On 'on' in Ossetic and Uralic: from adpositions to case suffixes

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1. Introduction

In comparison to Indo-European languages, the Uralic language family is quite famous for its rich case inventories, although the number of Proto-Indo-European cases is usually reconstructed slightly higher (eight or nine) than that of Proto-Uralic (six to eight) (Janhunen 1982: 30–31; Clackson 2007: 92–100; Beekes 2011: 185–189; Aikio 2022). In other words, while Indo-European languages have largely driven their cases system down, some branches of Uralic languages have doubled or even tripled the number of cases since the dispersal of Proto-Uralic. However, increase of case inflection is not non-existent in Indo-European either, although it is remarkable that new cases have almost always emerged in languages with close contacts to other language families with more cases than Indo-European languages in general. Examples include the secondary cases in Lithuanian, Tocharian, Sinhala and Ossetic, spoken in the vicinity of Uralic, Turkic, Dravidian and Northeast Caucasian languages, respectively (Kulikov 2011; Milizia 2020: 25). Most of the Indo-European languages that have extended their case systems also show other traits of agglutinative morphology, atypical for most Indo-European languages (Belyaev 2020). However, as it happens, the largest and best-known inventories of Uralic cases are found in the Finnic languages such as Finnish and Estonian, as well as in Hungarian, although all them have always had a number of contacts with Indo-European.

Most studies of the development of Uralic and Indo-European case systems have focused on the general trends, or drifts, within the two families: Uralicists have been largely occupied with trying to understand the rise of new cases, while Indo-Europeanists have been concerned about the reconstruction of ancient case systems and the causes and effects of their gradual loss. This paper takes an alternative stance to a small part of the phenomena in question and provides a diachronic and synchronic comparison of a semantically restricted set of secondary cases in Uralic and Indo-European.

As the main focus of the present study is on the comparison of languages as distant as Finnic and Ossetic, it is instructive to begin by referring to the well-known fact that all Finnic languages except for Livonian have more than dozen morphological cases. Ossetic

in turn has eight (Digor) to nine (Iron) cases, which is one of the richest case inventories in Indo-European. To zoom into the main subject of the present paper, both language groups have cases labeled as "adessives" (in Ossetic grammatical tradition also known as the superessive) that are surprisingly similar in both form and function, as seen in Table 1.

Table 1. Nominative and adessive case forms in Livvi Karelian and Iron Ossetic

Livvi Karelian		Iron Ossetic			
Nominative	Adessive	Nominative	Adessive		
divan	: *divanal*	диван	: диваныл	'couch'	: 'on a couch'
stola	: *stolal*	стъол	: стъолыл	'table'	: 'on a table'
autobussu	: *autobusal*	автобус	: автобусыл	'bus'	: 'by bus'
pojezdu	: *pojezdal*	поезд	: поездыл	'train'	: 'by train'
dollar	: *dollaral*	доллар	: долларыл	'dollar'	: 'for a dollar'
tämä minuuttu	: *täl minuutal*	ацы минут	: ацы минутыл	'this minute'	: 'right now; in this minute'

To be sure, it is a sheer coincidence that these inflectional forms have nearly identical forms and functions in two unrelated languages spoken on the northwestern and southern borders of the Russian language that has given both languages the nouns seen in Table 1. However, it is worthwhile to address the questions of how and why these two adessive cases have emerged and what we can learn about these languages, and even Uralic and Indo-European morphology and syntax in general, by comparing the two cases and their cognates and functional analogues in other languages of the two families.

This paper is a modest tribute to the memory of Eugene Helimski (1950–2007), whose interests in language comparison lay mostly on the distant common past of Uralic and the neighboring language families. From a more historical perspective, this study also honors the work by Anders Johan Sjögren (1794–1855), the pioneering Uralicist who is also famous for his *Ossetische Sprachlehre* (1844) but barely combined these two fields of his expertise.

The structure of the paper is as follows: Section 2 provides a diachronic overview of the adpositional origins of the Ossetic adessive case (Iron *-ыл [-əl]*, Digor *-бæл [-bəl]*; also known as the superessive case) as well as the analogous origins of the Karelian adessive and the entire threefold set of so-called *l*-cases in Finnic; attention is also given to the development of analogical cases in the Permic and Hungarian branches of Uralic. Section 3 brings together the Ossetic and Uralic cases in a synchronic perspective. In particular, the substantial functional similarities and certain differences between the Finnic *l*-cases and Ossetic

adessives are discussed by comparing the latter to the North Karelian adessive(-allative), perhaps the most striking analogue to its Ossetic namesake.

Section 4 draws the threads together and provides a general comparison of the Ossetic and Uralic cases in question. It is concluded that while the development of new case affixes from adpositions is typologically common and natural (Kahr 1976; Hopper & Traugott 2003: 110–111; Heine 2009), such grammaticalization processes also always entail features of exceptionality: just like it is impossible to predict which adpositions will turn to case markers, and in what form, it would be next to impossible to reconstruct the origin of a case affix internally only, without its unaffixed cognates elsewhere. However, it is possible to identify factors that make certain languages and certain types of adpositions more prone to morphologization than others. This in turns helps us understand why the Karelian and Ossetic adessives seen in Table 1 can be so similar and so different at the same time[1].

2. The origins of the surface cases in Ossetic and Uralic

2.1. The origin of the Ossetic adessive

To begin with, the Ossetic case on which the present article focuses is also known as the *superessive* case (e.g., Belyaev 2010; Erschler 2020), but is here called the *adessive* case in line with Abaev (1964), Christol (1990), Kim (2003) and Cheung (2008); the case is also known as *æддагбынатон хауæн [ɜddagbɜnaton χawɜn]* ("external local case") in Ossetic or *местный внешний падеж* in Russian. An important reason for the present choice is the purpose of comparing the Ossetic adessive with its namesakes in Finnic.

The development of the case system of Ossetic and its agglutinative morphology in general has received much attention during last decades, and also competing views have been presented regarding the origins of some cases. As the development of the case system is very well described by Belyaev (2010; see also see also Kim 2003, Cheung 2008), we will not describe the development of other cases in detail here, with the exception of some details relevant for the development of the adessive case. Suffice to say that Ossetic cases include both elements inherited from the Proto-Iranian case system and later cases that have arisen from postpositions relatively recently, probably due to contact influence, although there has been dispute on the exact role an extent of it, and it has also been considered possible that the development of the agglutinative morphology of Ossetic in general might show traces of developments that are shared with some Middle Iranian languages, such as Sogdian (Belyaev 2020: 477–478).

Regarding the development of the Ossetic adessive case (Iron *-ɐl*, Digor *-bɜl*), there is a consensus that the Ossetic case developed from the Old Iranian adposition **upári* 'upon'

(Miller 1903; Cheung 2002; Kim 2003: 44), even if some phonological details remain unclear. Proto-Iranian *upári is reflected by Avestan *upairi* and Old Persian *upariy* and it also has a cognate in Vedic *upári*. These forms go back to Proto-Indo-European *upér. (AiWb s.v. *upairi*; EWAia I 220–221.) In the Old Iranian languages, reflexes of *upári are used both as adverbs and adpositions: the meanings are given in AiWb as (Adv.) 'oben; von oben her', (Prep.) 'oben, über, oben auf; über hin, über hinaus'. Avestan *upairi* also appears as a part of various compounds such as the adjectives *upairi.dahyav-* 'der über dem Land ist' and *upairi.karya-* 'des Wirksamkeit oben gelegt ist, von oben hier wirkend'. Cheung (2002: 87) argues more precisely that the Digor Ossetic adverb *bзlз* 'on, upon, by, for' is probably derived from the locative singular form *upár(y)ai. Ossetic *l* regularly develops from Proto-Iranian *ri from Proto-Iranian *ry/ri.

However, it is uncertain at which point of Ossetic linguistic prehistory did *upári became a postposition; in the Old Iranian languages it is used mostly as a preposition. A reflex of the same adposition is also used as a postposition in Khotanese Saka (Bailey 1979 s.v. *vīra*). Khotanese *vīra* 'on, upon; in; into; before?' can also be used as a preposition, however, and it is unlikely that the postpositional use in these two East Iranian languages is a common development. As many adpositions could be used as both prepositions and postpositions in the Old Iranian languages, it is plausible to assume that *upári could have been used as a postposition already in Proto-Iranian. It is also noteworthy that Ossetic adpositions are usually prepositions instead of postpositions, *æð [зd]* 'with' and *æнæ [зnз]* 'without' being the most remarkable exceptions; from this perspective it is, in a sense, more fitting for the postposed reflex of *upári to manifest itself as a bound morpheme. On the other hand, the first grammarians such as Sjögren (1844: 191, 221–223 *et passim*) did label *-зl/-bзl* as a postposition, although he wrote Iron *-зl* as a suffix (e.g., *хохvл* mountain.ADE but Digor *хоnх бöл* id.; cf. Example 2a below).

Although it is widely accepted that Ossetic adessive reflects *upári, Abaev (1958–1989) compares the Ossetic case rather with the Proto-Iranian adposition *awari 'upon'. This adposition is reflected by Ossetic *wзlз, wзl-* 'upper'. According to Cheung (2002), the development Iron *-зl*, Digor *-bзl* < *awari is unlikely for phonological reasons. However, the relationship between Iron *-зl* and its Digor counterpart is irregular, as no reflex of *b- is attested in Iron. The Iron case ending cannot be regularly derived from either *upári or *awari, so it remains a possibility that *awari has influenced the development of the Iron case and this could explain the lack of *b* in Iron, as is noted by Christol (1990: 33). The oldest attested form of the Iron adessive is *-wзl* (Christol 1990: 33; Thordarson 2009: 153–155), and it could be assumed that here *-w* is a reflex of earlier (Proto-Iranian) *-w- or *-b-, even though this would not be completely regular (according to Cheung 2002: 18–19, *b should be retained here and *w should give Ossetic *w*). It has also been considered possible that the absence of *-b-* in the Iron form is due to analogy from the inessive ending *-з* (Cheung 2008: 94; Kulikov 2009: 446, footnote 9). In any case, despite the obvious irregular relationship between the Iron and Digor forms, it appears that no one has suggested

that these case endings developed independently but it is usually assumed that we are dealing with a Proto-Ossetic phenomenon.

It is difficult to determine more precisely at which point of Ossetic linguistic history the adessive case was formed, but it must have been quite recently (Cheung 2008; Thordarson 2009; Belyaev 2010). There is some information on the relative chronology of the development of the case system. Belyaev (2010: 300–301) notes that the adessive appeared later than the dative: the Old Iranian evidence shows that the Proto-Iranian postpositions *upári* and *ana*/*anu* (which yielded the Ossetic dative) were attached to accusative, and the -*m*- that appears in the accusative of pronominal forms of Ossetic (for example, the demonstrative *amзn*) can be explained as a trace of an accusative form of pronouns. However, in no adessive forms any trace of earlier accusative can be found, so it must have appeared when the old accusative had been completely lost in Ossetic.

One additional problem is the idea that *bзlз* is derived from the locative form *upár(y)ai*, as no such locative form is attested anywhere else: in Old Persian, Avestan and Vedic, no declension of the preposition/adverb *upári* is found (AiWb 394–395; EWAia I 220–221), and it would be strange if a locative ending -*ai* had been added to this adverb which already has two old locative endings, -*i* (still productive in Indo-Iranian) and -*r* which probably had a locative function in Proto-Indo-European but was opaque in Proto-Indo-Iranian already (Dunkel 2014 s.v. *upér*). One could, theoretically, assume that the Ossetic adessive ending has a slightly more complicated history: from the adverb *upári* 'up, upon', a noun for 'surface' could have been formed, and this could have been grammaticalized and then used as a postposition and eventually as a case ending. This chain of development is admittedly speculative, but at least the Armenian noun *verǰ* 'Ende, Grenze' has been derived from the adverb *upér* (see Dunkel 2014 s.v. *upér*).

Regarding the development of Ossetic case system in general, it has been argued that the development of the rich case-system has been influenced by Georgian (Belyaev 2010: 312), as modern Georgian shows similar recent developments from postpositions (see Section 4 below). In addition to the adessive, also the comitative in -*imз* (only found in Iron) is of postpositional origin (Cheung 2008: 95; Belyaev 2010: 302–303), cf. the postposition *iwmз*/*ewmз* 'together'. Belyaev (2010: 294) also argues that two cases recently derived from postpositions should be added, the directive -*(ə)rdзm*/*(з)rdзmз* and the regressive -*(ə)rdəgзj*/*(з)rdigзj*.

2.2. The origin of Uralic surface cases

Among the Uralic languages, the Finnic languages, Hungarian and the southern dialects of Komi Permyak (Permic) display entire subsystems of surface cases. As mentioned above, the Proto-Uralic case system was much simpler, including only 6–8 cases, so the surface cases in these particular languages are much later innovations. Among these languages, Permyak has a system that is the most transparent from a diachronic point of view:

the Southern Permyak series of adessive *-l(l)ịn* ~ *-v(v)ịn*, superlative *-l(l)ẹ* ~ *-v(v)ẹ*, sublative *-l(l)iś* ~ *-l(l)iś* ~ *-v(v)ịś* ~ *-v(v)iś*, perlative *-l(l)eť* ~ *-v(v)eť* and superterminative *-l(l)eӡ* ~ *-v(v)eӡ* has developed from inflected forms of the postpositional stem *vịl-* (*vịlịn* 'on, upon', *vịlẹ* etc.) which are still retained as postpositions in most varieties of the language as well as in Komi Zyryan and Udmurt (Uotila 1938: 48; Bartens 2000: 79; Aikio & Ylikoski 2016: 111–113). The Permic postpositional or relational noun stem *vịl-* reflects Proto-Uralic *üli-*.

In earlier research, there were attempts to derive the Finnic *l*-cases from Proto-Uralic or Proto-Finno-Permian, and possible cognates in Mari and Permic have been suggested. The Mari and Permic case forms with *-l-* have rather possessive functions, and any connection with the Finnic *l*-cases is refuted by Aikio and Ylikoski (2016: 63). For other, now outdated theories on the development of the Finnic *l*-cases, see Aikio and Ylikoski (2016: 65–72). It can be mentioned here as a curiosity that also the late Eugene Helimski dealt shortly with the *l*-cases in his seminal work from 1982, mentioning in connection with his discussion of the *n*-element in various Ugric and Samoyed cases (Helimski 1982: 101–102) that the "Finno-Permic coaffix *l*" is of Nostratic origin, and that related elements can be found in Ob-Ugric (e.g., Mansi *ēlal* 'forward') and possibly Samoyedic (Kamass *d'ülla* 'на землю'). In light of modern Uralic historical comparative studies, Helimski's ideas regarding the *l*-cases do not seem plausible.

The Finnic system of surface cases can be derived from the reflex of the same postpositional stem as the Permyak cases, as has been recently shown by Aikio and Ylikoski (2016). Finnic adessive *-l-nA*, ablative *-l(l)-tA-* and allative *-l(l)-en* (> Finnish *-lla/ä*, *-lta/ä*, *-lle*) can be derived from earlier postpositional use of *üli-*; the functions of the Finnic cases are very similar to the etymologically related postpositions throughout the Uralic family — from South Saami, the westernmost Uralic language, up to Nganasan in the farthest east. Reflexes of *üli-* are used as postpositions in almost all branches of Uralic, with the notable absence in "Ugric" (see also Jalava & Grünthal 2020: 120–121 for a recent survey). Also in Finnic, in addition to the *l*-cases a set of postpositions *yllä*, *yltä*, *ylle* is found, but their use has traditionally been more limited to certain dialects and highly specific functions, and the current wide-spread use in modern Finnish is a later development (Aikio & Ylikoski 2016: 105).

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Hungarian displays a system of surface cases that, in line with most other local cases of Hungarian, is clearly of recent origin (see Sárosi 2003: 171 for a survey of diachrony of Hungarian case system), but many details in the development of this system are uncertain and not much modern research exist. The Hungarian delative *-ról*, *-ről* and sublative *-ra*, *-re* cases are usually derived from a Proto-Ugric noun *raŋV* that is reflected in Mansi as an adverb, for example South Mansi (TJ) *raŋ* 'außer' (Sárosi 2003: 169–172; UEW s.v. *raŋɜ*; EWUng s.v. *rá*).[2] This explanation seems plausible, although it is difficult to reconstruct

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[2] The *-l* element in the sublative case is usually assumed to be a reflex of the Proto-Ugric ablative *-l* (Honti 1997: 14). The same element is also found in elative *-ból*, *-ből* and probably in the es-

the detailed developments due to the reductive developments that have led to the modern Hungarian case markers. In any case, the development of these cases has taken place during the independent development of Hungarian as a separate language, probably through use of postpositional constructions, but no definite evidence of the postpositional stage exists. It seems that the *r*-cases were still postpositions in Old Hungarian when they were first attested in the 11th century *Establishing charter of the abbey of Tihány* and developed into case forms after that (Bárczi 1987: 512; Papp 2003: 79; Hegedűs 2013: 92).[3]

The Hungarian series of surface cases differs from those of Finnic and Permyak in that it is etymologically less symmetrical: the delative and sublative cases are recent developments that share the same origin, but the superessive case -*Vn* (expressing 'on') is inherited from the Proto-Uralic locative case ending *-*nA*, although it remains unclear how the originally unmarked locative case has developed a more limited and highly marked function (see Aikio & Ylikoski 2016: 115–116, 169–172). Here one can note, however, that the Hungarian superessive case is still used in various functions, certainly expressing more than simply 'on': for example, it is used in locative meaning with several place names (*Budapesten* 'in Budapest', *Magyarországon* 'in Hungary', *Balatonon* 'at the lake Balaton'), as well in temporal expressions such as *télen* 'in winter' and *nyáron* 'in summer', and in various kinds of spatial expressions (*egyetemen* 'at/in the university', *napon* 'in the sun(shine)'). It is also usually assumed that the -*an*/-*en*/-*on* in manner adverbs such as *szomorúan* 'sadly' and *vakon* 'blindly' also stems from the old *-*nA* locative, with some kind of split happening in Proto-Hungarian or Old Hungarian; needless to say, details of this "split" are highly unclear (Sárosi 2003: 172). It is also known that the Uralic locative has developed highly marked meanings in other languages too, such as in Finnic and Saami, where it is used as essive cases.

Many details concerning the developments of local cases in various Uralic languages are insufficiently known, and more research is needed. This is true especially regarding the history of various Ugric cases, such as the ablative *-*l* mentioned above and the series

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sive -*ul*, -*ül*, and its presumable ablative origin is most clearly visible in various adverbs such as *alul* 'from under'. Very little is known about the background and origin of this Proto-Ugric (?) case ending.

[3] The first attestation of the sublative case includes several phrases in the *Establishing charter*, such as the often quoted example (i), where *rea*, the predecessor of the modern Hungarian sublative in -*ra*/-*re*, was still probably a postposition:

(i) Old Hungarian (11th century)

   a. *feheruuaru rea meneh   hodu   utu   rea*
       Fehérvár   to   go.PRS.PTCP military road to

    Modern Hungarian (21th century)

   b. *Fehérvárra   menő   hadiútra*
       Fehérvár.SUBL go.PRS.PTCP military.road.SUBL
       'to the military road leading to Fehérvár'

of local cases including the "coaffix" *-*n* (see Helimski 1982: 101–102 and Honti 1997: 49 for possible explanations).

3. On the functions of the surface cases in Ossetic and Uralic

While the Ossetic and Uralic cases have been duly described in their respective grammatical traditions, and comparison of Uralic case systems has naturally had a central role in historical Uralistics, cases like the Karelian adessive seen in Table 1 have not been compared with its Ossetic namesake. Needless to repeat, the striking similarity of forms like *divanal* 'on a couch' and *autobusal* 'by bus' in Karelian and *диваныл [divanəl]* and *автобусыл [avtobušəl]* id. in Ossetic is only accidental, but it is nevertheless intriguing to have a closer look at the similarities and differences of such forms and their semantic counterparts in other Uralic languages. In what follows, the comparison is extended from single word forms to full sentences that manifest the cases in question in actual use. The description of the Finnic cases is mostly based on the authors' personal knowledge (cf., e.g., EKG; Vainik 1995; Grünthal 2003; Hakulinen et al. 2004; Aikio & Ylikoski 2016); the use and functions of the Ossetic adessive are described in more detail in numerous grammars (e.g., Sjögren 1844: 191, 221–223 *et passim*; Axvlediani 1963: 99–100; 1969: 28–30; Abaev 1964: 19; Bagaev 1965: 158–159; 1982: 17–18, 33; Isaev 1966: 43, 110).

Although the Finnic branch of the Uralic languages is most often represented by the national state languages Finnish and Estonian, it is illustrative to continue with North Karelian (or White Sea, Viena or Dvina Karelian) whose adessive(-allative) case is a result of the merger of the adessive and allative cases that have remained separate in the rest of Finnic. For the present purposes, the example sentences come from the Gospel of John, as this widely translated text enables us to find parallel translations in not only both Iron and Digor Ossetic, but also in many individual Uralic languages. The modern translations used here are generally considered idiomatic and of a high standard, which makes them reliable representatives of the languages in question, as well as a handy tool for future extensions of the present study. Bibliographical information on the sources is given under References according to the language labels.

To begin with the most prototypical common functions of the Ossetic and Karelian adessives, the following examples describe a state of affairs in which fish is being fried on (the surface of) burning coals (1).

(1) a. Iron Ossetic
     Былмæ куы рахызтысты, уæд **цæхæрыл** федтой кæсаг, йæ фарсмæ та — дзул.

     *bəlmɜ   kwə   raχəžtəštə,   wɜd   **sɜχɜrəl**   fedtoj   kɜšag,*
     shore.ALL when   PV.climb.PST.3PL then   ember.ADE   PV.see.PST.3PL fish

     jɜ   faršmɜ   ta   –   zul.
     3SG.PROCL.GEN   near   PTCL   bread

b. North Karelian

Rannalla   nouštuo   opaššettavat nähtih,   jotta šielä oli
shore.ALL   ascend.CVB disciple.PL   see.PST.3PL COMP there be.PST.3SG

hiilillä   *paistumašša kalua   ta   viereššä oli   leipä.*
coal.PL.ADE bake.PROG   fish.PART and beside   be.PST.3SG bread

'When they got out on land, they saw a fire of burning coals there with fish on it, and some bread.' (John 21:9)

Before continuing with more examples, it is illustrative to note that *цӕхӕрыл [sɜχɜrəl]* 'on embers' (1a), as well as virtually all examples of the Iron Ossetic adessives provided below, are matched by analogous adessives in the Digor Ossetic translation (1c). Similar adessives could also be provided from other Finnic languages (e.g., Finnish *hiilillä* 'on coals' or *hiilloksella* 'on embers'). As regards the origins of the Finnic *l*-cases (see Section 2), some of the cognates of the Karelian adessive marker *-lla/-llä* (1b) are seen in the postpositional phrases in the translations of this verse into South Saami, Komi Permyak and Tundra Nenets: *nelnie* (1d), *вылын [viḷịn]* (1e) and *ниня [nyinya]* (1f) all go back to the Proto-Uralic postposition or the locative relational noun **ülnä* (Aikio & Ylikoski 2016: 74–75).

(1)   c. Digor Ossetic

Билӕмӕ ку рахизтӕнцӕ уӕд уинунцӕ цӕхӕр, **цӕхӕрбӕл** кӕсалгӕ, цӕхӕрӕн ӕ рази ба дзол.

*bilɜmɜ   ku   raχiztɜncɜ   wɜd winuncɜ cɜχɜr, **cɜχɜrbɜl** kɜsɜlgɜ,*
shore.ALL   when PV.climb.PST.3PL then see.PST.3PL ember ember.ADE fish

cɜχɜrɜn   ɜ   razi   ba   zol.
ember.DAT 3SG.PROCL.GEN in.front.of.INE PTCL bread

d. South Saami

*Gosse gaadtan båetieh,   dållem vuejnieh, jïh guelieh laejpieh **sjïjli**   **nelnie**.*
when   shore.ILL come.3PL fire.ACC see.3PL and fish.PL   bread.PL coal.PL.GEN on

e. Komi Permyak

Нія петісö васис, казялісö керöм бисö. **Öгыррес вылын** вöлі чери, ордчöн куйліс нянь.

nija petişe   vaśis,   kaźalişe   kerem   bişe.
3PL   depart.PST.3PL water.ELA.3SG notice.PST.3PL make.PST.PTCP fire.ACC.3SG

e̩girres   ***viḷịn*** *ve̩li   čeri, ordče̩n kujlis   ńań.*
ember.PL.3SG on   be.PST.3SG fish beside lie.PST.3SG bread

f. Tundra Nenets

Я' ни' тана"махадандо' есабарта ту' ясо манэ"ӈа", **ту' ясо" ниня** халя юседавы, тикы' хавна нянь' танявы.

yah   nyih   tənaqmaxadantoh yesabarta tuh yaso   məneqŋaq,
land.GEN onto   ascend.AN.ABL.3PL sparkling ember.GEN see.3PL

tuh yasoq   **nyinya**   *xalya* *yúsyedawi°,* *tyikih*   *xaw° na* *nyany°h* *tənyawi°.*
ember.PL.GEN on   fish   lie.PST.PTCP   that.GEN   beside   bread.GEN exist.PST.PTCP

To give only one more example of this most prototypical meaning ('on (the surface of)') of the Ossetic and Finnic adessives, (2) refers to the ancestors of the Samaritan who have been praying on (the surface of) a mountain:

(2) a. Iron Ossetic

    Нæ фыдæлтæ **ацы хохыл** куывтой.

    nɜ   *fədɜltɜ*   *asə* **χοχəl**   *kwəvtoj.*
    1PL.PROCL.GEN father.PL this mountain.ADE pray.PST.3PL

    b. North Karelian

    Miän   *tuatot*   *kumarrettih ta*   *molittih*   *Jumalalla* **tällä**   **vuaralla,**   — –
    1PL.GEN father.PL bow.PST.3PL and pray.PST.3PL God.ADE   this.ADE mountain.ADE
    'Our ancestors worshiped on this mountain — –' (John 4:20)

Again, the Digor Ossetic equivalent of Iron *ацы хохыл [asə χοχəl]* is the adessive phrase *аци хонхбæл [aci χοnχbɜl]*, whereas the grammatical cognates of Karelian *tällä vuaralla* include Finnish *tällä vuorella*, South Saami *daan vaerien nelnie*, Permyak *эта керӧс вылын [eta kerɛs vi̬li̬n]* and Tundra Nenets *тюку хой' ниня [tyuku° χοy°h nyinya]* id.

From a general Finnic perspective, the similarity between the Ossetic and Karelian adessives is all the more remarkable in the following examples:

(3) a. Iron Ossetic

    Уыцы Адæймаг мын сыджыты змæст æрæвæрдта **мæ цæстытыл**, æз мæхи цæхсадтон æмæ райдыдтон уынын.

    wəsə adɜjmag mən   *səʒətə žmɜšt*   *ɜrɜvɜrdta*   *mɜ*   **sɜštətəl,**
    that   person   1SG.ENCL.DAT soil.GEN stir.PST.PTCP PV.put.PST.3SG 1SG.GEN eye.PL.ADE
    ɜž   *mɜχi*   *sɜχšadton*   *ɜmɜ rajdədton*   *wənən.*
    1SG 1SG.REFL.GEN wash.PST.1SG and PV.begin.PST.1SG see.INF

    b. North Karelian

    Hiän pani   *šylen*   *ta*   *muan*   *ševošta*   *miun*   **šilmillä,**
    3SG   put.PST.3SG saliva.GEN and soil.GEN mixture.PART 1SG.GEN eye.PL.ADE
    šiitä kävin   *pešeytymäššä ta*   *nyt*   *mie*   *niän.*
    then go.and.return.PST.1SG wash.PROG   and now 1SG see.1SG
    'He put mud on my eyes, the man replied, and I washed, and now I see.' (John 9:15)

While the use of the adessive in this function is all-Ossetic (Iron *мæ цæстытыл [mɜ sɜštətəl]* = Digor *мæ цæститæбæл [mɜ cɜstitɜbɜl]*), the situation is different in Finnic where the Karelian adessive or adessive-allative *šilmillä* does not equal to the Finnish adessive *silmillä* in this context, but the explicitly directional, non-stative allative *silm-i-lle(-ni)* [eye-PL-ALL-1SG] 'onto my eyes' is used instead. Indeed, it is only Karelian that has

merged the two cases into one, whereas even the remotest Uralic languages with unmor-
phologized postpositions have retained the distinction 'on' vs. 'onto' (e.g., South Saami
nelnie vs. *nille*, Permyak *вылын* vs. *вылö* and Tundra Nenets *ниня [nyinya]* vs. *ни' [nyih]*).

As regards the spatial functions of the cases in question, the most remarkable differ-
ence between Ossetic and Finnic — Karelian included — is that the Ossetic adessive is also
used to refer to paths and routes, not unlike its distant cognates such as Greek ὑπέρ and
English *over* (see Dunkel 2014 s.v. *upér*). Interestingly, such use is not found in Old Ira-
nian or Old Indo-Aryan reflexes of *upári (AiWb s.v. *upairi*; EWAia I 220–221). However,
while Finnic languages possess a number of adpositions and so-called prolative cases for
similar functions (Tikka 1992; Suoniemi-Taipale 1994), none of the *l*-cases is used. As
pointed out by Aikio and Ylikoski (2016: 109), the lack of pre-existing prolative cases as a
model for a new case seems to have prevented the postposition *yli* 'over' (Karelian, Fin-
nish) from grammaticalizing into a case suffix. On the other hand, the "prolative" function
of the Ossetic adessive is by no means limited to surfaces as paths, such as the surface of
the Sea of Galilee in (4a), but instead it has a more general, dimension-neutral meaning
'by; through' (5a, 6a). Karelian, like other Finnic languages, may resort to various adposi-
tions (4b, 5b) and the secondary prolative function of the elative 'from' case (6b).

(4) a. Iron Ossetic

   – — куы ацыдысты, уæд Йесойы федтой **денджызыл** къахæй цæугæ, — –
   *kwə   asədəštə,   wɜd   ješojə   fedtoj   **denǯəžəl** k'aχɜj   sɜwgɜ*
   when land.PST.3PL then Jesus.GEN PV.see.PST.3PL sea.ADE   leg.ABL go.PTCP

   b. North Karelian

   – – *kun   nähtih,   jotta Iisussa aštuu   **järven ualtoja   myöte** ta – –*
       when see.PST.3PL COMP Jesus   walk.3SG lake.GEN wave.PL.PART along   and
   '– — when they saw Jesus walking on the sea and — –' (John 6:19)

(5) a. Iron Ossetic

   Йæ фæндаг уыди **Самарийыл**.
   *jɜ   fɜndag wədi   **Šamarijəl**.*
   3SG.PROCL.GEN path   be.PST.3SG Samaria.ADE

   b. North Karelian

   *Hänen piti   matata **Samarijan kautti**.*
   3SG.GEN must.PST.3SG travel.INF Samaria.GEN through
   'He had to go through Samaria on the way.' (John 4:4)

(6) a. Iron Ossetic

   Дуарыл бацæуæг та фыстæн сæ фыййау у.
   dwarəl *basɜwɜg   ta   fəštɜn   šɜ   fəjjaw   u.*
   door.ADE PV.go.PTCP PTCL sheep.PL.DAT 3PL.PROCL.GEN shepherd be.3SG

b. North Karelian

*Ken mänöy **ovešta**, še   on   lampahien   paimen.*
who go.3SG   door.ELA that be.3SG sheep.PL.GEN shepherd
'But the one who enters through the gate is the shepherd of the sheep.' (John 10:2)

To return to the similarities between the two adessives, both are commonly used to code instruments and means such as vehicles of transportation, as already seen in the word forms for 'by bus' and 'by train' above (Table 1). The semantic motivation for this kind of (most obviously) secondary functions is seen in the potentially ambiguous example (7b) (cf. Aikio & Ylikoski 2016: 118–122).

(7) a. Iron Ossetic

Ма тæрс, Сионы чызг! Мæнæ дæ Паддзах фæцæуы **къælæуыл** бадгæйæ.

ma tɜrš,   Šionə   čəžg!
NEG fear.IMP.2SG Zion.GEN daughter

*mɜnɜ dɜ   padzaχ fɜsɜwə **k'ɜlɜwəl**   badgɜjɜ.*
there 2SG.PROCL.GEN emperor PV.go.3SG donkey.foal.ADE sit.PTCP.ABL

b. North Karelian

Elä   varaja, Siijonin tytär, šiun   Čuari tulou!
NEG.IMP.2SG fear.CNG Zion.GEN daughter 2SG.GEN Tsar come.3SG

*Hiän račaštau **nuorella oslalla**.*
3SG ride.3SG   young.ADE donkey.ADE
'Fear not, daughter of Zion! Your King is coming, sitting/riding on a donkey's colt!' (John 12:15)

Less ambiguous instrumentals are seen in the following examples denoting means of communication (8).

(8) a. Iron Ossetic

Фыст уыди дзуттаг, ромаг æмæ бердзенаг **æвзæгтыл**.
*fɜšt   wɜdi   zuttag, romag ɜmɜ berzenag **ɜvžɜgtɜl**.*
write.PST.PTCP be.PST.3SG Hebrew Roman and Greek   language.PL.ADE

b. North Karelian

*Šanat oli   kirjutettu   jevrein, latinan ta kreikan **kielillä**.*
word.PL be.PST.3SG write.PST.PASS.PTCP Hebrew.GEN Latin.GEN and Greek.GEN language.PL.ADE
'It was written in the Hebrew, Latin and Greek languages.' (John 19:20)

Another example of instrumental adessives is the fact that both Ossetic and Finnic cases are used to express prices of transactions, e.g. Karelian *dollaral* 'with a dollar (buy, sell for a dollar)' and Ossetic *долларыл [dollarəl]* id. (see Table 1 above). From a typological perspective, the instrumental functions of the adessive are very natural especially in Ossetic, where the case is also used to mark paths and routes (see above and cf. Latin *via*,

English *by way of* etc.). However, it may be added that in Ossetic, also the ablative case in -*æŭ [-зj]* is used for similar functions, and even more so than the adessive.

Although the above examples present the Ossetic and Karelian adessives as highly similar to each other, they certainly have many differences as well. Most importantly, the Karelian case has important functions in expressing possession: In all Finnic languages with *l*-cases, the adessive case is used for marking predicative possessors, and its directional counterpart, allative, is not only a case for coding goals ('onto') but also recipients ('to; for'); in Karelian, the adessive(-allative) has both functions. In Ossetic, the adessive is not commonly used in this way, but instead, the dative case codes both recipients and inalienable possessors; for alienable possessors, the allative case is used, but not the adessive (Belyaev 2010: 314–315). However, the adessive may occasionally occur with some inalienably possessed items (David Erschler, p.c.).

As for the third main role in sentences expressing possessive relationships, donors are coded with the cases labeled as ablatives in both languages, but the crucial difference between the two is that while the Ossetic ablative in -*æŭ [зj]* is the only case for sources and donors (or "possessive sources" or "sources of possession"; see Kittilä & Ylikoski 2011: 58), Karelian and other Finnic ablatives express source only on a par with the other *l*-cases, i.e., movement off a surface. The default case for 'from' is the elative (in contrast to the 'off' ablative).

Although it is possible to present a number of functions, example sentences and individual word pairs (Table 1) that make the Ossetic and Karelian adessives look very similar to each other, it is also possible and certainly useful to look at both cases within the contexts where they belong in their respective languages. To keep things simple, Table 2 still confines the two adessives and other local cases into some of their most prototypical functions within the realm of spatial and possessive expressions.[4]

Table 2 shows that the division of labor among the five cases of both languages is quite different after all. On the other hand, the table does not even depict the instrumental or prolative functions of the adessives in question, and the list of functions of these cases could be continued with many less salient similarities and differences that can be easily detected by comparing the two adessives in the existing descriptions or parallel texts. For example, both languages also use their adessives in expressions of time, as will be seen in the following example. Some verbs such as Ossetic *æуу\u00e6ндын [зwwзndən]* 'believe (in)' may take the adessive as its obligatory argument in one language but not in the other. However, occasionally one comes across parallel passages in which the two languages use their adessives in multiple similar ways. To give an example from Karelian and Digor[5] Ossetic, (9) is a case in point:

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[4] For a wider picture of Uralic local case systems from a similar perspective, see Kittilä and Ylikoski (2011).

[5] Although the preceding Ossetic example sentences come from Iron, all Iron adessives seen above have analogous adessives in the Digor translation of the Gospel of John: In addition to

Table 2. The markers of directions, locations and sources,
and their possessive counterparts in North Karelian and Iron Ossetic

	Direction		Location		Source	
Karelian:						
Default local cases	illative	*-h*	inessive	*-šša*	elative	*-šta*
Surface cases	**adessive**	*-lla*	**adessive**	*-lla*	ablative	*-lta*
Cases of possession	**adessive**	*-lla*	**adessive**	*-lla*	ablative	*-lta*
Ossetic:						
Default local cases	allative	*-mз*	inessive	*-ə*	ablative	*-зj*
Surface cases	**adessive**	*-əl*	**adessive**	*-əl*	ablative	*-зj*
Cases of possession	dative	*-зn*	dative (inalienable) allative (alienable)	*-зn* *-mз*	ablative	*-зj*

(9) a. Digor Ossetic

Надбæл æлдарбæл фембалдæнцæ æ цагъартæ æма ин загътонцæ: «Дæ биццеу фæдздзæбæх æй». «Цал **сахаттебæл** ин фенцондæр æй?» — фæрсуй сæ е. Загътонцæ ин: «Æзинæ имæ, бонæй, фиццаг **сахатбæл**, тæвдæ нæбал адтæй».

nadbзl	***зldarbзl***	*fembaldзncз*	*з*		*caʁartз*
way.ADE	lord.ADE	PV.meet.PST.3PL	3SG.PROCL.GEN		slave.PL

зma	*in*	*zaʁtoncз:*	*dз*		*biccew*	*fзʒʒзbзχ*	*зj.*
and	3SG.ENCL.DAT	say.PST.3PL	2SG.PROCL.GEN		son	PV.healthy	be.PRS.3SG

cal	***saχattebзl***	*in*	*fencondзr*	*зj?*
how.many	hour.PL.ADE	3SG.ENCL.DAT	PV.easy.CPV	be.PRS.3SG

fзrsuj	*sз*	*je.*	*zaʁtoncз*	*in:*	*зinз*
ask.3PL	3PL.PROCL.GEN	3SG	say.PST.3PL	3SG.ENCL.DAT	yesterday

imз,	*bonзj,*	*ficcag*	***saχatbзl,***	*tзvdз*	*nзbal*	*adtзj.*
3SG.ENCL.ALL	by.day	first	hour.ADE	heat	no.longer	be.PST.3SG

цæхæрбæл [cзχзrbзl] seen in (1c) and the phrases *аци хонхбæл [aci χonχbзl]* and *мæ цæститæбæл [mз cзstitзbзl]* mentioned in connection to (2a) and (3a), Iron *денджызыл [denʒзžзl]* (4a), *Самарийыл [Šamarijзl]* (5a), *дуарыл [dwarзl]* (6a), *къæлæуыл [k'зlзwзl]* (7a) and *зуттаг, ромаг æмæ бердзенаг æвзæгтыл [zuttag, romag зmз berzenag зvžзgtзl]* (8a) are echoed by *денгизбæл [dengizbзl], дуарбел [dwarbel], Самарий бæстæбæл [Samarij bзstзbзl], къæлæубæл [k'зlзwbзl]* and *дзиуиттаг, ромаг æма грекъаг æвзæгтæбæл [ʒiwittag, romag зma grek'ag зvzзgtзbзl]* in Digor.

b. North Karelian

Matalla *hänen käškyläiset tultih* ***hänellä*** *vaštah ta*
journey.ADE 3SG.GEN servant.PL came.PST.3PL 3SG.ADE towards and

šanottih: «Poikaš on terveh». Mieš kyšy heiltä,
say.PST.3PL son.2SG be.3SG healthy man ask.PST.3SG 3PL.ABL

mih aikah poika alko toipuo. Hyö šanottih:
which.ILL time.ILL son begin.PST.3SG recover.INF 3PL say.PST.3PL

«Eklein ***šeiččemennellä tunnilla*** *kuume läksi».*
yesterday seven.ORD.ADE hour.ADE fever depart.PST.3SG

'And while he was still on the way, his servants met him with the news that his son was healthy. When he inquired as to the time when his son got better, they said to him, 'Yesterday, at one in the afternoon (at the seventh hour), the fever left him.''
(John 4:51–52)

In what follows, we will evaluate the reasons behind the similarities and differences of these and analogous cases from a diachronic perspective.

4. Discussion and conclusion

It goes without saying that the functional and even formal similarity of the Ossetic and Karelian adessives is in many ways coincidental, but on the other hand both appear as quite natural outcomes of the cross-linguistically common tendencies in which postpositions may be grammaticalized into case suffixes, and spatial expressions acquire more abstract functions such as expressing instrumental and possessive relations.

The cases and case systems described above are not typologically unique, but not common either. Although Ossetic with its eight or nine cases has clearly more cases than what is typical in Indo-European languages or even globally (Iggesen 2013), and Finnic with more than dozen cases is even more remarkable — also within the Uralic family — similar cases can be found especially in Northeast Caucasian languages. As pointed out by Blake (2001: 151), when "languages have large case systems it is always through the elaboration of the local cases", but on the other hand, local cases specialized on coding location on the vertical axis are not common either. In fact, it appears that such cases may be limited to the Uralic family and the Caucasus region (cf. Blake 2001: 151–154; Levinson 2003: 98–110; Lingtyp 2021). In any case, development of new local cases seems to be one of the easiest ways to increase the number of cases in a language, as a grammaticalization process of a series of spatial adpositions may result in the emergence of a new series of three or even four or five local cases simultaneously (Aikio & Ylikoski 2016: 111–113), whereas other less common innovations such as the Komi consecutive case specialized for coding cause and reason — as well as much more common comitative cases — are bound to develop individually.

While the Finnic, Hungarian as well as Permyak surface cases have developed as full series, this can happen in many ways. In Finnic, a series of three *l*-cases developed simultaneously, although two of those later merged into one in Karelian. In Southern Permyak, as many as five surface cases have been grammaticalized in analogy to the pre-existing five local cases. In Hungarian, two *r*-cases have developed and been accompanied by an earlier unmarked case as the third member of the new case series. On the other hand, the series of the three vicinal cases in Hungarian provides a fascinating example of analogy, or the Neogrammarian *Systemzwang*, as the three case suffixes come from three entirely different (yet somewhat unclear) sources, and the series of the three default "*b*-cases" in -*ba*, -*ban* and -*ból* are functionally paralleled by the etymologically asymmetric series of case suffixes -*hoz*, -*nál* and -*tól*.

To turn our eyes to the Caucasus, Northeast Caucasian languages are known for their extremely large and symmetrical case systems that almost blow up the traditional Euro-centric concept of case (Comrie & Polinsky 1998; Kibrik 2003). Quite interestingly, the Ossetic language with its sole surface case appears as an outlier within its Caucasian context; this fits the detailed arguments of Belyaev (2010; 2020: 478–480), who has noted that Georgian (and not other neighboring languages) is the most probable source of influence in the development of the secondary cases, as modern Georgian shows developments of similar cases from postpositions as Ossetic, including the superessive and comitative. (See also Erschler (2009) for a recent case study of contact-induced features in Ossetic grammar.)

In fact, even though belittlingly characterized as a "secondary case" at best (Vogt 1971: 68–69) and most often entirely dismissed in the inflectional paradigms of the language, the Georgian superessive in -*ze* appears to be the closest imaginable analogue to the Ossetic adessive (superessive) case: it is used not only in the stative 'on' function and as its directional 'onto' counterpart, but also to refer to instruments such as vehicles of transportation as well as time. In the modern Bible translation, the verses discussed in (1–2) and (7) in Section 3 are translated with superessives such as — – ნაკვერცხლები და მათზე — – (*nak'vertskhlebi da mat-ze* ember.PL and they-SUPER '– — embers and on those (embers) — –'), ამ მთაზე (*am mta-ze* this.DAT mountain-SUPER 'on this mountain'), თვალებზე (*tvaleb-ze* eye.PL-SUPER 'on(to) the eyes', ჩოჩორზე (*chochor-ze* young.donkey-SUPER 'on a young donkey').

In any case, one cannot avoid the impression that if an Indo-European language will ever again turn the PIE preposition **upér* into a case suffix, it is most likely that this will also happen in a relatively agglutinative language in the vicinity of case-rich languages of neighboring families[6]. The significance of agglutinative morphology might be the reason why the Indo-European neighbors of Uralic have not developed analogous cases.

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[6] It was not until reading the final proofs of this paper that we learned that this may actually have already happened, as the enclitic postposition — or the superessive case suffix — -(*ce*)*r* in Kon-

When the Ossetic adessive is viewed from a Uralic as well as from a more global perspective, perhaps the most interesting feature is that the adessive has actually a rather asymmetric position within the Ossetic case system (the same could be said of the Georgian superessive as well). In light of the system of the local and possessive cases presented in Table 2, the most symmetric counterpart of the Ossetic adessive is the dative in -*ən*, the case specialized for coding recipients and inalienable possessors. When compared with the Karelian adessive as presented in the same table, the main functions of this case mostly cover those of the Ossetic adessive and dative together. However, this holds true only within the confines of the spatial and possessive functions represented in Table 2; it must be remembered that while the two adessives also share the function of coding instruments and time, one of the major differences between the two is that the Ossetic adessive also commonly expresses paths and routes on not only surfaces ('over') but also in other dimensions ('by; through') (see Section 3).

Although the position of the Ossetic adessive in the language may seem unfamiliar to those more acquainted with large Uralic and Northeast Caucasian case series, the difference becomes fully understandable in light of the origins of these cases. Although both Karelian -*l(la)* and Ossetic -*əl* go back to adpositions whose semantics can be condensed into the meaning 'on (the surface of)', only the latter seems to go back to a single word (Old Iranian **upári* < Proto-Indo-European **upér*). In Karelian and the rest of Finnic, as well as in Permic and Hungarian, new case series have emerged as series because postpositions based on **üli-* and other relational nouns (see, e.g., Baker 1985; Tikka 1992; Aikio & Ylikoski 2016) occur in series of postpositions and have most likely done so ever since Proto-Uralic. Northeast Caucasian case systems are even more overwhelming in this respect (Comrie & Polinsky 1998; Kibrik 2003).

It is common to see references to the popular idea of tripartite source–location–goal local case systems as typical of Uralic, but what is more characteristic of the family is the fact that new local cases come not only in threes but even fives — the governing factor being the symmetrical relationship of most local case series and postpositional series that may ultimately lose their independence and grammaticalize into case markers (see Ylikoski 2011: 244–246). The popular idea of multiple tripartite local case series as especially typical of Uralic is apparently based on the coincidence that the best-known languages of the family — Hungarian, Finnish and Estonian — are the best representatives of this type which is, however, foreign to all other branches of the family.

As regards the prerequisites of new cases in Ossetic, it is plausible that one of the most important factors in developing the adessive in -*əl* as well as other secondary cases

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kani (Indo-Aryan, spoken in the vicinity of Kannada (Dravidian)) has been considered a descendant of Old Indo-Aryan *upári* and ultimately that of Proto-Indo-European **upér* (see, e.g., Janardhan 1991: 118–119; Miranda 2003: 743–744; Peterson 2022: 246). We wish to thank John Peterson for making us aware of this phenomenon.

such as the comitative is that for an Indo-European language, Ossetic nominal inflection is highly agglutinative and in many other ways a rather exceptional representative of Indo-European or even its Iranian branch (Kahr 1976: 142; Milizia 2020: 1). Although Belyaev (2020: 479) notes that agglutinative morphology has developed in various Indo-European languages (Tocharian, Armenian, various Indo-Aryan languages) and argues that it is possible but thus not necessary for language contacts to be the reason for such developments, it seems obvious that in most of these cases language contact has played an important role. It is in any case true that some other East Iranian languages (Sogdian, Yaghnobi) too have developed agglutinative morphology, with the same collective suffix (> Ossetic -tɜ) using to form plurals (Belyaev 2020: 479), so developments towards agglutinative morphology may have started early in some form of Pre-Ossetic and they have since been enforced by language contacts in the Caucasus.

Finally, a few words can be added about the nearly identical form of the Ossetic and Finnic adessives despite their disparate origins. Much of this can be explained by referring to the global and local tendencies that have directed the development of Proto-Uralic *ülnä to -l(la) in Finnic, and Proto-Indo-European *upér to -əl and -bɜl in Iron and Digor Ossetic, respectively. Individual sound laws aside, a major factor that has made the two ancient adpositions to diminish into a single lateral — possibly preceded or followed by a vowel — is that grammaticalization (univerbation) of adpositional phrases to new case forms of nouns is, by definition, something unexpected in light of the general, regular phonological and morphophonological development of a given language. It has also been observed that the other Ossetic cases, such as the comitative, also include unexpected phonological developments (Cheung 2008); this is also in line with Finnic comitatives. In fact, the Finnish inessive case form of *kansa* 'people', *kansassa* is the only truly expected (and in this case virtually unchanged) successor of its Proto-Finnic predecessor *kansassa*, whereas its grammaticalized offsprings such as the Estonian comitative -*ga* or the Finnish colloquial postposition *kaa* 'with' are definitely not.

In other words, there are no regular phonological rules in the history of Ossetic or Finnic — or Permyak or Hungarian for that matter — that would have automatically turned adpositions into affixes. The only regular alternative would have been to preserve the original adpositions as such. However, the resulting case suffixes are exactly the opposite: their outward appearance is such that they hardly could function as free-standing words. As in most other languages, bound morphemes in Ossetic and Finnic are short, often consisting of only one or two phonemes and zero to one syllable.

One may also be reminded of Jakobson's (1965: 29) statement that "affixes, particularly inflectional suffixes, in languages where they exist, habitually differ from the other morphemes by a restricted and selected use of phonemes and their combinations", but in light of Bybee's (2005: 181) re-evaluation of this claim, the lateral phonemes seen in the adessives in question are not that special to the way or another: At least in a typological per-

spective, the use of liquids are no more or less common in affixes than lexical stems. On the other hand, when trying to understand why *ülnä has turned into -l(la) and *upér to -əl and not something different, it must be remembered that if case suffixes are to consist of minimally one phoneme in these languages, there are not many unused, vacant phonemes to choose from, however haphazardly a bisyllabic adposition may be reduced to only one syllable or even less.

In conclusion, the comparison of the Ossetic and Uralic surface cases shows that while their development has been entirely natural *per se*, grammaticalization of independent words to bound morphemes is always an exceptional process whose end result cannot be foreseen. Only free words like Persian *(a)bar* and Komi *vi̮li̮n* are mostly regular reflexes of Proto-Indo-European *upér* and Proto-Uralic *ülnä*, respectively, but new cases like the adessives in Iron Ossetic (-əl) and Livvi Karelian (-l) are far from it. However, it has been possible to identify a number of factors — such as relatively agglutinative morphology as well as language contacts — that have made these quite similar yet typologically less common although not unique cases emerge and develop in the way they have done and found their individual niches within their language-specific environments.

Acknowledgments

Nonstandard abbreviations used in glosses

ADE	adessive	ELA	elative	PROCL	proclitic
AN	action nominal	ENCL	enclitic	PTCL	particle
CNG	connegative	ILL	illative	PV	preverb
CPV	comparative	INE	inessive	SUBL	sublative
CVB	(anterior) converb	ORD	ordinal	SUPER	superlative
		PART	partitive		

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