. We will focus on the following criteria: possessive and plural markers possible on the dependent or on the head, ability of attaching core case markers, case marking of nominal and pronominal dependents, ability to function as parts of compounds, and ability to be pronominal dependents.

First of all, we must demonstrate that the inflected postposition is indeed the head of the phrase in Beserman. It is not always easy to distinguish head and dependent in a postpositional phrase (henceforth PP); moreover, non-inflected postpositions do not always form a phrase with a unit on their left. Compare the following examples:

- (14) *Reka wamen ez=uk* *pot-ā? (C)*
 river across NEG.PST.3SG=EMPH go.out-NEG.SG
 ‘Did not she (the granny) cross the river?’

- (15) *Reka-ti wamen pot-i-z. (C)*
 river-PROL across go.out-PST-3SG
 ‘(She) went across the river, straight across.’

In (14) *reka* ‘river’ can be removed, but not *wamen* ‘across’:

- (16) a. *Wamen ez=uk* *pot-ā? (F)*
 across NEG.PST.3=EMPH go.out-NEG.SG
 ‘Did not she (the granny) go straight across?’

- b. ***Reka** *ez=uk* *pot-â?* (F)
 river NEG.PST.3=EMPH go.out-SG
 Intended reading: ‘Did not she (the granny) cross the river / come out of the river?’

In (15) one can omit not only *wamen* ‘across’ (17a), but also *reka-ti* ‘river-PROL’ (17b):

- (17) a. **Reka-ti** *pot-i-z.* (C)
 river-PROL go.out-PST-3SG
 ‘(She) went along the river/through the river.’
- b. **Wamen** *pot-i-z.* (C)
 across go.out-PST-3SG
 ‘(She) went straight across.’

According to the criterion of endocentricity (Testelefs 2001), in (14) *reka* ‘river’ and *wamen* ‘across’ form a syntactic phrase headed by *wamen* ‘across’, as it cannot be omitted, while in (15) *reka-ti* ‘river-PROL’ and *wamen* ‘across’ are not syntactically bounded. In cases like (15) the function of *wamen* ‘across’ is not postpositional but adverbial. Independent evidence for the adverbial nature of non-inflected postpositions comes from derivation. Some of them can attach the suffix *-ak* with intensifying meaning which is used to form adverbs from adverbs: *wamen* ‘across’ → *wamenak* ‘right across’ (cf. *âžât* ‘a little’ → *âžâtak* ‘a little’, *šoher* ‘straight’ → *šoherak* ‘right straight’).

As for groups of the type “noun + inflected postposition”, nouns in them can only be omitted if the postposition acquires possessive suffix.

- (18) a. *Mon ul-iško čašja dor-ân.* (F)
 I.NOM live-PRS.1SG forest near-LOC
 ‘I live near a forest.’
- b. *Mon ul-iško dor-a-z / *dor-ân.* (F)
 I.NOM live-PRS.1SG near-LOC-POSS.3SG / near-LOC
 ‘I live near it.’

So, strictly speaking, one can omit neither the noun (18b) nor the inflected postposition (see 19 below), which makes the criterion of endocentricity inapplicable:

- (19) **Mon ul-iško čašja*. (F)
 I.NOM live-PRS.1SG forest
 Intended reading: ‘I live near a forest.’

The fact that inflected postpositions allow the noun syntactically bounded with it to be omitted only in the case of acquiring a possessive marker means that inflected postpositions must bear a referential index, in the sense of Baker (2003). So, according to Baker’s theory, which we adopt in this paper, inflected postpositions are nouns at least at the level of syntax. Therefore, one can use the criterion of morphosyntactic locus offered in Zwicky (1985) for finding the head in the groups of the kind “noun + noun”. Namely, we should define which of the nouns in the phrase bears morphological markers of external syntactic relations. As demonstrated below, markers of relations inside the group “noun + inflected postposition”, i.e. possessive and plural suffixes, can attach to both members of the group. Markers of external relations – namely, case suffixes – can attach only to the postposition:

- (20) *Mon ul-iško (čašja dor-ân) / *(čašja-jân dor)*. (F)
 I.NOM live-PRS.1SG (forest near-LOC) / (forest-LOC near)
 ‘I live near a forest.’

That is, the head of the group “noun + inflected postposition” is an inflected postposition.

Now let us turn to syntactic and morphosyntactic criteria to define the class of postpositions. A number of papers on Uralic languages have proposed them (e.g. Maytinskaya 1979). The list of criteria described in that work was revised and expanded by Biryuk (2005), based on data from a variety of Uralic languages, including Udmurt. Some of the criteria involve articles or vowel harmony and are thus irrelevant for the Beserman because of the lack thereof. The proposed list of potentially relevant features, excluding the ones which are inapplicable or irrelevant to the Beserman data, includes the following ones:

1. possibility of using the unit without a dependent noun or a possessive marker;
2. possibility of omitting the unit without loss of grammaticality;
3. possibility of using the unit without a dependent noun together with both a possessive marker and a modifying adjective;
4. whether the unit assigns the case to the dependent noun;
5. whether the unit can occur in the position of subject or direct object;

6. whether the construction involving the unit can be split by modifiers, emphatic particles, dependent nouns coordination or moving the dependent into contrastive focus position;
7. possibility of coordination between phrases headed by units;
8. possibility of using the unit as a reply to a question;
9. single stress in the [N + unit] complex;
10. presence of phonological alternations at the boundary in the [N + unit] complex.

The values of the parameters proposed in Biryuk (2005) for units of different lexical classes are represented in Table 1.

Table 1. Syntactic, morphosyntactic and morphophonological criteria for defining postpositions based on Biryuk (2005)

Parameter	Case	Postposition
Usage without dependents and possessives	–	–
Possibility of omission	–	–
UnitPOSS + modifier	–	–
Unit governs the case of the dependent	–	+
Possibility of being subject or direct object	–	–
Possibility of being split	–(+)	+(-)
Head coordination	–	+
Unit as a reply to a question	–	+
Single stress	+	–
Phonological processes	+	–

According to the criteria proposed by Biryuk, inflected and non-inflected postpositions should fall in the same category. However, their morphological properties are quite different, as was shown earlier. Therefore, we had to examine the (morpho)syntactic behavior of these two groups in order to find out whether there are any criteria that would justify the separation of inflected postpositions from non-inflected ones.

First, we examined those criteria proposed by Biryuk which were applicable to the Beserman data and found that some of them yield different results. The tests involving coordination produce inconsistent results for both case markers and postpositions. On the one hand, the approximative case (21) and the recently grammaticalized marker that can

be labeled as a recessive case (22) sometimes allow being used as suspended affixes in a coordinating construction.

- (21) *Zor košk-e* **[Bagurt=no Ježgurt]-lań.** (F)
 rain leave-PRS.3SG Abashevo=ADD Yozhevo=APPR
 ‘The rain is going away in the direction of Abashevo and Yozhevo [villages].’
- (22) *Mi kaĺ vičak rodńa-os-tâ* **kâšno=no mužik=no-lašen** /
 we now all relative-PL-PL.ACC wife=ADD husband=ADD-REC /
[kâšno-en mužik-en]-lašen *ńâm-âń* *ńâm-âń* *vera-škom.* (F)
 [wife-INS husband-INS]-REC name-INS name-INS say-PRS.1PL
 ‘Now we call all our relatives, both from the side of the wife and from the side of the husband, by name.’

The possibility of coordination between dependents for the postpositions varies between different postpositions and different speakers. For example, for the postposition *vâl-* ‘up’ the vast majority of speakers prohibited such contexts (24), while for the postposition *vis-* ‘between; interval’ they were allowed (23).

- (23) *Gibi bud-e* **kâš pu=no** **kâz=no** **vis-k-âń.** (F)
 mushroom grow-PRS.3SG birch=ADD fir=ADD between-OBL-LOC
 ‘A mushroom grows between a birch and a fir tree.’
- (24) ***Škap=no** **žek=no** / ***škap-en** **žek-en** *vâl-išt-âd*
 cupboard=ADD table=ADD / cupboard-INS table-INS up-ELA-POSS.2SG
kopot’ čuš-âl. (F)
 dust wipe-ITER.IMP
 ‘Wipe the dust from the cupboard and the table.’

For most other postpositions, both inflected and non-inflected, the opinions of the speakers were polarized.

As the direct application of these criteria proved problematic, we developed a new set. Taking into account that inflected postpositions behave like nouns in many respects, we examined a series of properties concerning nominal categories (number, case and possessiveness) with phrases headed by postpositions in order to compare them to ordinary NPs. Most of the criteria we checked concerned the possibility of attaching nominal markers to the head and to its dependents, and the semantics of these constructions. Although we do not claim that our set of criteria is in any way complete, we believe that it highlights well enough the syntactic

properties of the inflected and non-inflected postpositions, allowing their categorization into several classes.

In the subsection devoted to morphological properties of Beserman postpositions we described them in comparison with standard Udmurt ones. As for syntactic properties of postpositions, standard Udmurt grammars lack descriptions of most of them, and the corpus data are insufficient as the corpus does not contain negative evidence, i.e. ungrammatical sentences. Therefore, we leave this task for future research.

2.3.1 Possessive marker possible on the dependent or on the head

In Beserman NPs with a nominal dependent (or a chain of nominal dependents) the possessive marker which semantically refers to the dependent can appear either on the dependent, or on the head noun. Inflected postpositions demonstrate similar behavior: possessive markers can attach to the postposition or to the dependent.⁹ As for non-inflected postpositions, apart from contexts like (10), they cannot attach any nominal markers, even those which refer to the nominal dependent:

- (25) *Mon ěakla-šk-iško tĕnad anaj.ataj-os-ĕd¹⁰ řarĕř /*
 I.NOM think-DETR-PRS.1SG you.SG.GEN parents-PL-POSS.2SG about /
 **anaj.ataj-os řarĕř-ĕd.* (F)
 parents-PL about-POSS.2SG
 ‘I think about your parents.’

The criteria discussed in sections 2.3.1–2.3.3, which involve nominal inflection, are therefore relevant only for the inflected postpositions. These tests were developed to compare the inflected postpositions to full-fledged nouns.

The examples below contain pairs of sentences with identical meaning which differ in the place the possessive marker occupies:

⁹ The same effect also exists, although to different degrees, in literary Udmurt, Komi, and Mari (see Kubínyi 2015 and references therein).

¹⁰ It is quite difficult to distinguish compounds of this type from a conjoined phrase. However, there is a syntactic difference. If the compound is used, it is morphologically marked only once for every category – as in (25), where one can see only one plural and one possessive marker. Otherwise both parts inflect: *anaj-os-ĕd ataj-os-ĕd řarĕř* mother-PL-POSS.2SG father-PL-POSS.2SG about ‘about your mother and your father’. For more detailed description and comparison with other Finno-Ugric languages see Shibasova (2006).

- (26) a. *Mânam korka košag-a-m šukk-išk-i-z ẓ̌ârgâlâ.* (F)
 I.GEN house window-ILL-POSS.1SG hit-DETR-PST-3SG sparrow
 ‘A sparrow bumped into the window of my house.’
- b. *Mânam korka-je-len košag-a-z šukk-išk-i-z*
 I.GEN house-POSS.1SG-GEN window-ILL-POSS.3SG hit-DETR-PST-3SG
ẓ̌ârgâlâ. (F)
 sparrow
 ‘A sparrow bumped into the window of my house.’
- (27) a. *Pukon pâd-tî-d mân-e ċibiñ.* (F)
 chair leg-PROL-POSS.2SG go-PRS.3SG fly
 ‘A fly is moving along the leg of your chair.’
- b. *Pukon-ed-len pâd-tî-z mân-e ċibiñ.* (F)
 chair-POSS.2SG-GEN leg-PROL-POSS.3SG go-PRS.3SG fly
 ‘A fly is moving along the leg of your chair.’

Examples (28–29) illustrate the same alternatives for inflected postpositions:

- (28) *So tâb-i-z korka-je dor-e /*
 he go.up-PST-3SG house-POSS.1SG near-ILL /
korka dor-a-m uža-nâ. (F)
 house near-ILL-POSS.1SG work-INF
 ‘He went up to my house to work.’
- (29) *Zor bere milam d’erevna-mâ šâres vâl-tî /*
 rain after we.GEN village-POSS.1PL road up-PROL /
d’erevna šâres vâl-tî-mâ mân-ânâ sekât. (F)
 village road up-PROL-POSS.1PL go-INF hard
 ‘It is hard to use the road of our village after it rains.’

According to the opinion of the speakers and our observations, there is indeed no difference in meaning between these pairs of utterances. It seems that the position of the affix is influenced by factors like the position of the dependent on the animacy hierarchy rather than by other factors such as topicality, focus, etc. In phrases with noun heads, the possessives are more often seen on the dependents than on the heads. For postpositions, the situation is the opposite, but possessives on dependents are still quite frequent in speech and are often accepted as perfectly grammatical. Moreover, sometimes such configuration is preferable or even the only

possible one, e.g. in contexts where the dependent stands high on the animacy hierarchy, the same constraint being relevant for nominal heads. Table 2 shows the proportion of possessive contexts in the Beserman corpus where the possessive marker is attached to the postposition, but semantically refers to the dependent.

Table 2. Possessive markers on inflected postpositions and their dependents

	Possessive marker on the head	Possessive marker on the dependent
1SG	14	3
1PL	0	0
2SG	7	7
2PL	0	0
3PL	5	1

The 3rd singular possessives were not included in the table as it is impossible to tell what a POSS.3SG marker refers to, a head or a dependent. The contexts where the dependent was a personal pronoun were also excluded as this would imply agreement rather than choice between two equivalent constructions. The choice of the host for the possessive marker is explained fairly well by the animacy hierarchy: while in the right column 8 out of 11 dependents were animate, there were no animate dependents in the left column. When the dependent is a kinship term, thus occupying a very high position in the hierarchy, the possessive on the head is usually prohibited, for nouns and postpositions alike. Compare (30) and (31) below with (28) above:

- (30) *So t̂ab-i-z ataj-e dor-e / *ataj dor-a-m*
 he go.up-PST-3SG father-POSS.1SG near-ILL / father near-ILL-POSS.1SG
uža-n̂. (F)
 work-INF
 ‘He went up to my father to work.’

- (31) *M̂anam abi-e-len ẑb̂n-a-z /*
 I.GEN grandmother-POSS.1SG-GEN gown-LOC-POSS.3SG /
 **abi ẑb̂n-a-m ẑk paś.* (F)
 grandmother gown-LOC-POSS.1SG big hole
 ‘There is a big hole in my grandmother’s gown.’

For dependents occupying lower levels of the hierarchy, e.g. animals, the opinions of the speakers were polarized sometimes, although generally

possessive on the head tends to be acceptable in this case, both for nouns and postpositions.

Application of this criterion to the Beserman data provides twofold results. On the one hand, it clearly separates inflected postpositions from non-inflected ones and groups them with nouns, as the described phenomenon is available for both classes and the same kind of semantic constraints apply for the postpositions as for nouns. On the other hand, the possessive marker on the head is more often judged acceptable and used in speech in phrases headed by inflected postpositions. The current size of our corpus does not allow numerical comparison because there are too few NPs where both the head and the dependent are nouns and one of them is marked with 1st or 2nd person possessive which unambiguously semantically refers to the dependent. However, the available examples and speakers' judgments (e.g. their first reactions to Russian stimuli) suggest that such a pattern, although grammatical in most cases, occurs in NPs less often, the default construction being the one with the possessive marker on the dependent. Careful analysis of the difference between nouns and inflected postpositions in this respect is yet to be performed.

2.3.2 Plural marker possible on the dependent or on the head

There are two kinds of contexts in which inflected postpositions attach the nominal plural marker. First, the plural marker can have the same property as the possessive ones do: it can appear on the head while semantically referring to the dependent. The plural marker on inflected postpositions appears almost exclusively in such capacity, as illustrated below.

- (32) *Škaf puš-jos-ân kopot' l'uka-šk-e.* (F)
 cupboard inside-PL-LOC dust gather-DETR-PRS.3SG
 'Dust is gathering inside cupboards.'

- (33) *Pušner bud-e anal-t-em korka-os bord-ân /*
 nettle grow-PRS.3SG be.left.behind-CAUS-PTCP.PST house-PL near-LOC /
korka bord-jos-ân gâne. (F)
 house near-PL-LOC only
 'Nettle grows only beside abandoned houses.'

However, there is a second kind of context in which the plural marker refers semantically to the head rather than to the dependent:

- (34) *Milam d'erevna kotâr-jos-ân lud'-jos vičak čašja-jen*
 we.GEN village around-PL-LOC field-PL all forest-INS
bašt-emân=ni. (F)
 take-RES=already
 'All fields around [in all directions] our village are taken by the forest already.'

This phenomenon is definitely not as widespread as the same one with the possessive marker. In our relatively small Beserman corpus we found no examples of it. However, in the much larger CSU (Corpus of Standard Udmurt) there are examples with plural marker on the head:

- (35) *Bakča ber-jos-ti korka dor-i vamišt-iško.*
 vegetable.garden behind-PL-PROL house near-ILL step-PRS.1SG
 'I am walking home behind the vegetable gardens.'
 CSU (Udmurt duńne 20th January 2010)

It seems impossible to compare the behavior of inflected postpositions in contexts of the first kind to that of nouns. The reason is that, unlike with the possessives, whenever a head noun of an NP has a plural marker which could refer semantically to the dependent, it may as well refer to the head.

2.3.3 Ability of attaching core case markers

Apart from spatial cases, inflected postpositions in Beserman have nominative (36), accusative (37–38) and dative (39) case forms, a property which is associated with a typical noun rather than with a typical inflected postposition:

- (36) *So-iz škaf-len puš-k-âz¹¹ šed, a*
 that-POSS.3SG cupboard-GEN inside-OBL-POSS.3SG black and
ta-iz ted'â. (F)
 this-POSS.3SG white
 'That cupboard is black inside and this one is white.'

- (37) *Škaf puš-se mišk-ono. (F)*
 cupboard inside-POSS.3SG.ACC wash-DEB
 'The insides of the cupboard have to be washed.'

¹¹ The oblique stem of inflected postpositions appears before every suffix beginning with a vowel including 1SG, 2SG and 3SG possessive suffixes in nominative.

- (38) *Zabor bord-jos-se kopa-no.* (F)
 fence near-PL-POSS.3SG.ACC dig-DEB
 ‘The area near the fences has to be dug up.’
- (39) *Každâj škaf puš-lâ bade kâk polka lešt-emân.* (F)
 every cupboard inside-DAT every two shelf make-RES
 ‘Two shelves were made inside every cupboard.’

Although examples involving the genitive or second genitive¹² case are problematic for many speakers, this may be due to the fact that it is difficult to find a suitable natural context:

- (40) *ʔMon škaf puš-leš kopot-se mišk-i.* (F)
 I.NOM cupboard inside-GEN2 dust-POSS.3SG.ACC wash-PST.1SG
 ‘I wiped the dust inside the cupboard (lit. I washed the cupboard insides’ dust).’

Although speakers allow using the postpositions in question in the nominative case in subject position when referring to places, it should be noted that the postpositions in fact differ as to the default meaning of the unmarked form. Specifically, postpositions *kotâr* ‘around’ and *pumât* ‘against’, which occur frequently enough in the unmarked form, do not refer to places in most occurrences, having instead lative (*pumât*) or essive/temporal (*kotâr*) semantics which is inherited from the semantics of the verb. There are also inflected postpositions that very rarely assume core case markers, including the nominative. Core forms other than nominative, although judged grammatical, occur quite infrequently in speech with all postpositions: out of all other core cases, there is only one accusative form in the Beserman corpus.

A look at the literary Udmurt data suggests that the overall behavior of the corresponding items in literary Udmurt resembles that of Beserman. Table 3 compares the distribution of cases for some of the postpositions which occur sufficiently frequently in the core cases.

¹² The case with the marker *-leš/-lâš* whose primary function in Beserman is marking nominal dependent in NPs headed by a noun in the position of direct object.

Table 3. Postpositions in core cases in Beserman and literary Udmurt

	Postposition		
	<i>pumâť/pumit</i> 'against'	<i>kotâr/kotjir</i> 'around'	<i>šor</i> 'middle'
CSU			
NOM	2,343 (62%)	2,288 (37%)	1,687 (17%)
ACC	0	480 (8%)	19 (.2%)
GEN	0	1 (.02%)	1 (.01%)
DAT	0	15 (.3%)	1 (.01%)
Total	3,791	6,263	9,665
Beserman corpus			
NOM	4 (21%)	14 (40%)	3 (9%)
ACC	0	1 (3%)	0
GEN	0	0	0
DAT	0	0	0
Total	19	35	33

2.3.4 Case marking of a nominal dependent

In Beserman, nominal dependents in NPs can be marked by either nominative or genitive case (41a–b and 26a–b):

(41) a. *parś pel* (F)
 pig ear
 'pig's ear'

b. *Mon aslam parś-e-len pel-ez-leś.*
 I.NOM REFL.1SG pig-POSS.1SG-GEN ear-POSS.3SG-GEN2
sud'eń lešt-i. (F)
 jelly make-PST.1SG
 'I made meat-jelly out of my pig's ears.'

In this respect, there is no difference between nouns and inflected postpositions, as nominal dependents of inflected postpositions can also be marked by either nominative or genitive:¹³

¹³ As shown in Simonenko and Leontjev (2012), the choice of case marking of the dependent in NPs is likely to be determined by specificity of the dependent. With inflected postpositions, according to our observations, emphatic highlighting of the dependent is a more relevant parameter. The position of the dependent on the animacy

- (42) a. *Mon uš-i tñnad korka vâl-išen-âd /*
 I.NOM fall-PST.1SG you.SG.GEN house up-EGR-POSS.2SG/
kork-ed-len vâl-išen-âz. (F)
 house-POSS.2SG-GEN up-EGR-POSS.3SG
 ‘I fell down from the roof of your house.’
- b. *Škaf-len puš-k-a-z / škaf puš-k-ân*
 cupboard-GEN inside-OBL-LOC-POSS.3SG / cupboard inside-OBL-LOC
šâr puzkarčik-em. (F)
 mouse settle-PST.EVID.3SG
 ‘A mouse settled inside the cupboard.’

Non-inflected postpositions, on the contrary, never allow variable dependent marking when used in postpositional function, i.e. being a PP’s head.

2.3.5 Case marking of a pronominal dependent

One of the main characteristic features of inflected postpositions that distinguishes them from nouns is the marking of the dependent when the latter is a 1st or 2nd person pronoun, thus occupying the top of the animacy hierarchy. While in phrases with a noun head pronominal dependents can be only marked with genitive case (43), with inflected postpositions they allow both nominative and genitive marking (44–47). The non-inflected postpositions, on the other hand, require different cases depending on their idiosyncratic government models (48–49).

- (43) *miłam / *mi d’era-mâ* (F)
 we.GEN / we.NOM canvas-POSS.1PL
 ‘our canvas’
- (44) *Mñnam valłin-a-m / mon valłin-ân puk-e Peta.* (F)
 I.GEN beside-LOC-POSS.1SG / I.NOM beside-LOC sit-PRS.3SG Petya
 ‘Petya is sitting by my side.’
- (45) *Mon ul-tí / mñnam ul-tí-m košk-i-z paroxod.* (F)
 I.NOM below-PROL/I.GEN below-PROL-POSS.1SG leave-PST-3SG ship
 ‘Below me swam (lit. went away) a ship.’

hierarchy also plays an important role for both nouns and inflected postpositions: the higher its position, the more likely the genitive marking. However, this topic still requires a detailed examination.

- (46) *Mon ul-âñ / mânam ul-a-m íimofej ul-e.* (F)
 I.NOM under-LOC / I.GEN under-LOC-POSS.1SG Timofey live-PRS.3SG
 ‘Timofey lives [in the apartment] under me.’
- (47) *Mon mesta-je / mânam mesta-ja-m mân-o-z Ruslan.* (F)
 I.NOM instead-ILL / I.GEN instead-ILL-POSS.1SG go-FUT-3SG Ruslan
 ‘Ruslan will come instead of me.’
- (48) *mon seren / *mânam seren-a-m /*
 I.NOM because.of / I.GEN because.of-LOC/ILL-POSS.1SG /
 **seren-e* (F)
 because.of-POSS.1SG
 ‘because of me’
- (49) *So-os lâkt-i-zâ mone punna mašina-en.* (F)
 that-PL come-PST-3PL I.ACC for car-INS
 ‘They came for with a car.’

This point clearly separates inflected postpositions from ordinary nouns. While for the latter the constraint of the animacy hierarchy is absolute, the former can have nominative dependents occupying any position in the hierarchy. The construction with the pronoun in the nominative resembles postpositional government like that of *seren* ‘because of’ in (48). However, in speech inflected postpositions still use the noun-like pattern with the pronoun in genitive in the vast majority of cases. Out of 20 relevant examples in our Beserman corpus, there were no examples with the pronoun in the nominative. Besides, there are two of the inflected postpositions, *ber-* ‘behind’ and *śer-* ‘behind an object which has a front side’, for which the construction with nominative pronominal dependent is generally prohibited by the speakers (although there are examples with the nominative in the CSU). We have no explanation why these two items behave differently in Beserman, but it can be hypothesized that for some reason they have not fully passed the grammaticalization path made by other inflected postpositions.

2.3.6 Ability to function as parts of compounds

Beserman inflected postpositions demonstrate noun-like derivational properties: they can function as parts of compounds (most often as their second parts). There are seven compounds in the Beserman–Russian dictionary for both *vâl* ‘top, surface’ and *ul* ‘bottom’, six for *jâl* ‘top, apex’, four for *pal* ‘side’ (excluding geographical proper names) and one or two for most of the other inflected postpositions. Here are several examples:

(50) *vož* *vâl* (F)
 meadow surface
 ‘meadow (lit. meadow-surface)’

(51) *pâd* *jâl* (F)
 foot tip
 ‘toe; fast (about a person or an animal who moves fast)’

(52) *ber* *vâl*¹⁴ (F)
 back surface
 ‘remainders’

(53) *Kwaka* *pal* (F)
 bird side
 ‘Bird’s side (a part of Shamardan)’

This property of inflected postpositions reflects their nominal origin: compounds of the type represented in (50–53) are generally lexicalized from “noun + noun” phrases. As one can conclude from the discussion above, PPs headed by inflected postpositions are in many respects like NPs. Phrases headed by non-inflected postpositions have different properties, so it is not surprising that they never appear in compounds. This is due to their close connections with verbs: non-inflected postpositions serve as markers of locative roles which are much alike semantic roles (see the discussion at the beginning of section 2). Groups headed by inflected postpositions, on the contrary, can easily be detached from verbs and undergo lexicalization as postpositions of this kind bear their own lexical meaning denoting localizations.

¹⁴ Here both parts of the compound are stems of inflected postpositions.

2.3.7 Ability to be adnominal dependents

One of the most common types of NPs in Finno-Ugric languages is represented by groups of the type “noun + noun” containing an unmarked dependent. Inflected postpositions can also be adnominal dependents and bear no grammatical markers. Thus, *pušpal* ‘internal side’ in (54) and *až pal* ‘front side’ in (54) have exactly the same structure as *kureg pi* ‘chicken’ (lit. hen-son) in (55):

- (54) Sp1: *Keñer dor-a-z gid' pal-an.*
 fence near-LOC-POSS.3SG cattle-shed side-LOC
 ‘[The bicycle is] near the fence, on the side of the cattle-shed.’

- Sp2: *Puš pal-a-z=a, ped pal-a-z=a? (C)*
 inside side-LOC-POSS.3SG=Q external side-LOC-POSS.3SG=Q
 ‘On its internal side or on its external side?’

- (55) *So kureg-ed-len gad'-ez až pal-a-z*
 that hen-POSS.2SG¹⁵-GEN breast-POSS.3SG front side-LOC/ILL-POSS.3SG
sâl-t-i-d opet odig piči kureg pi. (C)
 stand-CAUS-PST-2SG again one little hen son
 ‘In front of the hen’s breast put again one little chicken.’

Non-inflected postpositions never appear as parts of NPs. Again, this can be a consequence of close connections with verbs: non-inflected postpositions cannot be governed by nouns as they are already governed by verbs. Inflected postpositions are much more independent units with no default syntactic “host”.

The results of the tests proposed above for Beserman nouns, inflected postpositions and non-inflected postpositions are provided in Table 4 below.

¹⁵ The second person possessive is used here to indicate that the object in question has been already mentioned in the previous discourse.

Table 4. Syntactic and morphosyntactic tests results for Beserman nouns and postpositions

Parameter	Non-inflected postpositions	Inflected postpositions	Nouns
Possessive marker on dependent or head (section 2.3.1)	not relevant	+	+
Plural marker on dependent or head (section 2.3.2)	not relevant	+	+
Core case forms (section 2.3.3)	not relevant	+	+
Nominative and genitive marking available for nominal dependents (section 2.3.4)	–	+	+
Pronominal dependents in the nominative (section 2.3.5)	depends on the governed cases	+	–
Ability to function as parts of compounds (section 2.3.6)	–	+	+
Ability to be adnominal dependents (section 2.3.7)	–	+	+

One more syntactic test could be run to distinguish postpositions from nouns, i.e., the possibility of the unit to attach adjectives and demonstratives as dependents. Unfortunately, for this test we do not have reliable results: we were unable to create examples that could be treated by speakers as “natural” ones. We cannot therefore be sure that the examples we gave to the speakers were rejected by them on the basis of their ungrammaticality rather than because the speakers cannot imagine the situation described in the sentence offered. Therefore, we do not discuss the results of the test in question. Nevertheless, we think that the results of the rest of the tests are sufficient to make a decision about the status of the Beserman units in question.

3. Results

Let us draw a general conclusion. As one can see from Table 4, the tests unequivocally single out the class of non-inflected postpositions. Inflected postpositions, on the other hand, are distinguished from nouns by only one test out of seven. Therefore, there is a good reason to treat them as a subclass of nouns rather than of postpositions. The units in question can be

labeled relational nouns.¹⁶ This term is used for units which denote the first term of relation and have a valence that must be filled at the syntactic level (Shmelyov 1998: 170–171). According to Starosta (1985) and DeLancey (1997), relational nouns function as heads in spatial NPs with nominal dependents and express localization.

The vagueness of the border between nouns and postpositions is explained by the grammaticalization path of the latter. As shown in Lehmann (2002: 78), relational nouns in Uralic languages can usually attach possessive and core case markers. The resulting construction has the form

[[NP-GEN N_{rel}]-CASE]

However, after a period of being in frequent use, such a construction is eventually reinterpreted as an adpositional one, thus turning into the following construction:

[NP-GEN [Adposition-CASE]]

It should also be mentioned that most relational nouns as well as postpositions in Beserman (and in standard Udmurt) arise from nouns (*bord* ‘near’ < **berd(i)* ‘wall, fence’; *diń* ‘near, by’ (lit. Udmurt¹⁷) < **din/diń* ‘tree butt’; *čož* ‘while’ (lit. Udmurt)¹⁸ < **čož* ‘time span’; *wamen* ‘across’ < **wəm* ‘cross direction’; *pâr* ‘through’ < **pjir* ‘drill’); several relational nouns also preserve their functions since Common Permic times (*puš* ‘inner space’ < **pučkz* ‘inner space’; *až* ‘front’ < *ож* ‘front’) (Csúcs 2005: 251–252). That is, the current situation in which most spatial relations are expressed by local cases and relational nouns denoting parts of physical objects is inherited from Common Permic. According to Csúcs (2005), there are only a few units arising from adjectives and verbs, such as *kuža* ‘along’ < **kuž* ‘long’ and *pumâi/pumit* ‘in front of’ < **pəŋi-* ‘meet’ + *-it* (a suffix which derives nouns from verbs). In other words, most of present Beserman and literary Udmurt non-inflected postpositions have

¹⁶ The same decision L. Grenoble (2014) offers for a highly-agglutinating language, Evenki, where the situation is very close to what we have described for Beserman Udmurt.

¹⁷ In Beserman this relational noun has grammaticalized into suffix *-ń* denoting localization DOMUS ‘at X’s’.

¹⁸ In Beserman this postposition has undergone further grammaticalization to a converb suffix *-idčož* denoting coincidence. In Udmurt *čož* ‘while’ cannot inflect, but in Beserman *-idčož* can attach the locative/illative suffix *-a-* and possessive markers: *-idčož-a|m, d, z, mâ, dâ, zâ*.

diverged from relational nouns by losing inflected case forms. From the point of view of semantics, it is interesting that Csúcs gives no examples of Permic postpositions derived from nouns denoting body parts. The unique source of postpositions in Permic languages seems to be names of geometrical parts of physical objects, unlike, for example, in African languages, which represent many cases of the grammaticalization of body parts into adpositions. This state of affairs seems not to have changed, at least in Udmurt: the only body parts that have started to grammaticalize into postpositions are *urdes* ‘flank’ and *boka* ‘flank’.

4. Borderline cases

Apart from the units that can safely be treated as relational nouns or (non-inflected) postpositions, which make up the vast majority of the units traditionally labeled as postpositions, there is also a periphery consisting of borderline cases. Some of the postpositions usually labeled as non-inflected allow for possessive markers (*punna* ‘for, because of’, *kasten* ‘because of’) or some of the spatial cases, starting from one (*pâr(ťi)* ‘through’ (61)) up to two or three accepted by all speakers, and an additional one or two accepted only by some speakers (*wamen* ‘over, across’ (57–59), *bárs-* ‘(to go) after’).

(56) *So pot-i-z es pâr / pâr-ťi.* (F)
 he go.out-PST-3SG door through / through-PROL
 ‘He went out through the door.’

(57) *Mon šâres wamen / ?wamen-ťi pot-i.* (F)
 I.NOM road across / across-PROL go.out-PST.1SG
 ‘I crossed the street.’

(58) *?Mon šâres wamen-ož veľt-i.* (F)
 I.NOM road across-TERM go-PST.1SG
 ‘I went up to the road crossing (lit. up to across the road).’

(59) *?Mon šâres wamen-išen ber-laň berečĕk-i.* (F)
 I.NOM road across-EGR back-APPR return-PST.1SG
 ‘From the road crossing (lit. from across the road) I went back.’

The prolative case marker in (56) and (57) does not add to the meaning of the utterance, since the prolative meaning is already expressed in the corresponding postposition. In the examples (58) and (59), by contrast, the

case markers imply new interpretation of the phrase; however, these examples are not approved by many speakers.

There is also a separate subclass consisting of words *mânda* ‘as many as’, *bâtća* ‘as big as’, *žučda* ‘as high as’, *kužda* ‘as long as’, *pašta* ‘as wide as’ and *murda* ‘as deep as’ which are also traditionally labeled as postpositions. A number of their properties indicate that such an interpretation is incorrect. On the one hand, in Beserman these units exhibit predicate-like properties: they attach the plural marker usually used with adjectives in the predicate position, do not govern anything and can follow any NP.

- (60) *Kartoška tue so bâtća-eś bud-em,*
 potato this.year this as.big.as-PL grow-PST.EVID
vedra-jân das-leś tros ug íter-â. (F)
 bucket-LOC ten-GEN2 much NEG.PRS.3 get.into-NEG.SG
 ‘Potatoes have grown so big this year that you cannot put more than ten of them into one bucket.’

- (61) *Jubo-os das metra kužda-eś. (F)*
 pillar-PL ten meter as.long.as-PL
 ‘The pillars are ten meter long.’

- (62) *Mânam âž-jos-â ferma-jân mânda. (F)*
 I.GEN sheep-PL-POSS.1SG farm-LOC as.many.as
 ‘I have as many sheep as [they have] in the farm.’

- (63) *So-len mânda koñdon-ez nokiñ-len=no evâl. (F)*
 that-GEN as.many.as money-POSS.3SG nobody-GEN=ADD NEG.EXIST
 ‘Nobody has as much money as he does.’

On the other hand, they allow for several spatial case markers and, in some contexts, the nominal plural marker:

- (64) *So-len mašina-ez piči garaž-a-z ug*
 that-GEN car-POSS.3SG small garage-ILL-POSS.3SG NEG.PRS.3
íter-â, a korka bâtća-ja-z íter-o-z. (F)
 get.into-PRS.SG but house as.big.as-ILL-POSS.3SG get.into-FUT-3SG
 ‘Her car wouldn’t get into a small garage, but would get into the one as big as a house.’

- (65) *kâk metra kužda-išen das metra kužda-oź (F)*
 two meter as.long.as-EGR ten meter as.long.as-TERM
 ‘two to ten meters in length’

On the basis of these properties these units can be included in two classes: in the class of predicative adjectives¹⁹ (see 60–62; it is their main function) and in the class of nouns (63–65).

5. Conclusion

The resulting set of classes and labels we propose for Beserman noun-like and adposition-like units is illustrated in Table 5 below.

Table 5. Part of speech tags for Beserman postpositions and similar classes

Prototypical members of the class	Traditional label	Proposed label
<i>korka</i> ‘house’, etc.	noun	noun
<i>pəl</i> ‘inside, among’ (INTER ²⁰), <i>puš</i> ‘inside’ (IN), <i>vəl</i> ‘up’ (AD), <i>jəl</i> ‘top’ (VERTEX, APEX)	inflected postposition	relational noun
<i>šarâš</i> ‘about’, <i>punna</i> ‘for, because of’, <i>kasten</i> ‘because of’	non-inflected postposition	postposition
<i>pâr(tí)</i> ‘through’, <i>kusp-</i> ‘during’, <i>wamen</i> ‘across’, <i>bârš-</i> ‘(to go) after’	non-inflected postposition	postposition (peripheral)
<i>mânda</i> ‘as many as’, <i>bâtća</i> ‘as big as’, <i>žužda</i> ‘as high as’, <i>kužda</i> ‘as long as’, <i>pašta</i> ‘as wide as’, <i>murda</i> ‘as deep as’	non-inflected postposition	predicative adjective/noun

The class of relational nouns, whose members refer to localizations, shares most properties with ordinary nouns, although frequencies of constructions in which they appear may be different for ordinary and relational nouns. The traditional class of non-inflected postpositions can be split into three classes. Part of such items whose function is to measure dimensions could in fact be described as occupying a borderline zone between predicate

¹⁹ The reasons for distinguishing predicative adjectives from other parts of speech in Beserman could become the theme for a whole paper. Very briefly, it is a class of words with different (not only adjective-like) meanings which are used only as predicates.

²⁰ In Table 6 the localizations referring to the vertical axis are given in accordance with Mazurova (2007), the rest with Plungian (2000).

adjectives and nouns. The other two parts could indeed be analyzed as postpositions which differ in to what extent they can show noun-like behavior; this division is based purely on syntactic and morphosyntactic properties and appears to be random from the point of view of semantics.

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Abbreviations

ADD	coordinative clitic
APPR	approximative case
ATTR	attributive
CAR	caritive case
CVB	converb
DEB	debitive
DETR	detransitive
EGR	egressive case
ELA	elative case
EMPH	emphatic particle
GEN	genitive case (used for marking dependents of NPs in all syntactic positions except that of direct object)
GEN2	objective genitive case (used for marking dependents of NPs in direct object position)
HES	hesitation marker
ILL	illative
ITER	iterative
NMLZ	nominalization (both in <i>-on</i> and in <i>-em</i>)
POSS	possessive marker
PROL	prolative case
PST.EVID	evidential past tense
PTCL	particle
PTCP.ACT	active participle
PTCP.PST	past participle (active or passive, formally coincides with nominalization)
REC	recessive case
TERM	terminative case

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