

The origin of the Finnic *l*-cases¹

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Abstract. The Finnic languages, among them Finnish and Estonian, are well known for their large inventories of cases. As large case systems tend to develop especially through agglutination of adpositions, it is noteworthy that none of the thirteen cases reconstructed for Proto-Finnic have traditionally been considered to derive from adpositional phrases. However, in this paper, such an explanation is presented for the origin of the Proto-Finnic external local cases or the so-called *l*-cases, i.e. the adessive (*-*l*lA < *-*l*-*n*A), the ablative (*-*l*-*t*A), and the allative (*-*l*-*en*). The element *-l-* has traditionally been equated with a derivational suffix indicating locality, but against the received view this paper argues that the endings emerged via agglutination of the Proto-Uralic postpositions **ül-nä* [on-LOCATIVE], **ül-tä* [on-ABLATIVE] and **üli-η* [on-LATIVE], based on the relational noun root **ül(i)-* ‘location on/above’. The argumentation is based on rich comparative data from the Saami, Mordvin, Permic and Samoyed branches of the Uralic language family. Through a thorough analysis of phonological, morphological, syntactic and semantic properties of the Finnic *l*-cases and their proposed cognates, it is argued that the received view on the origin of the *l*-cases must be rejected as an illegitimately canonized hypothesis that was never tested through systematic application of the comparative method. Instead, the comparative analysis strongly supports the new hypothesis of the postpositional origin of the *l*-cases.

Keywords: Finnic languages, local cases, grammaticalization, Saami languages, Uralic languages

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1. Introduction

In linguistic literature the Uralic languages are well-known for their large case inventories. Extensive case systems consisting of over ten cases are found in Finnic, Mordvin and Permic languages and in Hungarian. Even though such case systems are characteristic of many modern Uralic languages, they are not considered primary to the language family: only six cases are traditionally reconstructed to Proto-Uralic (Janhunen 1982: 30–31), which is not a typologically unusual number. Hence, the question of how the extensive case systems characteristic of many branches of the family have developed has become a central research problem in Uralic historical morphology.

In the western part of the language family the case system evidently became enriched already at an early period. Through a comparison of Saami, Finnic and Mordvin languages one can reconstruct as many as thirteen cases or case-like suffixes, which are reflected in at least two of these three language branches (see Table 1). The most important innovation common to these languages (and to Mari as well) involves a reorganization of the local case

system. It is assumed that Uralic originally had a tripartite system of local cases: a static locative case (*-*nA*), an ablative case signifying movement away from a point of reference (*-*tA*) and a directional “lative” case signifying movement to a point of reference (*-*ŋ*). In the western branches of Uralic (Saami, Finnic, Mordvin, Mari) these cases are attested in predominantly grammatical functions, and the lative has largely lost its productivity; it is preserved as a productive case only in Mordvin. The local functions were apparently taken over by a new set of local cases built with a so-called coaffix *-*s*-. Inessive *-*s-nA*, elative *-*s-tA*, and illative *-*s* or *-*s-in* (perhaps from earlier *-*s-iŋ*; in Mordvin languages the illative ending is merely *-*s*). As recently argued by Ylikoski (2016), it is likely that the western Uralic coaffix *-*s*- ultimately goes back to Proto-Uralic and is cognate with the Samoyed local case coaffix *-*ntə*-. In any case, the development of these so-called *s*-cases evidently antedates the topic of the present paper, the emergence of the so-called *l*-cases in Proto-Finnic.

Case	Suffix	Saami languages	Finnic languages	Mordvin languages
nominative	*-Ø (pl. *- <i>t</i>)	+	+	+
genitive	*- <i>n</i>	+	+	+
accusative	*- <i>m</i>	+	+	+
essive	*- <i>nA</i>	+	+	–
translative	*- <i>ksi</i>	(+)	+	+
partitive/ablative	*- <i>tA</i>	+	+	+
lative	*- <i>ŋ</i> (? ~ *- <i>k</i> , *- <i>n</i>)	(+)	(+)	+
prolative	*- <i>ko</i>	(+)	–	+
inessive	*- <i>snA</i>	+	+	+
elative	*- <i>stA</i>	+	+	+
illative	*- <i>s</i> ~ *- <i>sin</i>	+	+	+
comitative	*- <i>jnV</i>	+	+	+
abessive	*- <i>ptAk</i>	+	+	–

Table 1. Reconstructed case endings in Saami, Finnic and Mordvin languages. The symbol (+) indicates that the ending is found only in adverbs or relic forms, but not as a productive part of the case system.

There is also a crucial feature which distinguishes the local case systems of most Finnic languages from those of Saami and Mordvin (and almost all other Uralic languages): an opposition between the so-called ‘internal’ and ‘external’ local cases. In addition to the ‘internal’ local cases formed with the coaffix *-*s*-, a series of ‘external’ local cases that are

formed with the coaffix **-l-* emerged in Proto-Finnic. In contrast to this traditional terminology we prefer to call these *s-cases* and *l-cases* according to the coaffix in each series.² The paradigm of local case endings reconstructed for Proto-Finnic can be seen in Table 2.

	CASE	PROTO-FINNIC	PRE-FINNIC
S-CASES:	LOCATIVE	inessive <i>*-ssA</i>	< <i>*-s-nA</i>
	SEPARATIVE	elative <i>*-stA</i>	< <i>*-s-tA</i>
	DIRECTIONAL	illative <i>*-hVn</i>	< <i>*-s-in</i>
L-CASES:	LOCATIVE	adessive <i>*-llA</i>	< <i>*-l-nA</i>
	SEPARATIVE	ablative <i>*-ltA</i>	< <i>*-l-tA</i>
	DIRECTIONAL	allative <i>*-l(l)en</i>	< <i>*-l(l)-in</i>

Table 2. The Proto-Finnic local case endings.

For the sake of readers unacquainted with the case systems of Finnic languages, the semantic opposition between the *s-cases* and the *l-cases* can be illustrated with the following set of Finnish examples (see Table 3).

		<i>vuode</i> ‘bed’	<i>talo</i> ‘house’
S-CASES:	INESSIVE	<i>vuoteessa</i> ‘in the bed’	<i>talossa</i> ‘in the house’
	ELATIVE	<i>vuoteesta</i> ‘out of the bed’	<i>talosta</i> ‘out of the house’
	ILLATIVE	<i>vuoteeseen</i> ‘into the bed’	<i>taloon</i> ‘into the house’
L-CASES:	ADESSIVE	<i>vuoteella</i> ‘on the bed’	<i>talolla</i> ‘at the house’
	ABLATIVE	<i>vuoteelta</i> ‘off the bed’	<i>talolta</i> ‘from the house’
	ALLATIVE	<i>vuoteelle</i> ‘onto the bed’	<i>talolle</i> ‘to the house’

Table 3. The semantic opposition between *s-cases* and *l-cases* in Finnish.

The six local cases are found in all Finnic languages, except for most dialects of Livonian, where *l-case* endings are attested in non-productive relic forms only. The extinct Salaca dialect of Livonian had a set of productive *l-cases*, which has sometimes been attributed to

² Especially the traditional term ‘internal local cases’ (Finnish *sisäpaikallissijat*) seems to be a misnomer, as the *s-cases* do not only signify a location ‘inside’ or ‘in the interior of’ something. Instead, the *s-cases* in Finnic languages can be seen as a semantically unmarked set of local cases, as opposed to the *l-cases* signifying a location in the exterior.

Estonian influence (for different points of view on this, see Sjögren & Wiedemann 1861: 37–38, 72–74; Itkonen 1957a: 310–311; Kettunen 1957: 429–430; Itkonen 1957b: 435–436).³ However, no clear cognates to the Finnic *l*-cases are found in more distantly related Uralic languages. Mari and Permic languages also have cases built with a coaffix **-l-*, but their functions are possessive rather than local. Even though the Finnic and Mari-Permic *l*-cases have often been seen as historically related, they have usually been considered the result of convergent development; hence, no *l*-cases are normally reconstructed to the proto-language common to Finnic, Mari and Permic (i.e., Proto-Finno-Permic in the traditional taxonomical scheme).⁴

In this study our aim is to examine the historical background of the Finnic *l*-cases, applying the received methods of comparative linguistics. As will be shown below, other Uralic languages – especially Saami and Permic languages – yield decisive evidence of the historical origins of these cases. In addition, we will also present some hypotheses of the possible origins of the *l*-cases in Mari and Permic languages, even though these are not the main object of our study.

2. A review of previous research

Apparently the first scientific work in which Finnic *l*-cases have been compared to forms in other Uralic languages is Rasmus Rask's Saami grammar, *Ræsonneret lappisk Sproglære efter den Sprogart, som bruges af Fjædlapperne i Porsangerfjorden i Finmarken* (1832). Rask equated the Finnic *l*-cases with the North Saami postpositions *alde* 'on' and *ala* 'onto', and also suggested that some North Saami adverbs built with the coaffix *-l-* (e.g. *davil* 'from north', *olggul* 'from outside') had developed from the same source:

[Finsk:]	
Tilf[ormen]	tòlille panna, lægge på Stolen;
Vedf[ormen]	tòlilla istua, sidde på Stolen; [– –]
Fraf[ormen]	tòlilda ottá, tage bort af Stolen;
[– –]	

³ In Karelian, the allative (**-lle*) has rather recently coalesced with the adessive in *-lla*.

⁴ The internal classification of Uralic languages is matter of ongoing dispute, and currently there is no consensus as to whether 'Finno-Permic' forms a valid node within Uralic; see, e.g., Salminen (2002) for a critical view.

[– –] Til Bevis, at den også har været den oprindelige i Lappisk, må tjene: [– –]

Tilf. vare-ala, *op på Bjærget*; davvele, *mod Norden*; vazze olggole uwsa ! *Gå udenfor Dören !*
 Vedf. vare-ald' (aldn), *på Bjærget*; davvelest', *nord på*; olggolest', *uden for*;
 Fraf. vare-ald, *fra Bjærget*; davelde, *norden fra*; olgold, *uden fra*;

(Rask 1832: 35–36.)

[Finnish:]

to-f[orm] tòlille panna, *put on the chair*;
 at-f[orm] tòlilla istua, *sit on the chair*; [– –]
 from-f[orm] tòlilda ottá, *take off the chair*;
 [– –]

[– –] For proof that this has also originally been the case in Saami serves: [– –]

to-f. vare-ala, *onto the mountain*; davvele, *northward*; vazze olggole uwsa ! *go outside the door !*
 at-f. vare-ald' (aldn), *on the mountain*; davvelest', *in the north*; olggolest', *outside*;
 from-f. vare-ald, *from the mountain*; davelde, *from north*; olgold, *from outside*;

Rask based this comparison on his observations of the functional similarity between Finnic *l*-cases and Saami *al*-postpositions. He hypothesized that Saami also had originally had a set of *l*-cases, but the case endings had split off the nouns and become independent words, retaining their original suffixal status in only certain adverbs:

De næste tre Former have unægtelig fundet Sted i Sproget, som er indlysende af *d a v v e l e* , *d a v v e l e s t'* , *d a v e l d* , men disse Endelser bruges nu, som det synes, kun i nogle gamle No. der ere ufuldstændigen tilovers, som blotte Forholdsord eller Biord; f. E. *b a ʒ j e* (*p a ʒ j e*) , *som er oventil*, haves i disse Former, aldeles overensstemmende med det finske *p æ* (*p æ æ*) , *Hoved*, der også i de samme Former bruges på samme Måde, således:

	<i>Finsk.</i>	<i>Lappisk.</i>
Tilf.	pælle,	bagjele, <i>op over, op på</i> ;
Vedf.	pællæ,	bagjelest', <i>oven over, oven på</i> ;
Fraf.	pældæ,	bajeld, <i>ovenfra, nedenfra</i> .

[– –] Men disse Endelser forekomme, som sagt, kun i nogle enkelte Ord; i de fleste Tilfælde ere de blevne afrevne fra Ordene i en noget forskjellig Form, og betragtede som særegne Forholdsord, hos L[eem (1748)] findes kun to sådanne, nl. *a l a* , *hen på, til* [– –] og *a l d* , som L. oversætter *på*, [– –] (Rask 1832: 37–38.)

‘The next three forms [= *l*-cases] have undeniably occurred in the [Saami] language, which is obvious from *d a v v e l e*, *d a v v e l e s t*’, *d a v e l d*, but these endings are now apparently only used in certain old nouns that remain defective, as bare adpositions or adverbs, e.g., *b a ʒ j e* (*p a ʒ j e*), *that which is above*, occurs in these forms, altogether analogous to Finnish *p ä* (*p æ æ*), *head*, which is also used in the same manner in the same forms, thus:

	<i>Finnish.</i>	<i>Saami.</i>
to-f.	<i>p ä l l e</i> ,	<i>bagjele</i> , <i>op over, op på</i> ;
at-f.	<i>p ä l l æ</i> ,	<i>bagjelest</i> ’, <i>oven over, oven på</i> ;
from-f.	<i>p ä l d æ</i> ,	<i>bajeld</i> , <i>from above, down from</i> .

[– –] But as said, these endings only occur in certain individual words; in most cases they have split off from words in a somewhat separate form, and regarded as separate adpositions, in L[eem (1748)] only two such are found, namely *a l a*, *onto* [– –] and *a l d*, which L[eem] translates as *p å* [‘on’], [– –]’

Rask’s explanation was apparently adhered to by M. A. Castrén in his doctoral dissertation *De affinitate declinationum in lingua Fennica, Esthonica et Lapponica* (1839). Castrén accepted the equivalence of *l*-cases and Saami *al*-postpositions at least on a synchronic level, and seems to maintain that the morphemes are also etymologically cognate:

Casus, qui nominati sunt: *Allativus, Adessivus, Ablativus* e lingua Lapponica omnino fere evanuerunt, neque occurrunt, nisi in quibusdam adverbis et praepositionibus, ex. gr. *bagje -le* (Fenn. *p ä ä -lle*, Allat.), *baje -ld* (Fenn. *p ä ä -ltä*, Ablat.), *siskele, siskeld, davvele, davveld* e. s. p. Adessivus in illis quoque vocibus compensatur Infinitivo. Allativum nominum compensat postpositio *ala*, Adessivum interdum *aln* (*aldn*, Rask), saepissime vero *ald*, quae proprie post *Ablativum* ponitur^[5]. (Castrén 1839: 59.)

‘The cases which were mentioned: *allative, adessive, ablative* have altogether disappeared in the Saami language, and do not occur, except in certain kinds of adverbs and prepositions [= postpositions], for example *bagje -le* (Finn. *p ä ä -lle*, allat[ive]), *baje -ld* (Finn. *p ä ä -ltä*, ablat[ive]), *siskele, siskeld, davvele, davveld*, etc. The adessive in those expressions is compensated for by the infinitive [= partitive]. The allative of nouns is compensated by the postposition *ala*, the *adessive* sometimes with *aln* (*aldn*, Rask), most often however *ald*, which is properly placed after the ablative.^[5]’

Rask’s explanation was also supported by Stockfleth (1840: 10), but after this the idea seems to have sunk into oblivion. In his later publications Castrén compared the Finnic *l*-cases to the *l*-cases in Mari and Permic languages as well as to Khanty adverbs containing an element *-l-*,

^[5] E §. 28 apparet, illas postpositiones primitus fuisse casuum terminationes. [‘According to §. 28 it is clear that these postpositions originally were case endings’; such information cannot, however, be found in §. 28.]

leaving Rask's hypothesis entirely unmentioned (Castrén 1844: vi, 17–22; 1854: 112–117; 1858 [1849]: 28). And already before this Lönnrot (1841: 35–37) had proposed a different explanation, without making any reference to either Castrén (1839) or Rask: he equated the coaffix *-l-* with the Finnish word *liki* 'near; almost', and suggested that it had developed through attrition from this lexical root; the coaffix *-s-* in the endings of the *s*-cases he explained on the basis of the root *sisä-* 'inside'.

Other explanations based on relational nouns were also suggested in the latter half of the 19th century. Hunfalvy (1864: 301) connected the coaffix *-l-* with the Finnic relational noun *luo-*, cf. *luona* 'at (= in the vicinity of)', *luota* 'from (the vicinity of)', *luo* ~ *luokse* 'to (the vicinity of)'. On the other hand, Ahlqvist (1863: 26–27; 1877: 105–106) equated the *-l-* with the Finnic root *ala-* 'under-'. Ahlqvist's idea involved an interesting etymological misunderstanding, which brought it somehow close to Rask's explanation: he also maintained that there is a relationship between Finnic *l*-cases and the Saami *al*-postpositions, but he mistakenly thought that the Saami postpositions were cognate with Finnish *ala-* 'under'. It is true, the regular vowel correspondences between Finnish and Saami were only later worked out by Genetz (1896), but despite of this Sjögren (1828: 397) already had correctly analyzed Saami *al-* as the cognate of Finnish *ylä-* 'up, above-' instead. But Ahlqvist thought the Finnish forms *talolla* 'at the house' and *talolta* 'from the house' were historically equivalent to the North Saami expressions "*dalo ala*" (= *dálu ala*) and "*dalo alđ*" (= *dálu alde*); in reality, though, the latter two mean 'onto the house' and 'on the house', respectively. Later this mistaken equation of *l*-cases with Finnish *ala-* 'under' was also supported by Blomstedt (1869: 44).

The early comparisons made by Lönnrot, Hunfalvy and Ahlqvist have been recognized by later research, but on the other hand, Donner's (1879: 84–93) extensive discussion on the relationships of *l*-cases and adverbs with an *l*-element in the Finno-Ugric languages seems to have gone almost entirely unnoticed.⁶ This is interesting, as among the late 19th century scholars Donner can be characterized as the only one who based their hypotheses concerning the origin of the *l*-cases on a genuine comparative analysis. Donner's treatment differs from the earlier (and also most of the later) discussions on the *l*-cases in that he systematically tried to show cognate forms between distantly related Finno-Ugric languages: e.g. Finnish *tuolta*

⁶ As far as we are aware, the only scholar who has referred to Donner's views on *l*-cases is Häkkinen (1984: 7, 9), who herself maintains that the system of *l*-cases would have developed in the Finnic-Saami proto-language ('Early Proto-Finnic') already.

‘from there’ ~ Khanty <*tolta*> (? = Vakh Khanty *taltəy*) id., Finnish *edellä* ‘ahead’ ~ North Saami <*auddal*> (= *ovddal*) ‘towards (from the opposite direction)’ ~ Mari <*anzalna*> (= West Mari *anzâlnâ*) ‘ahead’, Finnish *veneellä* ‘at the boat; by boat, with a boat’ ~ Ter Saami <*vansel*> ‘by boat, with a boat’. According to present knowledge most of these etymological comparisons are erroneous, though.

Donner saw possible diachronic connections between the *l*-cases and several Finno-Ugric word-roots, such as the Finnic relational noun roots *ala-* ‘under’, *ete-* ‘front’, *ul-ko-* ‘outside’ and *üle-* ‘up, above’ and their cognates. In this connection Donner also mentions the local derivational suffix **-lA*. Donner’s wordings are, however, rather cautious and in fact difficult to interpret; he does not take a clear stance as to which of these elements would lie behind the formation of the *l*-cases, but instead states that any one of them could account for their origin:

Wenn wir jetzt die frage über den ursprung der *l*-kasmus vom finnischen standpunkte zu beantworten suchen, so haben wir kein criterium um sie entweder mit *ete*, vogul. *el*, magy. *el*, mit dem finnischen *luo* oder mit *ala* in verbindung zu setzen. Der bedeutung und der form nach können sie aus allen hergeleitet werden, [– –] (Donner 1879: 91.)

‘If we seek to answer the question of the origin of the *l*-cases from the point of view of Finnish, then we do not have a criterion for connecting them with either [Finnish] *ete-*, Mansi *el*, Hungarian *el* [‘front-’], or Finnish *luo* [‘at-’], or *ala* [‘under-’]. According to form and meaning they can be derived from all of them [– –]’

Die bedeutung, welche alle diese verschiedenen differenzirungen [= e.g., *ala*, *ete*, *ul-ko*, *üle*] mit einander verknüpft, ist aussenseite, fläche und hängt offenbar mit dem im finnischen und anderen sprachen vorkommenden ableitungssuffix *la* zusammen, welches lokalität, wohnplatz, aufenthaltsort bezeichnet und in nahem zusammenhang mit *luo* nahe steht. Aus dieser frühen periode der sprachbildung leite ich daher den ursprung der *l*-kasmus durch ein suffix, welches in naher beziehung zu allen den genannten steht. (Donner 1879: 92.)

‘The meaning that links all these varying differentiations [e.g., *ala* ‘under-’, *ete* ‘front-’, *ul-ko* ‘outside-’, *üle* ‘top, above-’] with each other is ‘exterior’, ‘surface’, and it is obviously connected with the derivational suffix *-lA* occurring in Finnish and other languages, which designates ‘locality’, ‘place of residence’, ‘whereabouts’ and which stands in a close connection with *luo* ‘near’. From this early period of language formation I derive the origin of the *l*-cases via a suffix, which stands in a close relationship with all the elements mentioned.’

After Donner a new phase began in the research history of the *l*-cases. According to a new view briefly presented by Budenz (1886: 464), the *l*-cases would have their origin exactly in the derivational suffix **-lA* that was already mentioned by Donner; the suffix is attested in such Finnish derivatives as, e.g., *appela* ‘father-in-law’s house’ (← *appi* ‘father-in-law’) and *pappila* ‘parsonage’ (← *pappi* ‘pastor’). Budenz presented functional arguments for his analysis in the form of two brief usage examples:

Jóformán egynek is vehető ezen *-l* képzővel, mellyel az említett casusok specialis töje alakúl, a finn «nomen loci»-képző *-la, -lä, pl. appela* domus soceri (*appe*), *pappila* domicilium sacerdotis (*pappi*), *miehelä* dom. virorum, mariti, mert eredeti jelentésül ráillik a «mellék (mellette és körüle valóság)»-féle, azt tekintve, hogy pl. *on miehelässä* magyarul így van: «férj n é l van», meg *mennä miehelähän* (Kalev. 23, 496) «férj h e z menni». (Budenz 1886: 464.)

‘In fact the derivational suffix *-l* that underlies the special stem of the cases mentioned [= *l*-cases] can be equated with the Finnish «nomen loci» derivative *-la*, e.g. *appela* ‘father-in-law’s house’ (*appe* [*appi* ‘father-in-law’]), *pappila* ‘parsonage’ (*pappi* [‘pastor’]), *miehelä* ‘husband’s house, marriage’ [*mies* : *miehe*- ‘man, husband’], because something like “supplementary; lateral” (“locating or existing beside and around”) suits as the original meaning, considering, e.g., *on miehelässä*: ‘férj**nél** van [man.ADE be.3SG]’ [‘is married’], *mennä miehelähän* (Kalevala 23, 496) ‘férj**hez** menni [man.ALL go.INF]’ [‘to get married’].’

Later Setälä (1890) commented on the origin of the *l*-cases, which he considered originating from the derivative **pääle-* with a suffix *-l(e)-* (cf. Finnish *pääl(l)ys* ‘cover(ing)’, *pääl(l)ikkö* ‘chief; head’, *pääl(l)inen* ‘cover; upper’); a similar idea had already been presented by Lönnrot (1841), who maintained that the element *-l(e)-* was eventually a truncation of the word *liki* ‘near; almost’. Setälä refers to Budenz’s explanation and considers it possible that the coaffix *-l-* is originally connected with the derivational suffix *-lA*; he rejects explanations based on postpositional stems. Even so, Setälä’s attitude is rather cautious:

Suomalaiset muodot *päällä* < **pääl-nä, pääl-tä* ovat siis katsottavat vain *l(e)*-johtoisen sanan sijamuodoiksi, ja koko ulkoinen paikallisryhmä on pidettävä tämmöisistä johdannaisista alkunsa saaneena, niin kuin LÖNNROT (Suomi 1841, 5 v., s. 36) ja BUDENZ (äskén main. p.) ovat olettaneet. Liian kauvas on menty, kun tahdotaan tätä *l*:ää panna *liki* sanan yhteyteen (LÖNNROT, Suomi 1841, 5 v. s. 37) tai johtaa sitä *ala* sanasta (AHLQVIST, Suomi II, 1, s. 27; BLOMSTEDT, Halotti Beszéd, s. 44); sitä vastoin **voisi sillä ajatella olevan yhteyttä paikallisen *la* päätteen kanssa** (vrt. QVIGSTAD [1881], Beitr. s. [1]36, BUDENZ, main. p.). (Setälä 1890: 409; emphasis added)

‘The Finnish forms *päällä* < **pääl-nä*, *pääl-tä* must thus be seen merely as case forms of a word with a derivational suffix *l(e)*, and the whole group of external local cases considered originating from such derivatives, as Lönnrot (Suomi 1841: 5, p. 36) and Budenz (op. cit.) have assumed. One has gone too far when one has wanted to connect this *l* with the word *liki* [‘near; almost’] (LÖNNROT, Suomi 1841: 5, p. 37) or to derive it from the word *ala* [‘under-’] (AHLQVIST, Suomi II: 1, p. 27; BLOMSTEDT, Halotti Beszéd, p. 44); instead, **one could think that it has some connection to the local suffix *la*** (cf. QVIGSTAD [1881], Beitr. p. [1]36, BUDENZ, op. cit.)’

Doubts apparently vanished soon, however. Szinnyi (1910: 73–75) presents the equation with the suffix *-la* laconically, as if it were unanimously accepted:

Im Ostseefinnischen, im Tscheremissischen und in den permischen Sprachen gibt es eine Suffixgruppe, deren gemeinsames Element ein *-l* ist. Dieses *-l* war ursprünglich ein Bildungssuffix und hat sich als solches im Finnischen (*-la*, *-lä*) und in den permischen Sprachen (*-la*) bis jetzt erhalten, z. B. finn. *pappila* ‚Pfarrhof, Pfarrhaus‘ (*pappi* ‚Priester‘); *appela* ‚Haus des Schwiegervaters‘ (*appe-*); *anoppila* ‚Haus der Schwiegermutter‘ (*anoppi*); *mieheliä-* ‚Haus des Mannes‘ (*miehe-*); [– –] (Szinnyi 1910: 73–74.)

‘In the Finnic, Mari and Permic languages there is a group of suffixes, whose common element is *-l*. This *-l* was originally a derivational suffix and has been preserved as such in Finnish (*-la*, *-lä*) and in the Permic languages (*-la*), e.g. Finnish *pappila* ‘parsonage’ (*pappi* ‘pastor’); *appela* ‘father-in-law’s house’ (*appe-* [‘father-in-law’]); *anoppila* ‘mother-in-law’s house’ (*anoppi* [‘mother-in-law’]); *mieheliä-* ‘husband’s house’ (*miehe-* [‘man, husband’]); [– –]’

Budenz’s explanation, which we will henceforth call the ‘*la*-theory’, seems to have become the commonly accepted view on the origin of the *l*-cases since then. Wichmann (1913–1918: 13–15) added another Finnic derivational type to the explanation, namely cases where the suffix *-la* is attached to a relational noun root: e.g., Finnish *etelä* ‘south’ ← *ete-* ‘front’ (the original meaning of *etelä* was probably ‘area in front of the house’ or the like, as the front sides of houses used to face south; SSA s.v. *etelä*). In such formations the derivational suffix would supposedly have become reanalyzed as a part of a case ending because nouns referring to a locality most often occur in local case forms. Hakulinen (1941: 90–91) mentions three types of Finnic derivatives in connection with the *la*-theory: 1) derivatives based on relational noun roots, e.g. *etelä* ‘south’; 2) oikonym derivatives, e.g. *appela* ‘father-in-law’s house’, *pappila* ‘parsonage’; 3) derivatives based on pronoun roots and the suffix combination **-ka-la-*, e.g. **tä-* ‘this’ → **täkälä* → *täkäläinen* ‘local to this place, inhabitant of this area’, *täällä* ‘here’ (< **täkäl-nä*), *täältä* ‘from here’ (< **täkäl-tä*).

Since the publication of Hakulinen (1941) these three types of derivatives have been routinely mentioned in connection with the *lA*-theory, and the explanation has become a piece of textbook knowledge that is constantly referred to but practically never subjected to critical discussion. The theory has been described as ‘the old and certainly correct view’ (“vanha ja varmasti oikea käsitys”; Uotila 1945: 334), “the traditional view” (Tauli 1956: 214), ‘the widespread, commonly accepted hypothesis’ (“распространенная, общепринятая гипотеза”; Serebrennikov 1962: 12; 1963: 47), and “the accepted opinion” (Anttila & Uotila 1984: 125), and since the 1930s it seems to have been accepted in nearly every publication in which the origin of the Finnic *l*-cases has been commented upon.⁷ But despite recurrent expressions of support, extremely little new evidence for the *lA*-theory has been presented after Hakulinen. The limited discussion on the issue has tended to concentrate on the interrelations of the Finnic *l*-cases (with primarily local functions) and the Mari and Permian *l*-cases (with primarily possessive functions), and they have usually been seen as results of convergent development (e.g., Ravila 1958: 13; Itkonen 1966: 265–266; Rédei 1996: 259–260).⁸

In spite of its almost universal acceptance the *lA*-theory did not remain completely without criticism. The studies by Serebrennikov (1962: 13; 1963: 47) are a notable exception to the *communis opinio*. He has paid attention to the fact that the semantics of the derivatives in **-lA* or **-l(V)* are difficult to equate with the functions of *l*-cases:

Отсюда может быть сделан только один вывод: элемент *-l* мог послужить показателем внешнеместных падежей только в том случае, если он сам обладал какой-то сходной семантикой. Насколько известно, словообразовательный суффикс в таких образованиях, как финск. *setälä* ‘дом дяди’ или коми-зыр. *бёрла* (*дор*), ‘задняя часть’ *водзла* (*дор*) ‘передняя часть’ такой семантикой не обладает. Поэтому, если рассуждать чисто логически, становится совершенно непонятно, каким образом этот элемент мог стать показателем внешнеместных падежей. (Serebrennikov 1962: 13; emphasis added.)

⁷ In addition to the scholars already mentioned, proponents of the *lA*-theory include at least Ravila (1935: 43–45, 1958: 13), Lehtisalo (1936: 148–150), Collinder (1952: 11; 1960: 291), Tauli (1952: 32–35), Pajusalu (1957a: 159–160), Oinas (1961: 8), Itkonen (1966: 265–266), Rätsep (1979: 51–53), Korhonen (1979: 9–10; 1981: 210–211, 231–232; 1991: 10), Laanest (1982: 165–167), Häkkinen (1983: 75–76; 1985: 86–87; 2002: 82–83), Baker (1985: 144), Leino (1990: 126), Tikka (1992: 40), Kulonen (1993: 18–19, 80–81), Huumo (1995: 64–65), Rédei (1996: 259–260), Alhoniemi (2001), Kracht (2005), and Huumo & Ojutkangas (2006: 17).

⁸ Bartens (2000: 82–83), however, does not share this opinion; her view will be discussed in more detail in Section 4.2 below.

‘Hence, only one conclusion can be drawn: the element *-l* could serve as a marker of the external local cases only in the case that the element itself possesses somehow similar semantics. As far as is known, the derivational suffix in such formations as Finnish *setälä* ‘uncle’s house’ or Komi-Zyryan *бӧрӧна* (*ðop*) ‘rear side’, *водзӧна* (*ðop*) ‘front side’ does not possess such semantics. **Therefore, if we think purely logically, it becomes entirely incomprehensible how this element could become a marker of the external local cases.**’

On the other hand, Serebrennikov speculates that a Finno-Permic “superessive” *-l* might lie behind the *l*-cases, but fails to present clear evidence for this hypothesis. In spite of this, though, his criticism quite clearly demonstrates the basic weakness of the *lA*-theory: it simply remains unexplained how the core functions of the Finnic (or the Mari-Permic) *l*-cases could be connected with the semantics of the derivational suffix *-lA*. The comparison seems to be primarily based on mere similarity of form, and the semantic relationship remains vague; the *l*-cases and the derivational suffix *-lA* show hardly any similarities of meaning beyond a loosely defined “local” function. Even so, Serebrennikov’s arguments have gained little attention. Apparently, only Baker (1985) has tried to counter this criticism:

Attempts to refute this theory [–] by claiming an inflectional or postpositional source for the *l* morpheme have foundered upon the formidable weight of derivational collateral provided by the contemporary languages, and the absence of independent comparative evidence to support the existence of an original desinence or adposition featuring the *l* element, which could reasonably have provided the base for some or all of the cases. (Baker 1985: 144.)

One must note that it remains quite unclear what the “formidable weight of derivational collateral” mentioned by Baker is supposed to be (cf. Baker 1985: 144–153). It is true, of course, that the Uralic languages possess a variety of words formed with some kind of “local” suffix or suffixes of the shape **-l(V)-* (and this is probably the case with many other language families, too). However, as pointed out by Serebrennikov already, the semantics of such formations do not show any clear correspondence to the functions of the *l*-cases – and, it seems, none of the supporters of the *lA*-theory have attempted to present a plausible account of how this functional gap between the forms could be bridged. Moreover, to Serebrennikov’s criticism one can add that the likelihood of chance resemblance is significantly increased by the fact that the compared element consists of a single phoneme (*l*), which is moreover a typologically common and unmarked sound, and in such a case particularly strong arguments are required for an etymological equation to be established.

Baker is quite right, though, in noting that so far there have not been any plausible attempts to equate the Finnic or the Mari-Permic *l*-cases with postpositions or other grammatical elements. In the next section we will show, however, that strong evidence for the postpositional origin of the *l*-cases can be found.

3. The origin of Finnic *l*-cases in light of the comparative method

The analysis of previous research has revealed that the *lA*-theory, despite of being generally accepted, has in fact never been substantiated with convincing semantic and functional arguments. This provides us a motive to approach the problem of the origin of the Finnic *l*-cases from a quite different perspective. In this study, the received methods of comparative linguistics form our methodological framework, and particular attention will be paid to the **functions of cases**. We will seek to first identify the historically primary semantic function of the Finnic *l*-cases, and then to compare the cases to those structures in other Uralic languages that exhibit the same semantic function. The benefit of such an approach lies in its potential to provide an answer to two distinct questions: it may both reveal potential but so far undetected cognate morphemes for the Finnic *l*-case suffixes and yield more information on the grammatical expressions of external locality prior to the development of the *l*-cases, in Pre-Proto-Finnic and even in Proto-Uralic. Indeed, it can be said that the weakness of the prevailing view ultimately stems from the lack of such a comparative approach: the essence of the *lA*-theory is formed by arguments supporting the equation of the coaffix *-l-* with the derivational suffix *-lA*, and it has never been expanded to include a detailed model of the development of expressions of external locality from Proto-Uralic to Proto-Finnic.

We will argue below that Rask (1832: 37–38) is the only scholar who has come close to the right solution of the problem. Of course, Rask's idea of original *l*-case endings developing into independent *al*-postpositions in Saami is erroneous in light of current knowledge of the etymology of these postpositions. Nevertheless, the basic assumption of a diachronic connection between Finnic *l*-cases and Saami *al*-postpositions is well motivated, as the two elements are not only similar in form but also show obvious functional affinities. Hence, we can modify Rask's explanation and postulate the hypothesis that *l*-case suffixes were grammaticalized from earlier postpositions that were retained in Saami. In what follows we seek to verify this hypothesis through a detailed comparative analysis. As the first step, the primary functions of the *l*-cases will be examined in more detail.

3.1. A new functionally based hypothesis

The functions of *l*-cases in Finnish have been explained in detail by, e.g., Alhoniemi (1979), Leino (1989; 1990) and Huumo (1995), and Estonian *l*-cases have been treated by Vainik (1995); for discussion on the functions of *l*-cases in Finnic languages in general see Pajusalu (1957b; 1958a; 1958b; 1960). The core function of Finnic *l*-cases is to express location in the proximity, the vicinity and especially **on the upper surface** of something. This has been aptly put by Alhoniemi:

l-sijaa käytettäessä puhutaan paikallissijaisten sanojen tarkoiteista tai tarkoitteiden pinnoista ikään kuin **kaksi ulottuvuutta omaavina lokaliteetteina**, kun taas näiden sanojen vastaavia sisäpaikallissijoja käytettäessä tarkoitteet nähdään kolmiulotteisina olioina, joille on ominaista mm. tilavuus ja materia. Näin siis *Varissuolla* ilmaisee kaksiulotteisen lokaliteetin, kun taas *Varissuossa*-ilmausta käytettäessä suo nähdään myös syvyyttä omaavana elementtinä. Vastaavalla tavalla *vuoteelle*, *matolle*, *kadulle*, *pöydälle* **ilmoittavat subjektin tai objektin tarkoitteen olinpaikaksi pelkän pinnan**, kun taas vastaavat sisäiset paikallissijat suhteuttavat tarkoitteet kolmiulotteiseen maailmaan. (Alhoniemi 1979: 94.)

‘When using an *l*-case, one speaks of the referents and their surfaces as if they were **localities involving two dimensions**, whereas when using a corresponding internal local case [*s*-case] the referents are seen as three-dimensional objects, which are characterized by, e.g., volume and material. Thus, *Varissuolla* [crow-bog-*ADE*] expresses a two-dimensional locality [‘on Crowbog’], whereas when the expression *Varissuossa* [crow-bog-*INE*] is used, the bog is perceived as an element that also possesses depth [‘in Crowbog’]. In the same way *vuoteelle* [bed-*ALL*], *matolle* [carpet-*ALL*], *kadulle* [street-*ALL*] and *pöydälle* [table-*ALL*] **express the location of the subject’s or object’s referent merely in terms of a surface**, whereas the corresponding internal local cases proportion the referents to the three-dimensional world.’

Such usage can be shown as primary on levels of both synchronic description and diachronic reconstruction. In addition to these strictly local functions, the main functions of *l*-cases include possessive use as well as instrumental use of the adessive case. However, only the local functions are fully shared by the Finnic languages. Possessive use is missing in Livonian (except for the Salaca dialect, whose *l*-cases may result from Estonian influence), and even across other Finnic languages possessive use is somewhat heterogeneous (Inaba 2001), which suggests its secondary origin (see 4.2. for further discussion). The instrumental use of the adessive, in turn, is characteristic of northern Finnic languages only. Laaksonen (2000) has compared the use of the adessive case in Finnish and Estonian, and found the correspondence to be highest in local functions, especially in the so-called ON-function (i.e., ‘location on the

upper surface’). Hence, it is not surprising that this function has also been considered diachronically primary, as summed up by Vainik, for instance:

l-kääänded kui ajalooliselt hilisemad peavad ju olema kasutusele võetud mingi markeeritud situatsiooni tarvis. Eeldades, et areng toimub ikka konkreetselt abstraktsele, tuleb arvata, et *l*-käänete kasutuselevõtu ajal oli selleks markeeritud olukorras tõenäoliselt **pidepunkti 2-mõõtmelisus** ja **aluse funktsioon**, kui kõige konkreetsem ja sätestatum VK-dega tähistatav suhe. (Vainik 1995: 146; emphasis in the original.)

‘The diachronically more recent *l*-cases must have been taken into use for the needs of some kind of marked situation. Presupposing that development always takes place from the concrete to the abstract, one can believe that at the time when *l*-cases were taken into use that marked situation was probably the **two-dimensional nature of the point of reference** and the **function of underlying surface**, as it is the most concrete and established relationship signified by the external local cases.’

Considering these findings, the study of the origin of the *l*-cases naturally must begin by examining what structures other Uralic languages use to express the same semantic function, i.e. ‘location on the upper surface’. In fact, we find it quite odd that this crucial question has almost never been addressed in previous studies on the subject.

The comparative method shows quite unambiguously that Proto-Uralic had a series of local postpositions formed from the relational noun root **ül(i)-* ‘place up or above’: **ül-nä* ‘on-LOC’, **ül-tä* ‘on-ABL’, and **üli-ŋ* ‘on-LAT’. These postpositions have retained their primary functions in Saami, Permic and Samoyed languages, and they are also reflected in a semantically slightly different Finnish series of adverbs and postpositions: *yllä* ‘above’, *yltä* ‘from above’, and *yлле* ‘to above’. As the reconstructed Proto-Uralic **ül*-postpositions bear a close resemblance to the endings of the *l*-cases and the two share the same semantic function (see Table 4), the hypothesis that *l*-cases have emerged through agglutination of these postpositions appears very promising indeed.

Proto-Uralic	Tundra Nenets ⁹	Komi	Udmurt	Inari Saami	North Saami	Lule Saami	Finnish
* <i>ül-nä</i>	<i>niña</i>	<i>viljn</i>	<i>viljn</i>	<i>alne</i>	(<i>alde</i>)	<i>nanna</i>	- <i>lla</i>
* <i>ül-tä</i>	<i>ñid</i> ^o	(<i>viljš</i>)	(<i>vilis</i>)	(<i>alne</i>)	<i>alde</i>	<i>nalta</i>	- <i>lta</i>
* <i>üli-ŋ</i>	<i>ñih</i>	<i>vilę</i>	<i>vile</i>	<i>oolâ</i>	<i>ala</i>	<i>nali</i>	- <i>lle</i>

Table 4. The reflexes of Proto-Uralic *ül*-postpositions in some Uralic languages. The forms put in parentheses are functionally equivalent but not morphologically cognate with the other items in the row.

Prototypical examples of the core local functions inherited from Proto-Uralic can be seen in the following Komi (1a–5a) and Tundra Nenets (6a–8a)¹⁰ sentences; the examples derive from Rédei’s (1962) and Mikola’s (1975) studies on postpositions in Komi and Nenets, respectively. As our translations of these sentences into North Saami (1b–8b) and Finnish (1c–8c) reveal, there is quite a clear correspondence between Finnish *l*-cases and the reflexes of the Uralic **ül*-postpositions in the core local functions:

⁹ The Tundra Nenets *ñi*- postpositions are indeed cognate with Saami (*n*)*al*- and Permic *vil*- postpositions, despite the phonological dissimilarity. The Proto-Samoyed forms of the postpositions are reconstructed as **i-nä* ‘on-LOC’, **i-tə* ‘on-ABL’ and **i-ŋ* ‘on-LAT’. The root **i*- has developed from earlier **ij*- < **ijj*- < **iil*- (< Proto-Uralic **iili*-). The nasal prothesis in Nenets (**i*- > **ji*- > *ñi*-) is a regular sound change. The etymology and phonological development of the Samoyed root **i*- is discussed by Janhunen (1981: 256). To his discussion we can add a possible explanation of the unexpected lack of the reflex of the lateral **l*. In Uralic **i*-stems the lateral was regularly palatalized and developed into the semivowel **j* in Samoyed, and consequently, the expected reflex of the Proto-Uralic root **iili*- is Proto-Samoyed **ij*-. Janhunen suggests that the irregular reduction of **ij*- to **i*- could have been caused by lack of stress due to frequent use of the root in postpositions. This is conceivable, but another explanation can also be proposed. The locative and ablative forms which also functioned as postpositions appear to have been formed from consonant stems (Proto-Uralic **ül-nä* and **ül-tä*, respectively), and it may well be that the loss of the lateral **l* is regular before the apical consonants **n* and **t*. There seems to be at least one parallel example of the development **lt* > **t* in Samoyed, namely Proto-Samoyed **kâtâ*- ‘kill’ < Proto-Uralic **kal-ta*- (a causative derived from the consonant stem of the verb **kali*- ‘die’), so the development of Proto-Uralic **ül-tä* to Proto-Samoyed **i-tə* can be interpreted as regular. No other examples of the Proto-Uralic cluster **ln* are known, but since such a cluster does not seem to occur in Samoyed, the regularity of the development **ül-nä* > **i-nä* seems at least a valid possibility. Thus, the anomalous root form **i*- (instead of **ij*-) could have been analogically generalized from the two forms reflecting Proto-Uralic consonant stem formations.

¹⁰ We are obliged to Tapani Salminen for converting the Tundra Nenets examples into phonological transcription.

- (1) a. *akań kujle Nast'a ki viļin*
 doll lie.3SG N. hand *viļin*
- b. ‘*dohkká lea Nastja gieða alde*’
 doll be.3SG N.GA hand.GA *alde*
- c. ‘*nukke on Nastjan kädellä*’
 doll be.3SG N.GEN hand.ADE
 ‘The doll is lying **on Nastja’s hand.**’ (Rédei 1962: 15)
- (2) a. *me tajes viļpev leććeda ju viļe*
 1SG this.ACC again take.1SG river *viļe*
- b. ‘*doalvvun dán ođđasit joga ala*’
 take.1SG this.GA again river.GA *ala*
- c. ‘*vien tämän uudestaan joelle*’
 take.1SG this.GEN again river.ALL
 ‘I will take this **on the river** again.’ (Rédei 1962: 18)
- (3) a. *bi viļin pert ešale*
 fire *viļin* cauldron hang.3SG
- b. ‘*dola alde heaŋgá ruitu*’
 fire.GA *alde* hang.3SG cauldron
- c. ‘*tulella riippuu pata*’
 fire.ADE hang.3SG cauldron
 ‘There is a cauldron hanging **over the fire.**’ (Rédei 1962: 14)
- (4) a. *tuj viļin cař međis mužiklš juašnj*
 road *viļin* tsar begin.PST.3SG man.ABL ask.INF
- b. ‘*geainnu alde cára álggii jearahallat ádjás*’
 road.GA *alde* tsar begin.PST.3SG ask.INF man.LOC
- c. ‘*tiellä tsaari kävi tiedustelemaan ukolta*’
 road.ADE tsar begin.PST.3SG ask.INF man.ABL
 ‘**On the road** the tsar began to ask the old man.’ (Rédei 1962: 16)
- (5) a. *a pižan viļin ni-nem abu*
 but table *viļin* no-one NEG.EX

- b. ‘*muhto beavddi alde ii leat mihkkege*’
 but table.GA *alde* NEG.3SG be.CNG nothing
- c. ‘*mutta pöydällä ei ole mitään*’
 but table.ADE NEG.3SG be.CNG nothing.PTV
 ‘But **on the table** there is nothing.’ (Rédei 1962: 15)
- (6) a. *num nīśaw° solotej° tol° ŋiña ŋam’owi°*
 n. father.1SG golden throne(.GEN) *ŋiña* sit-INFR
- b. ‘*áhččán Num čohkkái golletruvnnu alde*’
 father.1SG N. sit.PST.3SG golden.throne.GA *alde*
- c. ‘*isäni Num istui kultaisella valtaistuimella*’
 father.1SG N. sit.PST.3SG golden.ADE throne.ADE
 ‘My father Num sat **on a golden throne.**’¹¹ (Mikola 1975: 48)
- (7) a. *ŋar°wen° ŋiña mən° jad°əm°h*
 toe.GEN.1SG *niña* 1SG walk.1SG
- b. ‘*váccán juolgesuorpmaid alde*’
 walk.1SG toe.PL.GA *alde*
- c. ‘*kävelen varpaillani*’
 walk.1SG toe.PL.ADE.1SG
 ‘I walk **on my toes.**’ (Mikola 1975: 48)
- (8) a. *ser° ŋin təney°ñih*
 ice.GEN *ñih* step.1DU
- b. ‘*moai lāvkiime jieŋa ala*’
 1DU step.PST.1DU ice.GA *ala*
- c. ‘*astuimme jüälle*’
 step.PST.1PL ice.ALL
 ‘We stepped **on the ice.**’ (Mikola 1975: 46)

As the Finnic *l*-cases and Uralic **ül*-postpositions show both functionally and phonologically such a transparent correspondence, it is quite surprising that very little attention has been paid

¹¹ *Num* is the name of the Nenets supreme deity.

to this since Rask (1832). The fact has not gone completely unnoticed during the period of the *lA*-theory, however. Leino (1990) and Tikka (1992) suggest that the Finnish postpositional series *yllä, yltä, ylle* ‘above’ – and, peculiarly, also *alla, alta, alle* ‘below’ – could have had a semantic influence on the development of the *l*-cases. Even so, they consider derivatives based on the suffix *-lA* as the primary material source of the case forms:

Here, internal reconstruction leads to the conclusion that precisely those C-predicates that profile vertical spatial relations, i.e. the *alla* and *yllä* sets of p-positions, may have strongly influenced the development of the *l*-cases. [– –] The *alla* and *yllä* sets seem to have offered a motivation for the fact that the *l*-cases acquired the meaning ‘top surface contact’, and, thus, are closely associated with the vertical dimension. (Leino 1990: 138–139, Footnote 12.)

Koska nämä – kuten edellä on tullut esille – kuuluvat lähitienoita luotaaviin postpositioihin, ei ole lainkaan mahdotonta, että ne ovat olleet edesauttamassa ulkoisten paikallissijojen synnyssä. (Tikka 1992: 40.)
‘Because these [i.e., the *alla* and *yllä* sets] – as was noted earlier – belong to postpositions charting the immediate vicinity, it is not at all impossible that they have contributed to the birth of the external local cases.’

One should note that Leino and Tikka are, in fact, the only scholars subscribing to the *lA*-theory who have ever even tried to explain how the *l*-cases acquired the function of ‘location on the upper surface’. However, their explanation can be significantly simplified by assuming that the *yllä* set of postpositions is the concrete source of the *l*-case forms and not a mere semantic catalyst in their development.

3.2. *l*-cases compared against Saami *al*-postpositions

Even though the similarity between Finnic *l*-cases and Uralic **ül*-postpositions is striking on a superficial examination, more detailed proof is naturally needed in order to establish their historical connection. In this subsection an empirical test is performed: we will examine how and to what extent the use of the North Saami reflexes of Uralic **ül*-postpositions corresponds to the use of Finnic *l*-cases. As seen in Table 4 (see Section 3.1 above), North Saami has two postpositions inherited from the Uralic **ül*-set, namely a directional postposition *ala* ‘onto’ and the postposition *alde* which has both a locative function (‘on’) and

a separative function ('off, from').¹² Hence, our hypothesis predicts that the functions of North Saami *ala* will show a systematic resemblance to those of the Finnish allative case, and the functions of *alde* to those of the adessive and ablative cases.

In order to test the hypothesis, we have made use of a North Saami text corpus consisting of 12 works of fiction, four non-fiction titles, the translation of The New Testament published in 1998, and approximately 150 issues of the newspaper *Min Áigi* from the years 1995 and 1997 (see the references for more details). The size of the corpus is over a million words, and it includes 2031 tokens of the words *alde* and *ala* – 1963 instances of postpositions and 68 of adverbs.

Even though we have chosen North Saami as the sole representative of the Saami languages in our analysis, this is highly unlikely to cause any serious bias in the results, because the usage of cognate postpositions in other Saami languages does not seem to differ much from North Saami. For example, on the basis of our own acquired L2 intuition it is clear that Inari Saami *alne*, *oolâ* and Skolt Saami *â'lnn*, *ool* are used in a manner highly similar to North Saami *alde* and *ala*, and this intuitive judgment is confirmed by an examination of texts in these languages (e.g. IK; Sammallahti 2004; 2012). A more detailed study might, of course, still reveal some minor statistical differences.

3.2.1. A qualitative look at the material

Before a more detailed quantitative investigation it is worth while to take a brief qualitative look at the material through a few selected examples. In the examples below we have provided the Saami sentences with both Finnish and English translations in order to illustrate the functional correspondences between the Saami *al*-postpositions and various Finnish constructions. Unless otherwise mentioned, all translations are our own. A part of the observations on the use of North Saami *al*-postpositions have already been published Ylikoski (2006).

¹² The grammatical distinction between locative and separative forms has been lost in North Saami as well as in all Eastern Saami languages. Originally, the distinction was lost in the singular forms of local cases due to sound change: the Proto-Saami inessive singular ending (*-*snē*) and elative singular ending (*-*stē*) merged into *-s(t)*. Subsequently, the distinction was analogically obliterated also in the locative plural as well as in adverbs and postpositions (Korhonen 1981: 223–224; Sammallahti 1998: 66–67). Etymologically North Saami *alde* 'on; off' reflects the Uralic separative form **ül-tä*, whereas in Eastern Saami the corresponding locative form was generalized instead (cf. Inari Saami *alne*, Skolt Saami *â'lnn* 'on; off' < Uralic **ül-nä*).

In the material, the great majority of *al*-postpositions are used in a local function. In a typical case the postpositional phrase expresses location **on the upper surface** of a referent – e.g. an artifact (9), (10), a natural place (11), (12), a natural object (13), (14), or a part of the body (15), (16). In such cases, the most natural Finnish translation for the phrase often involves an *l*-case form, as in the following quite prototypical examples:¹³

- (9) *Nohkadeimmet filttiin ja ránuin duolji nalde*
 fall.asleep.PST.3PL blanket.PL.LOC and quilt.PL.LOC **hide.GA alde**
guolgabolstar oaivve vuolde.
 fur.pillow head.GA under
 ‘*Nukahdimme vilteissä ja raanuissa taljalla*
 fall.asleep.PST.3PL blanket.PL.INE and quilt.PL.INE **hide.ADE**
karvatyyny pään alla.’
 fur.pillow head.GEN under
 ‘We fell asleep [tucked] in blankets and quilts **on a hide**, with a fur pillow under our heads.’ (Blind 1992: 59)

- (10) *Na dan áhkus leai nieiddaš čohkkame áiddi alde.*
 well it.GA old.woman.LOC be.PST.3SG girl.DIM sit.PROG **fence.GA alde**
 ‘*No sillä eukolla oli pieni tyttö istumassa aidalla.*’
 well it.ADE old.woman.ADE be.PST.3SG little girl sit.PROG **fence.ADE**
 ‘Well, that old woman had a little girl sitting **on the fence.**’ (Turi 1982: 91)

- (11) *Mánát ieža goivo alcceseaset jieŋa ala skeittánsaji.*
 child.PL REFL.PL dig.PST.3PL REFL.ILL.3PL **ice.GA ala** skating.place.GA
 ‘*Lapset itse kaivoivat itselleen jäälle luistelupaikan.*’
 child.PL REFL dig.PST.3PL REFL.ALL.3PL **ice.ADE** skating.place.GEN
 ‘The children themselves dug a skating place for themselves **on the ice.**’ (MÁ 1995)

¹³ The examples also illustrate the variant forms in which these postpositions appear in North Saami: *alde* ~ *al* ~ *nalde* and *ala* ~ *nala*. The form *al* is merely an irregularly eroded form that is very common in spoken language, but less frequent in literary use. The origin of the secondary initial nasal in *nalde* and *nala* is explained in Section 3.6, and phonological erosion of these postpositions is discussed in more detail in Sections 3.6 and 3.7.

- (12) [– –] *su ovddal bođii bálga al okta boares áhkku.*
 3SG.GA against come.PST.3SG **path.GA alde** one old.ATTR woman
 ‘[– –]häntä vastaan tuli **polulla** yksi vanha eukko.’
 3SG.PTV against come.PST.3SG **path.ADE** one old woman
 ‘[– –] an old woman came towards him **on the path.**’ (Aikio & Aikio 1978a: 100; 1978b: 100)
- (13) [– –] *oainnán miedábealde muhtin geađggi alde goaskima čohkohaddamin.*
 see.1SG under.the.wind **some rock.GA alde** eagle.GA sit.PROG
 ‘[– –]näen kotkan istuksivan tuulen alla **jollain kivellä.**’
 see.1SG eagle.GEN sit.INF wind.GEN under **some.ADE rock.ADE**
 ‘[– –] I see an eagle sitting **on some rock** under the wind.’ (Sombi 1996: 8)
- (14) *Áhčči lebbii gártta sáddo ala [– –]*
 father spread.PST.3SG map.GA **sand.GA ala**
 ‘*Isä levitti kartan hiekalle [– –]*’
 father spread.PST.3SG map.GEN **sand.ALL**
 ‘Father spread out the map **on the sand** [– –]’ (Jansson 1990: 24; 1979: 24)
- (15) *De bajidii son su giedas mu oalggi ala.*
 then raise.PST.3SG 3SG 3SG.GA hand.GA.3SG **1SG.GA shoulder.GA ala**
 ‘[Sitten] hän nosti kätensä **olkapäälleni.**’
 [then] 3SG raise.PST.3SG hand.GEN.3SG **shoulder.ALL.1SG**
 ‘Then he raised his hand **on my shoulder.**’ (Hætta & Bær 1982: 113; 1993: 153)
- (16) *Geasset sáhtii bidjat cuoppolastta hávi nala.*
 in.summer be.possible.PST.3SG put.INF pondweed.GA **wound.GA ala**
 ‘*Kesällä saattoi laittaa uistinvidan lehden haavalle.*’
 summer.ADE be.possible.PST.3SG put.INF pondweed.GEN leaf.GEN **wound.ALL**
 ‘In summer one could put a pondweed leaf **on a wound** (in order to disinfect it).’ (Blind 1992: 83)

Occasionally the actual function of the *al*-phrase is not really local, but involves a transparent metaphor based on a local meaning, as in the following cases:

- (17) [– –] *de báhcá buot bargu dáppe Rainer hárduid ala.*
 then remain.3SG all work here **Rainer.GA shoulder.PL.GA ala**
 ‘[– –]sitten jää kaikki työ täällä **Rainerin harteille.**’
 then remain.3SG all work here **Rainer.GEN shoulder.PL.ALL**
 ‘[– –] then all work here is left as Rainer’s responsibility (“**on Rainer’s shoulders**”).’
 (MÁ 1995)

- (18) *Dan vuodu ala mii sáhttit hukset boahtteáiggi.*
it.GA foundation.GA ala 1PL can.1PL build.INF future.GA
 ‘*Sille pohjalle voimme rakentaa tulevaisuutta.*’
it.ALL foundation.ALL can.1PL build.INF future.PTV
 ‘**On that foundation** we can build the future.’ (MÁ 1995)

Some cases involve a referent which lacks a concrete upper surface or top (19). In the case of body parts, the phrase most often expresses posture (20); similar use occasionally occurs with inanimate objects as well (21). Even in such cases the phrase can often be translated with an *l*-case form:

- (19) *Na de olmmái válddii ja suddadii laju dola nalde [– –]*
 well then man take.PST.3SG and melt.PST.3SG lead.GA **fire.GA alde**
 ‘*No sitten mies otti ja sulatti lyijyä tulella [– –]*’
 well then man take.PST.3SG and melt.PST.3SG lead.PTV **fire.ADE**
 ‘Then the man took and melted lead **on the fire** [– –]’ (Blind 1992: 120)

- (20) *Báhppa Stockfleth maida čohkka muohttat alde čippiid alde [– –]*
 pastor Stockfleth also sit.3SG **snow.GA alde knee.PL.GA alde**
 ‘*Pappi Stockfleth myös istuu lumella polvillaan [– –]*’¹⁴
 pastor Stockfleth also sit.3SG **snow.ADE knee.PL.ADE.3SG**
 ‘Pastor Stockfleth also sits **on the snow on his knees** [– –]’ (Hætta & Bær 1982: 53)

¹⁴ The passage in the published Finnish translation is not an exact equivalent: *Pappi Stockfleth polvisteli muiden tavoin lumella [– –]* ‘Father Stockfleth sat like the others kneeling on the snow’ (Hætta & Bær 1993: 88–89).

- (21) [– –] *biila lea fierran moddii birra ovdal bisánii fas*
 car be.3SG roll.PST.PTCP a.few.times around before stop.PST.3SG again
juvllaid nala.
wheel.PL.GA ala
 ‘[– –] *auto on pyörähtänyt muutaman kerran ympäri ennen kuin*
 car be.3SG roll.PST.PTCP a.few.GEN occasion.GEN around before than
pysähtyi taas renkailleen.’
 stop.PST.3SG again **wheel.PL.ALL.3SG**
 ‘[– –] the car has rolled over a few times before stopping **on its wheels** again.’ (MÁ
 1995)

Another type of semantic extension is the occasional use of Saami *al*-postpositions to designate a location not ‘on (the upper surface)’, but merely next to or in the immediate vicinity of the referent. These kinds of examples resemble the use of Finnish *l*-cases in the AT-function (e.g., Finnish *talolla* ‘at the house’). Hence, they are often naturally translated with *l*-case forms, as in the case of (22–24) below. One can compare (22) and (23) against (4) and (2) in Section 3.1, in which the phrases *geainnu alde* ‘on the road’ and *joga ala* ‘onto the river’ appear in a more prototypical ON-function.

- (22) *Bargostohpu leai min skuvlageainnu nalde.*
 workshop be.PST.3SG **1PL.GA school.way.GA alde**
 ‘*Työpaja oli meidän koulutiellämme.*’
 workshop be.PST.3SG **1PL.GEN school.way.ADE.1PL**
 ‘The workshop was **along our way to school.**’ (Blind 1992: 71)
- (23) *Dainna mielain son vulggii Giru gillái Avviljoga ala [– –]*
 it.COM mind.COM 3SG leave.PST.3SG Giru.GA village.ILL **Avviljohka.GA ala**
 ‘*Sillä mielellä hän lähti Kyrön kylään Ivalojoelle [– –]*’
 it.ADE mind.ADE 3SG leave.PST.3SG Kyrö.GEN village.ILL **Ivalojoki.ALL**
 ‘In that mood he left for the village of Giru **along the river Avviljohka** [– –]’ (Castrén
 2005: 27)

- (24) *Dan botta skihpárat ledje joavdan unna*
 it.GA while.GA companion.PL be.PST.3PL arrive.PST.PTCP **small.ATTR**
ádjagačča ala [– –]
brook.DIM.GA ala
 ‘Sillä välin kumppanit olivat saapuneet *pienelle purolle* [– –]’
 it.ADE while companion.PL be.PST.3PL arrive.PST.PTCP.PL **small.ALL brook.ALL**
 ‘Meanwhile the companions had come **upon a small brook** [– –]’ (Castrén 2005: 22)

As (9)–(24) illustrate, the correspondences between Saami *al*-postpositions and Finnish *l*-cases are rather pervasive in local functions. Even so, there are of course also many instances where the Saami postpositional phrases cannot, despite of having a local function, be translated with a Finnish *l*-case form. As pointed out by Lauranto (1994: 49), Finnish *l*-cases are usually used in local functions only if the referent of the noun has **a prominent upper surface**, either in terms of the referent’s form or its function. The local semantics of Saami *al*-postpositions are stronger, and hence their use is not as strictly limited by the nature of the referent of the complement of the postposition. For instance, the following examples involve referents that either have an upper surface that is not central to the function of the referent (a car [25]) or lack a coherent upper surface altogether (gas bottles [26]). In such cases it is more natural or even necessary to translate the Saami *al*-postposition with a Finnish postposition of the series *pää-llä* ‘on-ADE’, *pää-ltä* ‘on-ABL’, *pää-lle* ‘on-ALL’:¹⁵

- (25) *Fáhkka almmái njuikii eret biilla alde [– –]*
 suddenly man jump.PST.3SG away **car.GA alde**
 ‘Yhtäkkiä mies hyppäsi *auton päältä* [– –]’
 suddenly man jump.PST.3SG **car.GEN päältä**
 ‘Suddenly the man jumped **off the car** [– –]’ (Marastat 1990: 28)

- (26) *Son bajidii guoros gássa, mii lei gássabohtaliid alde*
 3SG raise.PST.3SG empty.ATTR box.GA which be.PST.3SG **gas.bottle.PL.GA alde**
 ‘Hän nosti tyhjää laatikkoa, joka oli *kaasupullojen*
 3SG raise.PST.3SG empty.PTV box.PTV which be.PST.3SG **gas.bottle.PL.GEN**
päällä [– –]’

¹⁵ This historical background of this postpositional series is discussed in more detail in Section 5.

päällä

‘He raised an empty box that was [placed] **on the gas bottles** [– –]’ (Jansson 1990: 195; 1979: 175)

In the material, one can also observe other types of limitations to the use of *l*-cases in a local function. In *al*-phrases that involve animate referents the translation to a Finnish *l*-case form is impossible not only because of the lack of a coherent ‘upper surface’, but also due to the fact that the *l*-cases have possessive and dative functions associated with animate referents. Consider the following example:

- (27) *Nisu, gii gohčoduvvo bolesiin boares oahpisin, njoarai*
 woman who call.PASS.3SG police.PL.LOC old.ATTR acquaintance.ESS pour.PST.3SG
godena olbmá nala, ja cahkkehii su.
 moonshine.GA **man.GA ala** and ignite.PST.3SG 3SG.GA
 ‘Nainen, jota poliisit kutsuvat vanhaksi tutuksi,
 woman which.PTV police.PL call.3PL old.TRANSL acquaintance.TRANSL
kaatoi pontikkaa miehen päälle ja sytytti hänet.’
 pour.PST.3SG moonshine.PTV **man.GEN päälle** and ignite.PST.3SG 3SG.ACC
 ‘A woman, who is called an old acquaintance by the police, poured moonshine **on the man** and set him on fire.’ (MÁ 1995)

In (27), there is simply no possibility of translating Saami *ala* with the Finnish allative case, as in connection with a human referent the case has a dative function; it is naturally something altogether different to ‘pour the man some moonshine’ (*kaataa pontikkaa miehelle*) than to ‘pour moonshine on the man’ (*kaataa pontikkaa miehen päälle*). But it should be noted that such restrictions to the local use of *l*-cases have become necessary only when the possessive functions of these cases have first started to develop in Finnic. As already mentioned in 3.1, the possessive use must be interpreted as secondary; its development will be discussed in more detail in Section 4.2 below.

In addition to the core local functions, *al*-postpositions are also encountered in various kinds of other uses. In particular, *alde* and *ala* often occur as postpositions governed by a variety of verbs. These kinds of cases make up over one tenth of the sentences in the research material, and their Finnish equivalents are quite heterogeneous. In the following examples, the verbs *doarrut* ‘to fight’ (28), *suhttat* ‘to get mad’ (29), and *jurddahit* ‘to think’ (30)

govern either an *alde* phrase or an *ala* phrase; such usage is analyzed in more detail by Ylikoski (2006):

(28) *Ahte vel moaluid alde nai dárbbášit doarrut, dákkár rikkis,*
 that still **crumb.PL.GA alde** also need.3PL fight.INF this.kind.of rich
stuorra gávpogis.

large.ATTR city.LOC

‘*Että heidän vielä muruista=kin tarvitsee tapella,*

COMP 3PL.GEN still **crumb.PL.ELA=also** need.3SG fight.INF

tällaisessa rikkaassa, suuressa kaupungissa.’

this.kind.of.INE rich.INE big.INE city.INE

‘[Imagine] that they must fight even **for crumbs** in such a rich and large city.’ (Vars 1990: 46)

(29) [– –] *Ovllá-viellja meinnii duođas suhttat mu ala,*
 Ovllá.brother be.about.to.PST.3SG seriously get.mad.INF **1SG.GA ala**
vaikko mun in dadjan maidige. (Vest 1988: 28)

even.though 1SG NEG.1SG say.CNG.PST nothing.ACC

‘[– –] *Oula-veli meinasi tosissaan suuttua minulle,*

Oula.brother be.about.to.PST.3SG seriously get.mad.INF **1SG.ALL**

vaikka minä en sanonut mitään.’

even.though 1SG NEG.1SG say.CNG.PST nothing.PTV

‘Brother Ovllá almost got mad **at me** for real, even though I didn’t say anything.’ (Vest 1990: 28)

(30) *In mon gal jurddahan ruđa nala, mon ledjen dalle ain nu*
 NEG.1SG 1SG really think.CNG.PST **money.GA ala** 1SG be.PST.1SG then still so
mánas.

childish

‘*En minä kyllä ajatellut rahaa, olin silloin vielä niin*

NEG.1SG 1SG really think.CNG.PST money.PTV be.PST.1SG then still so

lapsellinen.’¹⁶

¹⁶ But notice that in Estonian the verb *mõtelda* ‘to think’ can govern the allative case:

childish

‘I didn’t really think **about money**, I was still so childish back then.’ (Blind 1992: 23)

Finally, it can be noted that *al*-postpositions occur in a number of fixed phrases and idioms. Even such cases can occasionally be translated with a Finnish *l*-case form, such as North Saami *gozuid alde* ‘awake’ = Finnish *hereillä*. The underlying nominative forms **gohcu* and **here* do not occur as independent nouns in the languages (but cf. North Saami *gohcit* ‘to be awake’ and Finnish *herätä* ‘to awaken’):

- (31) *Lean gozuid alde, muhto buot orru dego niegus*
 be.1SG STEM.PL.GA *alde* but all seem.3SG like dream.LOC
dáhpáhuvvame.
 happen.PROG
 ‘*Olen hereillä, muttakaikki tuntuu tapahtuvan kuin unessa.*’
 be.1SG STEM.PL.ADE but all feel.3SG happen.INF like dream.INE
 ‘I am **awake**, but everything seems to be happening as if in a dream.’ (MÁ 1995)

It may be added that Finnic and Saami appear to have been close neighbors ever since their divergence from a common protolanguage, and as a result of millennia-long contacts, Finnic and Saami morphosyntaxes greatly resemble each other and the closest neighbors such as Finnish and North Saami are rather isomorphic indeed. One could hypothesize that this would also have resulted in a gradual convergence of the functions of the Finnic *l*-cases and the Saami postpositions. However, as will be shown below, even the most remote members of the two branches show significant similarities, and this in turn is not fundamentally different from the similarities with other, geographically more remote descendants of the Uralic postpositions.

-
- (i) *Mina küll ei mõtelnud rahale, olin siis veel nii lapselik.*
 1SG really NEG think.CNG.PST **money**.ALL be.PST.1SG then still so childish

3.2.2. Quantitative analysis

From a qualitative perspective there is a clear correspondence between Saami *al*-postpositions and Finnic *l*-cases, especially in core local functions, as showed in the previous subsection. Even more conclusive proof of their historical connection can be provided through a quantitative analysis of the material. According to our calculations, as many as **1272–1321** out of the 1963 *al*-postpositions in our research material can be naturally translated into Finnish with an *l*-case form; this amounts to about **two thirds of all tokens (65–67%)**.

In order to see the frequency of various functions of the *al*-postpositions, and to study the correspondences with Finnish *l*-cases for each group of functions separately, we have divided the tokens into four broad semantic groups plus a residual group:

- a) Local expressions, including metaphoric use of local expressions (see Examples 9–19, 22–27).
- b) Expressions of posture (see Examples 20–21).
- c) Postpositions governed by various verbs and nouns (see Examples 28–30).
- d) Fixed phrases and idioms (see Example 31). — Some other examples in the material include *mátkki alde* [trip.GA on] ‘while travelling, on the journey’, *jurdagiid alde* [thought.PL.GA on] ‘lost in one’s thoughts’, *olles mielaid alde* [full mind.PL.GA on] ‘in one’s right mind’, *beassat niskki ala* [get.INF neck.GA on] ‘to get the upper hand’. In this group we have also included ‘fixed phrases’ where the postpositional phrase has some kind of idiomatic reading, even though the complement of the postposition may freely vary: examples include *X:a ala* ‘in addition to X’ (e.g., *buot dan ala* ‘in addition to all that’), *X:a ala* ‘after completing X’ (e.g., *dien beaivása ala* ‘after completing that day’s trip’).
- e) Unclassified tokens. — This residual group includes *al*-phrases with some kind of unusual reading which nevertheless does not seem to be an established idiom or fixed construction, and also a couple of cases where the meaning of the phrase simply remains unclear.

The number of tokens in each category, as well as their correspondences to Finnish *l*-cases, is shown in Table 5 below. As the figures in the table reveal, the great majority of tokens involve expressions of locality (1562/1962 = 80%), and the correspondence in this core group

is very strong: as many as 71–74% of the tokens can be translated with *l*-case forms in Finnish.

	<i>alde, ala</i> ~ <i>l</i> -case	<i>alde, ala</i> ~ other
a) locality	1108–1149 (71–74%)	414–455 (26–29%)
b) posture	68 (94%)	4 (6%)
c) government	37–42 (23–26%)	118–123 (74–77%)
d) fixed phrase, idiom	43–44 (41–42%)	62–63 (58–59%)
e) unclassified	16–18 (28–31%)	40–42 (69–72%)
Total	1272–1321 (65–67%)	638–687 (33–35%)

Table 5. The correspondences between North Saami *al*-postpositions and Finnish *l*-cases in different functional domains.

This kind of calculation naturally involves a certain degree of subjectivity. Indeed, the differences between minimum and maximum percentages result from borderline cases where it is hard to be sure whether the Finnish translation involving an *l*-case form is the most natural one, or where our native speaker’s judgments of naturalness differ. However, as such unclear cases only amount to a few per cent of the material, they do not have a significant implication on the overall result – in the local functions, the correspondence between Saami *al*-postpositions and Finnish *l*-cases is pervasive.

Moreover, it is possible to conduct a more objective experiment by comparing texts that have been translated from North Saami to Finnish or vice versa. Our material includes four such translated works of fiction. From these we have also checked how often the North Saami *al*-phrase matches an *l*-case form in the Finnish text, ignoring our own intuition about possible translations altogether; the results can be seen in Table 4.

Book	<i>l</i> -cases / <i>al</i> -postpositions
Tove Jansson: <i>Áhčči ja mearra</i> (← <i>Muumipappa ja meri</i>) ¹⁷	144 / 170 (= 84.7%)
Timo K. Mukka: <i>Sipirjá</i> (← <i>Laulu Sipirjan lapsista</i>)	77 / 110 (= 70%)
Jovvna-Ánde Vest: <i>Čáhcegáddái nohká boazobálggis</i> (→ <i>Poropolku sammaloituu</i>)	48 / 76 (= 63.2%)
Annukka & Samuli Aikio: <i>Girdinoaidi bárdni</i> (→ <i>Lentonoidan poika</i>)	27 / 47 (= 57.4%)
Total	296 / 403 (= 73.4%)

Table 4. The correspondence rates between North Saami *al*-postpositions and Finnish *l*-cases in translated texts.

As shown in table 4, the objective test verifies our results: in translated works, nearly **three quarters** of the North Saami *al*-postpositions correspond to an *l*-case form in the Finnish text. And one can add that this figure is still slightly lowered by discrepancies between the Saami and Finnish texts. In some cases the Finnish text does not contain an *l*-case – even though such a translation would be perfectly possible – because the original text and the translation do not exactly correspond to each other. Compare the Saami example (32a) against its equivalent in the Finnish translation (32b):

- (32) a. [– –] *dat lea noidon mu oappa gollegoalsin*
 it be.3SG conjure.PST.PTCP 1SG.GA sister.GA golden.merganser.ESS
guhte ferte ávi al vuodjat.
 which must.3SG **open.sea.GA alde** swim.INF
 ‘[– –] she has conjured my sister into a golden merganser that must swim **on the open sea.**’ (Aikio & Aikio 1978a: 119)
- b. [– –] *hän on noitunut sisareni kultaiseksi*
 3SG be.3SG conjure.PST.PTCP sister.GEN.1SG golden.TRANSL
koskeloksi niin että hänen täytyy nyt uida meren
 merganser.TRANSL so COMP 3SG.GEN must.3SG now swim.INF **sea.GEN**
sylissä.
 lap.INE

¹⁷ This book seems to have been, at least for the most part, translated from the Finnish version *Muumipappa ja meri* rather than from the Swedish original *Pappan och havet*.

‘[– –] she has conjured my sister into a golden merganser so that she must now swim **on the bosom of the ocean.**’ (Aikio & Aikio 1978b: 119) (cf. *uida ulapalla* [swim.INF **open.sea.ADE**] ‘swim on the open sea’)

It is easy to compare the use of Finnish *l*-cases to North Saami in this manner, as there are plenty of texts that have been translated from one language to the other. It is more difficult to apply such a method to other Finnic and Saami languages, but a comparison of North and Lule Saami translations of the New Testament to the Finnish, Olonetsian, Estonian and Livonian translations yields a rough picture of the correspondences. In addition, this makes it possible to further match the material against the geographically and historically distantly related Permic language Udmurt.

As shown in Table 6 below, the results of such a comparison are somewhat different. A major cause of the lower correspondence rates is the fact that source text of the translations of the New Testament has usually been the Greek original, in addition to which a variety of different translations to other majority languages have been used in each translation process. On the other hand, each translation may have its own theological bases, so that the outcomes are often not, and have not even meant to be, literal translations of the original text(s).

Language	Bible translation	Matches	% of matches
Lule Saami	Ádđ Testamentta (2000)	124	48%
Udmurt	Быль Сйзён (1997)	174	67%
Finnish	Uusi testamentti (1992)	74	29%
Olonetsian	Uuzi Sana (2003)	137	53%
Estonian	Uus Testament (1997)	72	28%
Livonian	Ūž Testament (1942)	0	0%

Table 6. The 258 tokens of North Saami *al*-postpositions in *Odđa Testamentta* (the New Testament; 1998) matched with Lule Saami *nal*-postpositions (*nanna*, *nalta*, *nali*), Udmurt *vjl*-postpositions (*vjljn*, *vjljś*, *vjle*, *vjlti*, *vjljśen*), and Finnic *l*-cases.

At first glance the figures in Table 6 seem very odd. It is unexpected that even between North Saami and Lule Saami the correspondence rate is as low as 48%, as these languages are so closely related that they are even to a fair extent mutually intelligible. Even more peculiarly, the correspondence rate between North Saami and Olonetsian is higher (53%) than that between North Saami and Lule Saami. The correspondence rates with Finnish and Estonian

are much lower, which is again surprising as Olonetsian is very closely related to Finnish. In Livonian no matches can be found, but this is simply due to the fact that *l*-cases do not even exist in this language as productive members of the case system. Quite strangely, the highest correspondence rate occurs between the two most distantly related languages: the match rate of North Saami *al*-postpositions and their Udmurt cognates *vil*-postpositions is as high as 67%, despite that these two languages are both geographically and taxonomically very far from each other.

One should note, though, that it is not the high rate of correspondence to Olonetsian and to Udmurt which is surprising; it was already shown that there is a very high rate of correspondence between North Saami *al*-postpositions and Finnish *l*-cases in local functions, and comparing North Saami to Olonetsian, one only expects the same result. The high rate of correspondence between North Saami and Udmurt also matches well with the previous observation that the basic local functions of these postpositions were inherited from Proto-Uralic already (see 3.1). Comparing these three translations to each other, one finds as many as 99 cases out of 258 (38%) where the North Saami *al*-postposition is matched by **both** an Olonetsian *l*-case **and** an Udmurt *vil*-postposition – in spite of three completely separate and independent translation processes. A great majority of these matches involve cases with a concrete local function, especially in the sense of ‘location on the upper surface’. This result provides a good statistic confirmation for the Uralic origin of this function, and reinforces the view that the Finnic *l*-cases are grammaticalized reflexes of the Uralic **ül*-postpositions.

Compared to Olonetsian, the significantly lower percentages of matches with Finnish and Estonian result of certain idiosyncratic features of biblical language. The dramatic difference results from the fact that the phrase *eatnama alde* [earth.GA *alde*] ‘on earth’ has an abnormally high frequency in the New Testament: 49 cases out of 258, i.e., as many as 19% of all *al*-postpositional phrases. As a correspondent of this phrase one finds an *l*-case form in Olonetsian (*mual*), but a postpositional phrase in Finnish (*maan päällä*) and Estonian (*maa peal*). This is because the corresponding *l*-case forms of *maa* ‘earth, land’ have become lexicalized into a different meaning: Finnish *maalla*, Estonian *maal* ‘in countryside’. Incidentally, the high frequency of *eatnama alde* is also responsible for a significant lowering of the match rate between North Saami and Lule Saami, as the Lule Saami translation employs the local case form *ednamin* [earth.INE] instead. Compare the following example:

(Luke 2:14)

(33) North Saami (OT):

- a. *Gudni lehkos Ipmilii allagasas ja ráfi eatnama alde*
 glory be.IMP.3SG God.ILL place.high.up.LOC and peace earth.GA *alde*
olbmuide geaid Ipmil árpmiha!
 person.PL.ILL who.PL.GA God show.mercy.3SG

Lule Saami (ÅT):

- b. *Guddne Jubmelij allagisán ja ráfe suv gierugijda*
 glory God.ILL place.high.up.INE and peace 3SG.GEN loved.one.PL.ILL
ednamin.
 earth.INE

Udmurt (VS):

- c. «*Dan viliš Inmarli, muzjem vilin kañillik, ad'amosli žeč erik*».
 glory high God.DAT earth *vilin* peace person.PL.DAT good will

Finnish (Raamattu):

- d. *Jumalan on kunnia korkeuksissa, maan päällä rauha*
 God.GEN be.3SG glory place.high.up.PL.INE earth.GEN *päällä* peace
ihmisillä, joita hän rakastaa.
 person.PL.ADE who.PL.PTV 3SG love.3SG

Olonetsian (US):

- e. *Kunnivo Jumalale ülimäzes taivahas, i mual rauhus*
 glory God.ALL high.SUP.INE heaven.INE and earth.ADE peace
rahvahile, kudamii Häi suvaiččou.
 people(.PL).ALL who.PL.PTV 3SG love.3SG

Estonian (Piibel):

- f. „*Au olgu Jumalale kõrges ja maa peal rahu,*
 glory be.IMP.3SG God.ALL place.high.up.INE and earth.GEN *peal* peace
inimestest hea meel!”
 person.PL.ELA good mood

Livonian (UT):

- g. *Ouv volgõ yližis Jumalõn, ja mā pāl arm,*
 glory be.IMP.3SG place.high.up.INE God.DAT and earth.GEN *pāl* peace
rovvõn jōva mēļ.
 people.DAT good mood

‘Glory to God in the highest, and **on earth** peace to men on whom his favor rests.’

If one removes the 49 tokens of *eatnama alde* from the material, the match rates for Finnish, Karelian and Olonetsian become more uniform. Still, it is noteworthy that the percentages are rather low compared to the translations of works of fiction listed in Table 5. In addition to the general differences between biblical translation procedures this is also caused by another peculiarity of biblical language, namely the high frequency of *al*-postpositions that have a complement with a human referent. Outside the Bible these kinds of phrases are at all not common in North Saami, and the few that occur in the rest of our material pertain to more or less unusual states of affairs: cf. *njoarai godena olbmá nala* ‘poured moonshine on the man’ in (29). However, in the New Testament such cases are very common: *Mun bijan Vuoigŋan su ala* [– –] ‘I will put my Spirit **on him**’ (Matthew 12:18), [– –] *seavdnjat gahčai noidošeaddji ala* [– –] ‘darkness came over him [“**over the sorcerer**”]’ (Acts 13:11), [– –] *bohkáid ja vuovssáid varra ja guigguid gunat mat riškkuhuvvojit buhtismeahttumiid ala* [– –] ‘The blood of goats and bulls and the ashes of a heifer sprinkled **on those who are ceremonially unclean**’ (Hebrews 9:13), [– –] *almmis gahčče olbmuid ala stuora čuođibuddásaš čuorbmasat* ‘from the sky huge hailstones of about a hundred pounds each fell **upon men**’ (Revelation 16:21). Due to the fact that *l*-case forms of nouns with human referents have possessive and dative functions, these kinds of Saami *al*-phrases can naturally not be translated with them (see the discussion on Example (29) above). There are as many as 53 *al*-phrases of this kind in the New Testament, i.e. 20.5% of all tokens. This can be considered highly atypical use of North Saami, because the rest of our material includes less than a dozen comparable examples.

In total, the tokens involving either the phrase *eatnama alde* ‘on earth’ or a noun with a human referent cover as many as 102 cases out of 258 in the New Testament (i.e., 39.5%). If these tokens which strongly deviate from normal use of North Saami *al*-postpositions are left out of the count, the remaining tokens correspond relatively well to the use of Finnic *l*-cases. For instance, the correspondence rate between Finnish and North Saami rises up to 47% (74 cases out of 156). Thus, one can say that despite a few peculiarities resulting from the idiosyncratic properties of biblical language, the material from the New Testament verifies the close correspondence between *al*-postpositions (and Udmurt *vil*-postpositions) and the Finnic *l*-cases, at least as regards Finnish, Olonetsian and Estonian.

3.3. Comparing *l*-cases to their Permic and Samoyed equivalents

As the Saami *al*-postpositions and Finnic *l*-cases have been shown to correspond well in both form and function, we already have strong evidence for equating them etymologically. This argument can be further strengthened by examining the cognates of Saami *al*-postpositions in Permic and Samoyed languages. As already shown in Examples (1–8), the basic local use of corresponding Komi and Nenets postpositions is quite similar:

Komi: *ki viļin ~ gieda alde ~ kädellä* ‘on the hand’ (1), *ju viļe ~ joga ala ~ joelle* ‘on(to) the river’ (2), etc.

Tundra Nenets: *nar°wen° niña ~ juolgesuorpmid(an) alde ~ varpaillani* ‘on my toes’ (7), *ser°nin ~ jieņa ala ~ jällle* ‘on(to) the ice’ (8), etc.

As mentioned earlier, the Finnic *l*-cases have often been considered diachronically related to Permic *l*-cases. Quite like in Finnic, in the Permic languages there is a series of three cases formed with a coaffix *-l-* followed by a primary local case suffix: the genitive (Komi *-len*, Udmurt *-len*), the ablative (Komi *-liš*, Udmurt *-leś*) and the dative (*-li* in both languages). However, the functions of these cases are primarily possessive, and never local (see e.g. Baker 1985: 131–132, 147; Bartens 2000: 82–83, 94–98, 325, 333–335), whereas in contrast the possessive use of Finnic *l*-cases is clearly secondary. As the primary local use of the Finnic *l*-cases is paralleled in Permic by *vil*-postpositions instead, it is much more natural to assume that these two are historically connected.

In the previous subsection it was shown that the use of Udmurt *vil*-postpositions corresponds quite well to that of both Saami *al*-postpositions and Finnic *l*-cases. Bartens (1978: 140–141, 148–150, 187–188) has paid attention to the functional similarity of Saami *al*- and Permic *vil*-postpositions on a purely synchronic level. Some quite prototypical examples of such functions and their equivalents in Finnic can be seen in the following:

(Matthew 16:18)

- (34) a. *Ja mun cealkkán dutnje ahte don leat Biehtár; ja dán*
 and 1SG say.1SG 2SG.ILL COMP 2SG be.2SG Peter and this.GA
bávtti ala mun huksen girkon, ja jápmima riikka
 rock.GA *ala* 1SG build.1SG church.GA.1SG and death.GA kingdom.GA
poarttat eai vuoitte dan. (OT)
 gate.PL NEG.3PL win.CNG that.GA

- b. *Ja mán dunji javlav, dán le Petrus, Bákte, ja dan báktáj*
 and 1SG 2SG.ILL say.1SG 2SG be.2SG Peter rock and that.GEN rock.ILL
iehtjam girkkov tsieggiv, man badjel
 REFL.GEN.1SG church.ACC raise.1SG what.GEN over
jábbmekájmo uvsa e goassak fámov oattjo. (ÅT)
 kingdom.of.the.dead.GEN door.PL NEG.3PL ever that.GA authority.ACC get.CNG
- c. *Mon tijnđ verásko: ton – Petr, ta iz vjle Mon Asleštjm*
 1SG 2SG.DAT say.1SG 2SG Peter this rock vjle 1SG REFL.ABL.1SG
Ĉerkme kildito, adlen kapkajez uz vormj
 church.ACC.1SG found.FUT.1SG hell.GEN gate.DEF NEG.FUT.3SG win.CNG
soje. (VS)
 that.ACC
- d. *Ja minä sanon sinulle: Sinä olet Pietari, ja tälle kalliolle*
 and 1SG say.1SG 2SG.ALL 2SG be.2SG Peter and this.ALL rock.ALL
minä rakennan kirkkoni. Sitä eivät tuonelan
 1SG build.1SG church.GEN.1SG that.PTV NEG.3PL kingdom.of.the.dead.GEN
portit voita. (Raamattu)
 gate.PL win.CNG
- e. *I minä sanon sinule: sinä olet Pedri, Kallivo, i tälle*
 and 1SG say.1SG 2SG.ALL 2SG be.2SG Peter rock and this.ALL
kallivole minä püstütän oman uskojien kanzukunnan.
 rock.ALL 1SG raise.1SG REFL.GEN believer.PL.GEN nation.GEN
Uadun vägi ei voita sidä. (US)
 hell.GEN force NEG.3SG win.CNG it.PTV
- f. *Ja mina ütlen sulle: Sina oled Peetrus ja sellele kaljule*
 and 1SG say.1SG 2SG.ALL 2SG be.2SG Peter and that.ALL rock.ALL
ma ehitan oma koguduse, ja põrgu väravad ei
 1SG build.1SG REFL.GEN congregation.GEN and hell.GEN gate.PL NEG
saa sellest võitu. (Piibel)
 get.CNG that.ELA victory.PTV
- g. *Aga ma kītōb ka sinnōn, ku sa ūod Petrus, ja sīe*
 but 1SG say.1SG also 2SG.DAT COMP 2SG be.2SG Peter and that.GEN
kivmäg pāl [!] ma tieb ylzō entš lātkub, ja
 rock.GEN pāl 1SG make.1SG up REFL.GEN congregation.GEN and

eļ vārōd äb vōit vindō tānda. (UT)

hell.GEN gate.PL NEG get.3PL win.INF that.PTV

‘And I tell you that you are Peter, and **on this rock** I will build my church, and the gates of Hades will not overcome it.’

(Mark 8:25)

- (35) a. *Jesus bijai fas giedaidis su čalmmiid ala;*
 Jesus put.PST.3SG again hand.PL.GA.3SG 3SG.GA eye.PL.GA ala
däl čielggai oaidnu, ja olmmái lei buoriduvvon ja
 now clear.PST.3SG sight and man be.PST.3SG heal.PASS.PST.PTCP and
oinnii buot čielgasit. (OT)
 see.PST.3SG all clear.ADV
- b. *Jesus ájn nuppádis giedajdis álmmå tjalmij nali biejjaj,*
 Jesus again second.ELA hand.PL.ACC.3SG man.GEN eye.PL.GEN nali put.PST.3SG
ja álmmå tjalme dal tjielggin, buorránij ja gájkka
 and man.GEN eye.PL now clear.PST.3PL get.well.PST.3SG and all.ACC
tjielggasit vuojnnegádjij. (ÅT)
 clear.ADV see.INCH.PST.3SG
- c. *Noš ik solen šin vjlaz kize ponem no učkijni*
 but DPT 3SG.GEN eye vile.3SG hand.ACC.3SG put.PST2.3SG and look.INF
kosem. So burmem no vańze čjlkjít adžinj
 order.PST2.3SG 3SG be.healed.PST2.3SG and all.DEF.ACC clear see.INF
kutskem. (VS)
 begin.PST2.3SG
- d. *Jeesus pani uudestaan kätensä miehen silmille, ja nyt*
 Jesus put.PST.3SG again hand.PL.3SG man.GEN eye.PL.ALL and now
tämä näki tarkasti. (Raamattu)
 this see.PST.3SG precise.ADV
- e. *Iisus uvvessah pani käit miehen silmile, i mies*
 Jesus again put.PST.3SG hand.PL man.GEN eye.PL.ALL and man
kačoi tarkazeh. Häi oli parandunnuh da
 look.PST.3SG precisely 3SG be.PST.3SG get.well.PST.PTCP and
nägi kai selgiesti. (US)
 see.PST.3SG all clear.ADV

f. *Seejärel pani Jeesus uuesti käed ta silmadele ja ta*
 thereupon put.PST.3SG Jesus again hand.PL 3SG.GEN eye.PL.ALL and 3SG
sai täiesti terveks ja nägi kõike selgesti. (Piibel)
 get.PST.3SG fully healthy.TRANSL and see.PST.3SG all.PTV clear.ADV

g. *Siz ta tegiž paṅ kädud täm silmad pālõ [!], ja se*
 then 3SG again put.PST.3SG hand.PL 3SG.GEN eye.PL.GEN pālõ and it
vaṅtliz ja voļ tierrõks tiedõt ja
 look.PST.3SG and be.PST.3SG healthy.TRANSL make.PASS.PST.PTCP and
neiz ammõ sieldistiz. (UT)
 see.PST.3SG all.PTV clear.ADV

‘Once more Jesus put his hands **on the man’s eyes**. Then his eyes were opened, his sight was restored, and he saw everything clearly.’

(Acts 7:60)¹⁸

(36) a. *De son luoitádii čippiidis ala ja čuorvvui alla*
 then 3SG descend.PST.3SG knee.PL.GA.3SG ala and shout.PST.3SG high
ijenain: [– –] (OT)
 voice.COM

b. *Buolvatjij nali luojttádij ja jieddnát tjuorvoj: [– –] (ÅT)*
 knee.DIM.PL.GEN nali descend.PST.3SG and loud.ADV shout.PST.3SG

c. *Sobere pid’es vīlaz sultem no badžim kuarajen*
 thereupon knee vīle.3SG settle.PST.3SG and big voice.INS
kešišķisa veram: [– –] (VS)
 shout.CVB say.PST2.3SG

d. *Hän vaipui polvilleen ja huusi kovalla äänellä:*
 [– –] (Raamattu)

3SG descend.PST.3SG knee.PL.ALL.3SG and shout.PST.3SG hard.ADE voice.ADE

e. *Häi pakui polvilleh da kirgai kovah: [– –] (US)*
 3SG fall.PST.3SG knee.PL.ALL.3SG and shout.PST.3SG hard.ILL

f. *Ja ta laskus põlvili ning hüüdis suure*
 and 3SG descend.PST.3SG on.one’s.knees and shout.PST.3SG big.GEN
häälega: [– –] (Piibel)

¹⁸ The Estonian and Livonian adverbs *põlvili* (34f) and *puollindžöl* (34g) are explained in Section 3.4.

voice.COM

g. Aga *puoļļindžōl* *eitōn* *ōriz* *ta* *vegiz* *yōlkōks:*
 but on.one's.knees fall.PST.PTCP shout.PST.3SG 3SG forceful.GEN voice.COM
 [– –] (UT)

‘Then he fell **on his knees** and cried out [– –]’

Besides the New Testament, as another point of comparison one can use the material Rédei (1962: 11–35) presents in his monograph study of Komi postpositions. Rédei cites a total of 169 usage examples of the postpositions *vijin* ‘on’, *vijis* ‘off from’ ja *vile* ‘onto’ in various local functions. According to our calculations, at least 96 (57%) of these can be naturally translated with an *l*-case form in Finnish. In addition to local functions, Rédei’s study also includes numerous examples of postpositions in more marginal functions, such as postpositional phrases governed by various individual verbs. The set of examples Rédei has chosen for his study is naturally not statistically representative of the use of these postpositions, but even if one were to calculate all the cases listed, the resulting correspondence rate is 36%, 117 cases out of 321.

Regrettably, from the Samoyed languages even less suitable material is available for comparison. However, Mikola (1975: 45–50) gives a total of 79 examples of the use of the Nenets postpositions *niina* ‘on’, *nid*° ‘off from’ and *nih* ‘onto’, and this material already gives a rough picture of their basic functions. Roughly two fifths (at least 31) of the examples can be naturally translated with a Finnic *l*-case form. Even though such a limited material does not give a statistically reliable picture of the use of Nenets *ni*-postpositions, it still demonstrates that the basic local functions of the Uralic **il*-postpositions are quite similar not only between Saami and Permic languages, but also with Nenets. As Saami, Permic and Samoyed (Nenets) are only extremely remotely related branches of Uralic which have not been in any known areal contact with each other, these functions can be quite reliably reconstructed into Proto-Uralic.¹⁹ Further, it may be noted that Uralic **il*- has also survived in Western Mari in which the functions of the postpositions *βalnə* ‘on’, *βə(l)kə* ‘onto’ and *βəlec* ‘off’ largely correspond to those of their Saami, Permic and Samoyed equivalents

¹⁹ It is hardly necessary to mention that very recently certain dialects of Saami, Komi, and Nenets have come into contact in Northern Russia and on the Kola Peninsula. These recent contacts naturally cannot explain any similarities between the use of old Uralic postpositions in these languages.

discussed above (e.g., *lām βalnə* ‘on the snow’, *i βalnə* ‘on the ice’, *stöl βə(l)kə* ‘onto the table’ and *tāl βəlec* ‘off the fire’ etc.; see also Moisio & Saarinen 2008 s.v. *βəl-*).

The reconstruction presented above provides a very strong argument for equating the Finnic *l*-cases with Uralic **ül*-postpositions. As it is recognized that Proto-Uralic already had the postpositions **ül-nä* ‘on’, **ül-tä* ‘off from’ and **üli-ŋ* ‘onto’, and in Proto-Finnic one finds the highly similar case suffixes **-l-nA*, **-l-tA* and **-l(l)-en* in the same function, it is easy to believe that these suffixes are originally agglutinated postpositions.

3.4. On the phonological and morphological development of the *l*-cases

As strong functional arguments have now been presented in favor of the ‘*ül*-theory’, it is necessary to examine the phonological and morphological aspects of the new explanation. The development of Finnic *l*-case endings out of Uralic **ül*-postpositions is not phonologically regular, but the suffixation of independent postpositions cannot even in theory be based on any sound law; a regular development could only have resulted in **ül*-postpositions being retained as independent words. However, it is necessary to posit only three irregular changes: 1) univerbation of postpositional phrases by way of loss of the vowel **ü*; 2) loss of the genitive ending **-n* in the adessive and the allative; 3) adjustment to vowel harmony. The assumed development can be seen in Table 7.

Pre-Finnic:	<i>*talja-n ülnä</i>	<i>*talja-n ültä</i>	<i>*talja-n üli-ŋ</i>
1) loss of <i>*ü</i>	<i>(*taljanlnä)</i>	<i>(*taljanltä)</i>	<i>*taljanlen</i>
2) loss of <i>*-n-</i>	<i>*taljalnä</i>	<i>*taljaltä</i>	<i>*taljanlen</i>
3) vowel harmony	<i>*taljalla</i>	<i>*taljalta</i>	<i>*taljallen</i>
	‘on the hide’	‘off/from the hide’	‘onto the hide’

Table 7. The phonological development of **ül*-postpositions into **l*-cases.

In the scheme in table 7 one can also see other phonological developments, namely the assimilations **ln > *ll* (in the adessive) and **nl > *ll* (in the allative), the vowel lowering **i > *e* in an unstressed syllable, and the shift of the lative ending **-ŋ* into **-n* in word-final position. These can be interpreted as regular. The change **ln > *ll* is well-established in lexical items (e.g., Finnish *halla* ‘night-frost’ < **šalna* < Proto-Baltic **šalnā* > Lithuanian *šalnà*). The change **-ŋ > *-n* has not traditionally been considered a sound law due to the paucity of examples of a velar nasal in word-final position. However, the assumption of this

change makes it possible to equate the lative suffixes **-n* and **-k* and derive both of them from the earlier form **-ŋ*, the lative suffix attested in Mordvin and Samoyed languages (Janhunen 1998: 469; Bartens 1999: 76; Ylikoski 2011: 256–258). In Proto-Saami there was a sound change **-ŋ > *-k*: cf. North Saami *ala* < Proto-Saami **elē-k* < Proto-Uralic **üli-ŋ* (cf. Sammallahti 1998: 226).²⁰

Regarding change 1), univerbation of the original postpositions and their complements has led to the situation in which the original initial vowel of the postpositions has become stressless and prone to loss. One can add that vowel reduction and loss is especially common in the case of close vowels, such as **ü*. Unstressed close vowels become easily reduced and lost, apparently because their inherent phonetic duration is shorter than that of non-close vowels (Laver 1994: 435–436). This process can be seen in the phonological history of some branches of Uralic as well: Proto-Uralic unstressed **i* has become more frequently reduced or lost in daughter branches than the open vowels **a* and **ä*, e.g. in Proto-Mordvin (Bartens 1999: 64–65) and Proto-Samoyed (Janhunen 1981: 247–248; Sammallahti 1988: 485), and even in certain eastern dialects of Finnish (cf. dialectal Finnish *ves’* ‘water’ < **vesi*, but *pesä* ‘nest’ unchanged).²¹

Change 2), the loss of the genitive ending **-n*, can be considered a direct consequence of change 1). The loss of **ü* would have resulted in the awkward consonant clusters **nlŋ* and **nlt* in the adessive and the allative, and due to phonotactic restrictions such clusters would have been simplified. In fact, it is doubtful whether forms such as **taljanlnä* and **taljanltä* even occurred in the language at any period; it would seem more natural to assume that the genitive ending **-n* was lost at the same time with the vowel **ü*. Notably, the earlier presence of the genitive ending **-n* is revealed by the allative ending **-llen*: the geminate lateral

²⁰ Traditionally a large number of different Uralic directional case (‘lative’) suffixes have been assumed; at least the “latives” **-ŋ*, **-n*, **-ń*, **-k*, **-s* and **-j* have been frequently reconstructed in studies on Uralic case systems. However, it is not natural to assume that any real language would have had such a multitude of directional case suffixes, especially as no distinction between these suffixes has been established in terms of either their function or their morphological distribution. In our opinion, it is much more plausible that the ‘lative’ endings **-k*, **-n* and **-ń* (and perhaps also **j*) attested in various languages reflect an earlier **-ŋ*. This question is, however, not relevant to the origin of the Finnic *l*-cases: our theory is not affected by whether the **-n* in the allative suffix **-llen* reflects an earlier **-ŋ* or some other directional case suffix.

²¹ In fact, syncopes and apocopes seem to follow such a hierarchy that if non-close vowels are lost, close vowels must also be lost. For instance, in Estonian all final vowels were lost after long stressed syllables, as in **kaksi > kaks* ‘two’, **paksu > paks* ‘thick’, **maksu > maks* ‘liver’. But in contrast, no Uralic language seems to have lost non-close vowels in positions where close vowels have been preserved.

reflects an earlier cluster **nl*, which was assimilated in the same way as in compounds and on word boundaries: compare Finnish *sellainen* ‘that kind of’, *tällainen* ‘this kind of’ (<< *sen lajinen* [it.GEN kind.of], *tän lajinen* [this.GEN kind.of]) and <*talon luona*> /*talol_luonal* ‘at the house’. In the context of the earlier *lA*-theory the geminate had been explained as a result of influence of the adessive ending *-lla*, but in our theory there is no need to resort to such an explanation. However, it must be noted that the loss of the Proto-Finnic genitive ending **-n* in constructions that would gradually develop into *l*-cases is conceptually independent of the later sound changes that have led to the variegated development and partly complete loss of **-n* in individual Finnic languages.

One should note that in the plural forms the phonological leap from postpositions to case endings has been even smaller. The genitive plural ending was originally merely **-j*, as still attested in Saami (Sammallahti 1998: 70); the genitive plural endings **-ten* and **-iten* attested in Finnic, which combine one or two plural markers with the genitive singular ending **-n*, are later innovations. Hence, in the plural forms one only needs to postulate the loss of **ü* and an adjustment to vowel harmony: e.g., **talja-j ü-l-nä* [hide-PL.GEN on-LOC] > **talja-j-lnä* > Finnish *taljoilla* ‘on hides’ (note that the change **aj* > **oi* is regular in Finnic; see Kallio 2012a; 2012b: 234, Footnote 16). As **-j-* became interpreted as a plural marker, such cliticized forms as **talja-j-lnä* have probably offered a strong analogical model for a singular form **talja-lnä*.

At the stage when the **ül*-postpositions had become phonologically reduced and cliticized through changes 1) and 2), their eventual adjustment to vowel harmony was only predictable. One can also observe this in some later suffixation processes, such as in the obscured Finnish compounds *tälla(i)nen* ~ *tällä(i)nen* ‘this kind of’ (<< *tän lajinen*) and *tämmö(i)nen* id. (<< *tän moinen*). The same has happened to case suffixes that originate from postpositions in Hungarian, another Uralic language with harmony: e.g., the dative ending *-nak* ~ *-nek* has become adjusted to vowel harmony, but the original front vocalic form *nek-* can still be seen in postpositional forms such as *nek-em* ‘to me’, *nek-ed* ‘to you’, *nek-i* ‘to him/her’, etc. (on the etymology of the suffix, see Kulonen 1993: 85; Honti 2006).

Even though the development of **ül*-postpositions into case endings is phonologically quite a natural process, one can still add that also the previously existing local case endings have probably exerted an analogical influence. As seen in Table 8, the primary Uralic local case endings and especially the series of secondary *s*-cases have provided a model to which the series of cliticized **ül*-postpositions could be naturally adapted.

Primary local cases	<i>s</i> -cases	* <i>ül</i> -postp.	> <i>l</i> -cases
*- <i>nA</i>	*- <i>s-nA</i>	* <i>ül-nä</i>	> *- <i>l-nA</i>
*- <i>tA</i>	*- <i>s-tA</i>	* <i>ül-tä</i>	> *- <i>l-tA</i>
*- <i>η</i> (? ~ *- <i>n</i> , *- <i>k</i>)	*- <i>s-en</i> (? < *- <i>s-ij</i>)	* <i>üli-η</i>	> *- <i>ll-en</i>

Table 8. The analogical influence of Uralic primary local cases and *s*-cases in the development of the *l*-cases.

The phonological irregularities that must be assumed in the development of *l*-cases are rather small, and can be plausibly accounted for. In fact, one can note that the reductive developments assumed here are rather minimal when compared against, for instance, the case forms that have later developed out of postpositions in Veps (Tikka 1992). It can be added that the earlier theory based on derivational suffix *-lA* was not entirely free of phonological irregularities either. If *l*-cases had developed out of the derivational suffix *-*lA*, one would have to postulate an irregular loss of the vowel **A* before a primary case ending; but the so-called consonant-stems that developed through syncope in Uralic are regular only for Finnic *e*-stems, not for *A*-stems: compare Finnish *kieli* ‘tongue’ : *kiele-n* GEN : *kiel-tä* PTV vs. *kala* ‘fish’ : *kala-n* GEN : *kala-a* PTV (< **kala-ta*, instead of **kal-ta*).

When estimating the plausibility of the development outlined above, it is essential to remember that the suffixation of independent postpositions is by definition an extraordinary process which cannot be based on any regular phonological changes whatsoever. A regular development could only have led to the maintenance of the postpositions as independent words. While the Komi postpositional phrase *mu vjl-jn* [earth on-INE] ‘on the earth’ can be regarded as an expected reflex of its Uralic predecessor **m̄ixi-n üll(i)-nä*, the Olonetsian *mua-l* [earth-ADE] as well as the Southern Permyak superessive form *mu-vjn* id. (< **mu vjlin*) to be discussed in Section 3.6 below are, from a purely phonological point of view, anomalous cognates of the Komi phrase.

In addition to sound changes, also one morphological change must be postulated. If *l*-cases indeed developed from postpositions, the development probably had an intermediate phase where a possessive suffix preceded the case ending instead of following it. This is the case, for example, with the comitative plural in Saami, which developed from a postposition **guoimmi* ‘with’. In all other case forms possessive suffixes follow the case suffix in North Saami, but in the comitative plural the order is the reverse. Compare North Saami *máná-i-guin* [child-PL-COM] ‘with children’ vs. *máná-id-an-guin* [child-PL-1SG-COM] ‘with my children’ (< **máná-id-an guoimmi* [child-PL.GEN-1SG with]); expected forms such as **máná-*

i-guin-an [child-PL-COM-1SG] do not occur in the language, at least yet. Hence, one must assume that the development of the Finnic *l*-cases took place as shown in Table 9.

	‘on the back’	‘on his/her back’
1. postpositional phrase	* <i>selkä-n ül-nä</i>	* <i>selkä-n-sä ül-nä</i>
2. suffixation	* <i>selkä-lnä</i>	* <i>selkä-nsä-lnä</i>
3. shift of suffix order	* <i>selkä-lnä</i>	* <i>selkä-lnä-nsä</i>
4. Proto-Finnic	* <i>selkä-llä</i>	* <i>selkä-llä-nsä</i>

Table 9. The morphological development of the *l*-cases.

It is noteworthy that Livonian – where *l*-cases only occur as frozen relic morphemes – certain adverbs seem to have preserved traces of the phase when the suffix order had not yet been reverted: e.g. *sālganžōl*, *sālgandžōl* ‘on one’s back’ < **sālkä-nsä-llä* << **sālkä-n-sä ül-nä* [back-GEN-3SG on-LOC] and *pōļļindžōl*, *pōļļizōl* ‘on one’s knees’ < **polvi-nsa-lla* << **polwi(-j)-n-sa ül-nä* [knee-(PL-)GEN-3SG on-LOC]. Mägiste (1928) has tried to explain these forms otherwise: as possessive suffixes lost their productivity in Livonian, Mägiste hypothesizes that in such cases a possessive form would first have become lexicalized, after which a case ending would have been added to this lexicalized form. This explanation is not convincing, however: it is very hard to see why inflected forms such as **sālkänsä* ‘his/her back’ and **polvinsa* ‘his/her knees’ would have become lexicalized in the first place, and why adessive forms would then have been formed from these lexicalized forms – only to become lexicalized again in their turn. It is also worth noting that Estonian, where possessive suffixes likewise lost their productivity, has no such lexicalized possessive forms such as **selgas* ‘his/her back’ or **põlves* ‘his/her knee(s)’, or the like (*põlves* is, of course, a regular inessive singular form of *põlv* ‘knee’). Instead, in Estonian there is an adverb type *selili* ~ *seljali* ‘on one’s back’, *põlvili* ‘on one’s knees’ etc. (see [38], Section 3.3). Hence, the Livonian adverbs *sālganžōl* and *pōļļindžōl* offer yet one more piece of evidence for the postpositional origin of the *l*-cases.

3.5. Additional evidence from Finnic

If the Finnic *l*-cases developed through agglutination of **ül*-postpositions, one expects that these postpositions were lost as independent words at the same time. For example, the Estonian comitative ending *-ga* and the Saami comitative plural ending *-guin* emerged when

an original postposition developed into a case ending (*-ga* < **kās*; *-guin* < **guoimmi*) – they have not been preserved as independent postpositions. However, in Finnish there are both *l*-cases that developed from Uralic **ül*-postpositions and – in a slightly different function – also a series of postpositions and adverbs inherited from the same root: *yllä* ‘above; on (of clothes)’, *yltä* ‘from above; off (of clothes)’ and *ylle* ‘(to) above, over; (putting) on (of clothes)’. Below we will explain how this state of affairs can be accounted for.

First, it is worth noting that even though Finnish has a series of *yl*-postpositions, their use only extremely rarely corresponds to that of Saami *al*-postpositions. In our entire material there are only a handful of examples of this kind:

- (37) *Seavdnjat seaivvui sullo ala* [– –]
 darkness land.PST.3SG **island.GA ala**
 ‘*Pimeys laskeutui saaren ylle* [– –]’
 darkness descend.PST.3SG **island.GEN ylle**

‘Darkness came down **over the island** [– –]’ (Jansson 1990: 144; 1979: 129)

The extreme rarity of these kinds of correspondences already suggests that the use of the Finnish *yl*-series of postpositions in the ‘above’ / ‘over’ function is in some way secondary. This is, indeed, obvious also from the fact such a function is not prominent in the Permic and Nenets reflexes of the Uralic **ül*-postpositions, either.

It is noteworthy that while modern literary Finnish has *yl*-postpositions in phrases such as *meren yllä* ‘over the sea’ and *saaren yllä* ‘over the island’, this is quite atypical of other Finnic languages – and, in fact, also of the traditional Finnish dialects. According to the data in the Lexical Archive of Finnish Dialects, the words *yllä*, *yltä* and *ylle* are found mainly in the western dialects; in the eastern dialects they mostly occur just in idioms and fixed phrases such as *olla yllä* ‘to be awake’ and *yltä päältä X:ssä* ‘completely, altogether covered by / dirtied with X’. Moreover, even in the western dialects the words *yllä*, *yltä* and *ylle* are traditionally not used as postpositions, but only as adverbs in reference to clothing: e.g., *takki yllä* ‘with a jacket on’. Examples of their use as postpositions are exceedingly rare in the Lexical Archive of Finnish Dialects. The following is apparently the only case which has a noun (a participle functioning as a noun) as the complement of the postposition:

- (38) *silkki levitetiiv_vihittävien ylle*
 silk spread.PST.PASS **wed.PASS.PST.PL.GEN ylle**

‘A silk was spread **over the bride and the bridegroom.**’ (LAFD, Kankaanpää)

In addition one can find a couple of examples involving pronouns, such as the following:

- (39) *seon_ka_larru_sä* *mun_ülläin*
 it.be.3SG fish.GEN.trap 1SG.GEN **yllä.1SG**
 ‘It is a fish trap [which I have] **on me.**’ (i.e., ‘I am wearing it as if it were a piece of clothing.’) (LAFD, Lohja)

The situation is quite similar in other Finnic languages. In Estonian, the words *üll* ‘on’, *ült* ‘off’ and *ülle* ‘on(to)’ are used in a similar way, as adverbs in reference to clothing. On the other hand, in Karelian, Lude and Veps no cognates of these words are found at all – they have been completely lost as adverbs as well.

It is worth noting that even though the use of Finnish *yllä*, *yltä* and *ylle* as postpositions is extremely limited, the prolativ form of the same root, *yli* ~ *ylitse* ‘over’, is an entirely common postposition. This can be compared to the use of the morphologically fully analogous postpositional series based on the root *al-* ‘under’: Finnish *alla* ‘under.LOC’, *alta* ‘under.ABL’, *alle* ‘under.LAT’ and *ali* ~ *alitse* ‘under.PROL’. All members of the latter series frequently occur as postpositions. Leino (1990: 139) has paid attention to this discrepancy between the two postpositional series. He interprets the situation so that a new supplementary series of postpositions is developing in Finnish: *päällä* ‘on.LOC’, *päältä* ‘on.ABL’, *päälle* ‘on.LAT’, *yli* ~ *ylitse* ‘on.PROL’. This supplementation can, indeed, be quite clearly seen by comparing the relative frequencies of Finnish *yl-*, *pääl-*, and *al-*postpositions with the pronoun *se* ‘it’ as their complement. The numbers of tokens in Table 10 are based on searches for the given character strings on the Google search engine on the World Wide Web.

<i>sen yllä</i>	909	<i>sen päällä</i>	28 700		<i>sen alla</i>	41 500
<i>sen yltä</i>	28	<i>sen päältä</i>	1 230		<i>sen alta</i>	14 700
<i>sen ylle</i>	519	<i>sen päälle</i>	76 300	(cf.)	<i>sen alle</i>	40 500
<i>sen yli</i>	43 000	<i>sen päälli</i>	–		<i>sen ali</i>	271
<i>sen ylitse</i>	988	<i>sen päällitse</i>	8		<i>sen alitse</i>	70

Table 10. The relative frequencies of Finnish *yl-*, *pääl-* and *al-*postpositions after the pronoun *se* ‘it’ (Google 11.4.2007; the search was limited to the top-level domain “.fi”).

The statistics in Table 10 verify Leino’s main observation. It must be pointed out, however, that Leino does not even touch upon the possible reasons for the development of the supplementary postpositional series *päällä, päältä, päälle, yli ~ ylitse*. Moreover, contrary to Leino’s claim, this series is no longer “developing”: even though *yllä, yltä* and *ylle* have limited use as postpositions in modern literary Finnish, in old literary Finnish the supplementation has been even more complete. This can be seen in Table 11, where we present the relative frequencies of *yl-*, *pääl-* and *al-*postpositions after words ending in the nasal *-n* in the Corpus of Old Literary Finnish (*Vanhan kirjasuomen korpus*); the majority of words ending in *-n* are genitive singular forms.

<i>-n yllä</i>	1	<i>-n päällä</i>	1 413		<i>-n alla</i>	2 066
<i>-n yltä</i>	4	<i>-n päältä</i>	117		<i>-n alta</i>	92
<i>-n ylle</i>	1	<i>-n päälle</i>	4 491	(cf.)	<i>-n alle</i>	407
<i>-n yli</i>	145	<i>-n päälli</i>	–		<i>-n ali</i>	–
<i>-n ylitse</i>	1 642	<i>-n päällitse</i>	7		<i>-n alitse</i>	1

Table 11. The relative frequencies of *yl-*, *pääl-* and *al-*words after words ending in the nasal *-n* in old literary Finnish. The material derives from The Corpus of Old Literary Finnish (*Vanhan kirjasuomen korpus*; Research Institute for the Languages of Finland), containing approximately 3 200 000 words since 1543 until the early 1800s. The orthographic variation in old literary Finnish has been normalized.

In the entire material in the Corpus of Old Literary Finnish one can find only six instances where *yllä*, *yltä* or *ylle* is preceded by a word ending in *-n*, and none of these instances is in fact a postposition. Instead, all these tokens are adverbs that are coincidentally preceded by a word-form ending in *-n*, for example:

- (40) *2:xi* *On* *tarpellinen,* *että* *otetan* ***ylle*** *paxummat* *waattet,*
 secondly be.3SG important COMP take.PASS *ylle* thick.CMPV.PL garment.PL
eli pannan ***yllä*** *olewat* *waattet* *kiinni* [– –]
 or put.PASS *yllä* be.PRS.PTCP.PL garment.PL closed

‘Secondly, it is important that one puts **on** thicker clothes, or buttons up the clothes one has **on**.’ (Suomenkieliset Tieto-Sanomat 17/1776)

On the other hand, one can find some forms with possessive suffixes; these kinds of cases were already discussed above in connection with the use of *yllä*, *yltä*, and *ylle* in the Finnish dialects:

(1 Kings 11:30)

- (41) *Ja Ahia rupeis sijhen uten hameseen cuin hänen ylläns*
 and A. grasp.PST.3SG it.ILL new.ILL dress.ILL which 3SG.GEN *yllä*.3SG
oli / ja rewäis cahdextoistakymmenexi cappalexī [– –]
 be.PST.3SG and tear.PST.3SG twelve.TRANSL piece.TRANSL
 ‘And Ahijah took hold of the new cloak **he was wearing** and tore it into twelve pieces.’
 (Biblia 1642)

(1 Samuel 17:5)

- (42) *Ja hänellä oli waskilacki pääsäns / ja suomuxen caltainen*
 and 3SG.ADE be.PST.3SG bronze.hat head.INE.3SG and scale.GEN like
panzari ylläns [– –]
 armor *yllä*.3SG
 ‘He had a bronze helmet on his head and **he wore** a scale-like armor.’ (Biblia 1642)

Thus, as regards the use of the *yl*-series, the Old Literary Finnish material thus yields quite exactly the same picture as the dialect materials in the Lexical Archive of Finnish Dialects: the words *yllä*, *yltä* and *ylle* have been primarily used as adverbs, especially in reference to clothing, but extremely rarely as postpositions. One can add that even the use of the Estonian *ül*- and *peal*-series conforms to this picture, as seen in Table 12 (the very high frequency of the phrases *selle peale* and *selle üle* is because these occur as fixed phrases with the meaning ‘in addition to’).

<i>selle üll</i>	6	<i>selle peal</i>	18 200	<i>selle all</i>	66 800
<i>selle ült</i>	–	<i>selle pealt</i>	15 600	<i>selle alt</i>	10 600
<i>selle ülle</i>	17	<i>selle peale</i>	241 000	(cf.) <i>selle alla</i>	26 500
<i>selle üle</i>	356 000	<i>selle peali</i>	–	<i>selle ala</i>	42 400
<i>selle ülitsi/üleksi</i>	–	<i>selle pealitsi</i>	–	<i>selle</i>	–
				<i>alitsi/alatsi</i>	–

Table 12. The relative frequencies of Estonian *ül*-, *peal*- and *al*-words after the pronoun form *selle* ‘it.GEN’ (Google 11.4.2007; the search was limited to the top-level domain “.ee”).

On the basis of the discussion above one can conclude that the use of Finnish *yllä*, *yltä* and *ylle* as postpositions is not a direct inheritance from Proto-Uralic. Instead, these words were originally adverbs in Finnic, and they have only become reintroduced as postpositions in modern Finnish. The innovation seems to be characteristic of literary language in particular, as these postpositions seem to have a rather formal tone and are less used in colloquial speech. Merimaa (2002: 40–43) has pointed out that the words *yllä*, *yltä* and *ylle* are described as postpositions for the first time in Renvall’s grammar (1840), even though the prolativ postpositions *yli* and *ylitse* are mentioned in Finnish grammars since Petraeus (1649) already. It is also worth noting that both Renvall and the grammars from the late 19th century only cite examples involving clothing, e.g. *Riisun takin yltäni* [undress.1SG coat.GEN *yltä*.1SG] ‘I take my coat off’.

Thus, leaving the innovations of modern literary Finnish aside, the original Uralic **ül-* postpositions are attested in Finnic almost exclusively in prolativ use.²² The reason for this is that the postpositions based on the root **ül-* developed into case suffixes, and only the prolativ form *yli* ~ *ylitse* was preserved as an independent postposition. This raises an obvious question: why, then, did the prolativ postposition not develop into a case suffix as well? The reason seems to be the analogical model provided by primary Uralic local cases (locative **-nA*, separative **-tA* and lative **-ŋ*) and especially the *s*-cases (inessive **-s-nA*, relative **-s-tA* and illative **s-in*). The tripartite structure of these case series provided a model for the development for three ‘external’ local cases, but not for a ‘superprolativ’ case (see Table 6 in Section 3.4).

The idea that **ül-* words have been preserved when used as adverbs, but changed into case suffixes when used as postpositions, can be compared to the emergence of the Estonian comitative case. In this case, too, the original postposition **kaas* developed into a case suffix, but was preserved as an independent adverb (see Figure 1).

²² The Livonian postposition *i’l* has a much wider range in uses than its cognates elsewhere in Finnic, because the *l*-cases have not been preserved as productive case forms in this language (see, e.g., Sjögren & Wiedemann 1861: 37–38, 72–74; Itkonen 1957a: 310–311; Kettunen 1957: 429–430; Itkonen 1957b: 435–436; Halling 1996, 1999).

postposition > case	adverb preserved
<i>*isän kaas</i>	<i>*isä kaas</i>
↓	↓
<i>Isaga</i>	<i>isa ka</i>
‘with father’	‘father also’

Figure 1. The development of the postposition and adverb **kaas* in Estonian.

The same kind of result can also be seen in the Saami comitative plural (North Saami *-iguin*), which has developed from a postposition **kuojmē(-n)*, cf. North Saami *guoibmi* ‘companion, spouse’ (Korhonen 1981: 225–226; Sammallahti 1998: 69–70). At least in most Saami languages the comitative plural ending is clearly a case suffix, even though the South Saami comitative plurals have also been analyzed as postpositional phrases (Bergsland 1946: 148). Even in South Saami, *gujmie* is clearly a marker of case regardless of whether it is analyzed as a suffix or postposition, because it is only used in connection of a plural form and it is thus in complementary distribution with the comitative singular suffix *-ine ~ -inie*. A very rare exception to this pattern is that *gujmie* can also be attached to a phrase with plural semantics but singular morphology, e.g. *aehtjie gon tjidtjien gujmie* [father and mother.GEN *gujmie*] ‘with father and mother’ (LS: 19); *-n* is the genitive singular suffix.

Regardless of how South Saami comitative plurals are analyzed, it is quite evident that in most Saami languages the comitative plurals are true case forms that originated from a postpositional phrase. The postpositional background can be seen, for instance, in conjunction reduction (e.g. *áhká-id ja máná-iguin* [wife-PL.GA and child-PL.COM] ‘with wives and children’), and from the fact that possessive suffixes precede the case ending (e.g. *máná-id-an-guin* [child-PL(.GA)-1SG-PL.COM] ‘with my children’) instead of following it as in other case forms. In older North Saami texts the ending is occasionally even spelt as a distinct word and attached to singular forms:

- (43) [– –], *moft Ibmel su oskaldasvuodaines, su vuoiņas ja*
 how God 3SG.GA faithfulness.COM.3SG 3SG.GA **spirit.GA.3SG and**
engelidis guim divčodæme bokte sin varjali
angel.PL.GA.3SG guim take.care.AN.GA by 3PL.GA protect.PST.3SG
lokkamættom vaddoin ja oasetesvuodain [– –]
 countless difficulty.PL.LOC and misfortune.PL.LOC
 ‘– – how God protected them from countless difficulties and misfortunes by taking care
 of them with his faithfulness, **with his Spirit and angels.**’ (Muitalægje 1/1873: 3)

Even so, the use of this word as a true postposition is exceedingly rare in modern Saami languages, if the South Saami comitative plurals are analyzed as case forms rather than postpositional phrases. But in South Saami, *gujmie* is still used as an independent adverb in the meaning ‘along’, as in *båetieh gujmie* [come.IMP.2SG along] ‘come along!’. The original postposition has thus developed into a case suffix, but the adverb has been preserved, exactly as in the case of the Estonian *ga*-comitative.

Using the Estonian and Saami comitatives as parallels, the development of Uralic **ül*-postpositions and adverbs in Finnic can be assumed to have taken place as shown in Figure 2.

postposition > case	adverb preserved
<i>*talja-n üil-nä</i>	<i>*talja üil-nä</i>
↓	↓
<i>taljalla</i>	<i>talja yllä</i>
‘on a hide’	‘(with) a hide on’

Figure 2. The development of **ül*-postpositions and adverbs in Finnic.

3.6. Parallels from other languages

In addition to all the arguments above, the *ül*-theory receives further support from parallels in other branches of the Uralic family. A particularly illuminating parallel is provided by the case system in the Southern Permyak dialects of Komi. The original Komi *vjl*-series of postpositions – i.e., the etymological cognates of Saami *al*-postpositions – has developed into a set of case suffixes in Southern Permyak dialects (Batalova 1982: 91–98; Baker 1985: 66–

68, 175–191). The agglutination process, which is evidently fairly recent, is illustrated in Table 13.

superessive	<i>-l(l)in ~ -v(v)in</i>	< <i>v̥il̥in</i>
superlative	<i>-l(l)e ~ -v(v)e</i>	< <i>v̥il̥e</i>
sublative	<i>-l(l)iś ~ -l(l)iś</i> ~ <i>-v(v)iś ~ -v(v)iś</i>	< <i>v̥il̥iś ~ v̥il̥iś</i>
perlative	<i>-l(l)eť ~ -v(v)eť</i>	< <i>v̥il̥eť</i>
superterminative	<i>-l(l)ež ~ -v(v)ež</i>	< <i>v̥il̥ež</i>

Table 13. The external local cases in the Southern Permyak dialects of Komi.

Bartens (2000: 79) even calls these Southern Permyak case forms ‘external local cases’, and this choice of words indeed describes well their striking functional similarity to the Finnic *l*-cases. The basic local use of the Southern Permyak external local cases is quite like that of Finnish *l*-cases, as shown by the following examples:

- (44) a. *gor-le* [*<< gor v̥il̥e*] *kaj*
 oven-*le* [oven on.ILL] go.IMP.2SG
 ‘*mene uunille*’
 go.IMP.2SG oven.ALL
 ‘Go **onto the oven!**’ (Batalova 1982: 94)
- b. *šontišnj gor-ljn* [*<< gor v̥il̥jn*]
 warm.oneself.INF oven-*ljn* [oven on.INE]
 ‘*lämmittelä uunilla*’
 warm.oneself.INF oven.ADE
 ‘warm oneself **on the oven**’ (ibid.: 96)
- c. *gor-ljš* [*<< gor v̥il̥jš*] *oz leććj*
 oven-*ljš* [oven on.ELA] NEG.FUT.3SG descend.CNG
 ‘*ei laskeudu uunilta*’
 NEG.3SG descend.CNG oven.ABL
 ‘is not coming down **from the oven**’ (ibid.: 96)

- (45) *kajniṭe* *ibbesle* [<< *ibbes viḷe*]
 go.INF.ACC.2SG field.PL.*le* [field.PL on.ILL]
 ‘*mennä pelloille*’
 go.INF field.PL.ALL
 ‘go (on)to the fields’ (ibid.: 95)

- (46) *koklas* [<< *kok viḷas*] *sulale*
 foot-*las* [foot on.INE.3SG] stand.3SG
 ‘*seisoo jaloillaan*’
 stand.3SG foot.PL.ADE.3SG
 ‘stands on his feet’ (ibid.: 94)

- (47) *sulali* *prontlas* [<< *pront viḷas*]
 stand.PST.1SG front-*las* [front on.INE.3SG]
 ‘*seisoin rintamalla*’
 stand.PST.1SG front.ADE
 ‘I stood on the front line [in battle].’ (ibid.: 95)

In addition to Komi dialects, the initial stages of such a development can be seen in Inari Saami and in the Eastern Finnmark dialects of North Saami. In these languages the *al*-postpositions (North Saami *alde* and *ala*, Inari Saami *alne* and *oolâ*) are often pronounced phonologically reduced and they tend to come cliticized to the preceding noun. Consider the following Inari Saami example:

- (48) [– –] *jä nūut tot vaaldij tom stuurra keeḍgi oalgg-ool*
 and so it take.PST.3SG it.ACC big.ATTR rock.ACC **shoulder.GEN-oolâ**
jä kuodij tom stuurra geeḍgi ḍoho njarggeij vuástâ jä...
 and carry.PST.3SG it.ACC big.ATTR rock.ACC there cape.PL.GEN against and
ḍælle ḍot vaaldij oalgg-aln tom geeḍgi mæddal [– –]
 then it take.PST.3SG **shoulder.GEN-alne** it.ACC rock.ACC away
 ‘And so he took that big rock on his shoulder, and carried that big rock over there, towards the land points, and ... then he took that rock off his shoulder.’ (IK: 27)

Similar cliticization of the postpositions *alde* and *ala* is also extremely common in the Eastern Finnmark dialects of North Saami, even though this is not commonly represented in literary usage:

- (49) *lpäilk_all* ~ *lpäilk_âll* (<*bálgá alde*>) ‘on the path’
lpäilk_alal ~ *lpäilk_âlal* (<*bálgá ala*>) ‘onto the path’

The cliticization of these Saami postpositions is also discussed by Bartens (1978: 191–195); see also IW (s.v. *ale*-).²³ One can still add that also in other Saami languages one finds evidence for the proneness of **ül*-postpositions to become cliticized. In almost all western Saami languages, in an area reaching from South Saami to the Western Finnmark dialects of North Saami, the reflexes of **ül*-postpositions show an initial nasal *n*–: cf. South Saami *nelnie*, *nelhtie*, *nille*, Lule Saami *nanna*, *nalta*, *nali*, North Saami (western Finnmark) *nalde*, *nala*. The nasal is originally the Proto-Saami genitive singular ending **-n*, which was attached to the complement of the postposition. This shows that these postpositions have had a tendency of becoming prosodically attached to the preceding nouns, and offers yet one more argument for the idea that a similar process of agglutination process began also in Pre-Proto-Finnic.

3.7. Comparing the previous *IA*-theory and the new *ül*-theory

At this point, when we have already presented many kinds of evidence for the *ül*-theory, it is worthwhile to compare the new explanation against the previous *IA*-theory. The traditional explanation – and the assumptions implicit in it – are illustrated in Figure 3.

²³ According to Sammallahti (1977: 239), similar cliticizations also occur in the Eastern Eanodat dialects which belong to the Western Finnmark dialect group. Sammallahti cites the postpositional phrases *lriepan-jok(aa)_alaal* ‘onto the river Riebanjohka’ and *lriepan-jok(aa)_al'tel* ‘on the river Riebanjohka’, which he considers phrasal loans from the adjacent Eastern Finnmark dialects spoken in Anár.

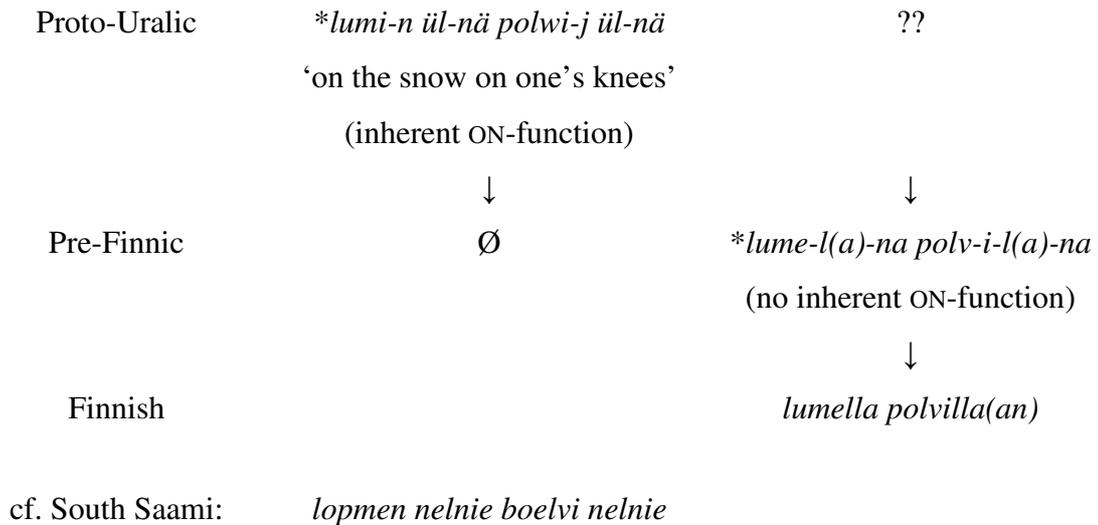


Figure 3. The marking of the ON-function from Proto-Uralic to modern Finnish according to *lA*-theory.

In comparison to the *üil*-theory, the major weakness of the *lA*-theory is that it presupposes a much more complicated path of development. The comparative method shows that Proto-Uralic used a set of **üil*-postpositions to mark the ON-function. Therefore, the *lA*-theory forces one to assume that these postpositional phrases were **replaced** in Pre-Finnic with derivatives with the suffix *-lA-*. The **üil*-postpositions with an inherent ON-function would have become lost, and at the same time the function would have been taken over by *lA*-derivatives – even though such a function has never been attested in the derivational suffix itself. Such a path of development seems already in itself unlikely, and it is made all the more improbable by the fact that the Finnic *l*-cases and the Uralic **üil*-postpositions show striking correspondence in both form and function. If one were to accept the *lA*-theory, this correspondence would have to be interpreted as an odd coincidence.

Also typological arguments favor the *üil*-theory. One should note that local cases with an ON-function are typologically quite rare; usually location on the vertical axis is expressed with adpositions but not with case endings (cf. Blake 2001: 151–154; Levinson 2003: 98–110; Ojutkangas 2005: 529–530). In addition to Finnic languages, in the Uralic family only Hungarian and the Southern Permyak dialects have these kinds of local case forms. As already mentioned, the Southern Permyak case suffixes developed from postpositions, and as regards Hungarian, at least the endings of the sublative and the delative also have a postpositional background (Papp 1968: 154; Kulonen 1993: 84). The ending *-en/-on/-ön* of the superessive case may be an exception, as it has been considered to derive directly from the Proto-Uralic locative suffix **-nA*; but even though this view is commonly accepted, we must

point out that so far no one has presented an explanation to how the originally unmarked local case might have developed a more limited and highly marked ON-function. It may also be noted that probably the closest functional equivalent to the Finnic *l*-cases in Indo-European is the Ossetic adessive in *-yl* (Iron) ~ *-bæl* (Digor) (see, e.g., Thordarson 2009: 153–154). For example, the adessive form *zæxx-yl* [earth-ADE] ‘on the earth’ goes back to the Proto-Indo-European words **(s-)h₁upér(i)* and **dhéǵhōm* (yielding, e.g., Latin *super humum* id.) and it is therefore fully analogous to that of Finnic (e.g., Olonetsian *mua-l* id.) and the newly emerged superessive case in Southern Permyak (*mu-vjn* id. < **mu vjĭn*) discussed in Section 3.6 above. However, we must conclude that the putative development of external local functions from the derivational suffix *-lA* is backed by no well-attested functional parallels in the other Uralic languages, and we are not aware of such parallels in any other languages either.

On the other hand, there is at least one functional argument that could potentially support the traditional *lA*-theory: it is not inconceivable that an oikonym suffix could develop into a local case marker, considering the etymologies of French *chez* ‘at’ and Mainland Scandinavian *hos* id. that go back to Latin *casa* ‘house’ and Scandinavian *hus* id., respectively. Further, it is not impossible that such locatives may later acquire possessive functions (cf. Section 4.2 below): As pointed out by Plank (2015: 81), the locative form *gehi* [house.LOC] of Pāli *geha* ‘house’ has developed – via locative functions – into the new genitive case suffixes *-gē* and *-ge* in Sinhalese and Maldivian, respectively (e.g., South Maldivian *goviyā-ge daruvō* [farmer-GEN children] ‘the children in the farmer’s [house]’ > ‘the children of the farmer’). However, such unheard-of typological parallels to support the received view on the origin of the Finnic *l*-cases do not alleviate the fact that the most original function of the *l*-cases is evidently identical to that of postpositions formed from the Proto-Uralic relational noun root **ül(i)-* ‘place up or above’ and their descendants in a number of modern Uralic languages. It is highly improbable and without typological parallels that oikonym derivatives in *-lA* would have initially superseded the Proto-Uralic **ül(i)-* postpositions in their concrete, highly specialized yet universal functions – presumably also supported by the formally and functionally analogous Proto-Finnic relational noun root **al-* (< Proto-Uralic **il(a)-*) ‘under’.

From the perspective of both linguistic typology and the comparative method it is thus quite natural to assume that the Finnic *l*-cases developed from independent postpositions. This theory is also in accordance with Occam’s Razor, as one can postulate a much less complicated path of development than is necessary in the *lA*-theory. It is not necessary to

postulate any changes in the basic functions of the elements in Proto-Finnic, but only in their form: postpositions have changed into case endings (see Figure 4).

Proto-Uralic	<i>*lumi-n ül-nä polwi-j ül-nä</i>
	‘on the snow on one’s knees’
	↓
Pre-Finnic	<i>*lume-l-na polv-i-l-na</i>
	↓
Finnish	<i>lumella polvilla(an)</i>
cf. South Saami:	<i>lopmen nelnie boelvi nelnie</i>

Figure 4. The marking of the ON-function from Proto-Uralic to modern Finnish according to *ül*-theory.

In the same way, several quite prototypical Finnish *l*-case forms can be explained as directly inherited from Proto-Uralic postpositional phrases (see Figure 5).

Proto-Uralic	<i>*jäñi-n ül-nä</i>	<i>*käti-n ül-nä</i>	<i>*wolka-n ül-nä</i>	<i>*tuli-n ül-nä</i>
	‘on the ice’	‘on one’s hand’	‘on one’s shoulder’	‘on the fire’
	↓	↓	↓	↓
Finnish	<i>jäällä</i>	<i>kädellä</i>	<i>olalla</i>	<i>tulella</i>
cf. North Saami:	<i>jienja alde</i>	<i>gieđa alde</i>	<i>oalggi alde</i>	<i>dola alde</i>
	~ <i>jieñ’al</i>	~ <i>gieđ’al</i>	~ <i>oalgg’al</i>	~ <i>dol’al</i>
	cf. (8), (11)	cf. (1)	cf. (15), (44)	cf. (3), (19)

Figure 5. Some Finnish *l*-case forms that are directly inherited from Proto-Uralic postpositional clauses.

4. On the secondary functions of the *l*-cases

At this point it is useful to examine the origin of the non-local functions of Finnic *l*-cases. We will demonstrate that the development of possessive and instrumental functions in Finnic can be quite naturally accounted for in framework of the *ül*-theory. Even so, the arguments and explanations presented in the following subsections have no real implication to our theory;

regardless of what the actual origin of the *l*-cases is, their possessive and instrumental functions have in any case been practically unanimously considered secondary.

4.1. The instrumental use of the adessive

Especially in the Northern Finnic languages the adessive is used in an instrumental function. In Saami, *al*-phrases very rarely display similar semantics, but instrumental uses are not altogether unattested. Nielsen (1979 s.v. *âl'de*) and Nickel (1994: 168) mention the following example, which Nickel classifies as a metaphorical local phrase:

- (50) *Dán biepmu alde ii eale gal guhká.*
this.GA food.GA alde NEG.3SG live.CNG indeed for.a.long.time
 ‘*Tällä ruoalla ei elä kyllä kauaa.*’
this.ADE food.ADE NEG.3SG live.CNG indeed long.time.PTV
 ‘One won’t survive long **on this food** for sure.’ (Nickel 1994: 168)

As pointed out by Ylikoski (2006: 44–45), these kinds of *alde*-phrases can be used interchangeably with comitative case forms, which are the most common way to express instrumentality in North Saami: cf. *Dáinna biepmuin* [this.COM food.COM] *ii eale gal guhká*. One can also find other types of examples where the functions of an *al*-phrase and a comitative form come close to each other: e.g., a thing on which someone or something is carried is usually simultaneously also an instrument for carrying, and in such a context it essentially irrelevant which form is used; a postpositional phrase (51a) and a comitative form (52a) are practically in a free variation with each other. It is worth noting that in the corresponding Lule Saami text the postpositional phrase (52b) and the comitative form (52b) are used in exactly opposite to North Saami:

(Luke 5:18)

- (51) a. *Muhtun olbmát gudde dohko lámis olbmá guoddinseangga*
 some man.PL carry.PST.3PL there lame man.GA **carrying.bed.GA**
alde. (OT)
alde
 b. *De báhhtin soabmása guoddemlátjujn gállnam*
 then come.PST.3PL some.PL **carrying.bed.COM** be.paralyzed.PST.PTCP

ålmmáv guotte [– –] (ÅT)

man.ACC carry.CVB

- c. *Paikalle tuli miehiä, jotka kantoivat vuoteella*
 place.ALL come.PST.3SG man.PL.PTV which.PL carry.PST.3PL **bed.ADE**
halvaantunutta. (Raamattu)
 be.paralyzed.PST.PTCP.PTV

‘Some men came carrying a paralytic **on a stretcher** [– –]’

(Mark 6:55)

- (52) a. [– –] *ja doapmaledje buot siidaguimmiid mielde ja*
 and hurry.PST.3PL all neighbor.PL.GA with and
guoddigohte buhcciid guoddinseanggaiguin dohko gos
 carry.INCH.PST.3PL sick.PL.GA **carrying.bed.PL.COM** there where
gulle su leamen. (OT)
 hear.PST.3PL 3SG.GA be.PROG
- b. [– –] *ja gáhtjadin ábbå bájke skihppij lusi ja*
 and hurry.PST.3PL whole place.GEN sick.person.PL.GEN to and
de sijájt guoddin látjoj nanna dâhku, gânnâ
 then 3PL.ACC carry.PST.3PL **bed.PL.GEN nanna** there where
gullin sâñ lij. (ÅT)
 hear.PST.3PL 3SG be.PST.3SG
- c. *Sairaita alettiin kantaa vuoteillaan sinne, missä*
 sick.PL.PTV begin.PST.PASS carry.INF **bed.PL.ADE.3PL** there where
Jeesuksen kuultiin olevan. (Raamattu)
 Jesus.GEN hear.PST.PASS be.INF

‘They ran throughout that whole region and carried the sick **on stretchers** to wherever they heard he [Jesus] was.’

While North Saami *guoddinseangga alde* ‘on a stretcher’ (51a) is literally a local adverbial phrase, and *guoddinseanggaiguin* ‘with stretchers’ (52a), in turn, an instrumental adverbial phrase, it is neither possible nor even necessary to determine whether *vuoteella* and *vuoteilla* in the corresponding Finnish passages have a local or an instrumental function, or even both.

As already seen in (50), *alde*-phrases occasionally occur also as more clearly non-local instrumental function. In our research material this can be seen in certain fixed phrases and idioms, such as the following (for more detailed discussion, see Ylikoski 2006: 44–45):

- (53) *Ieš-Pieti čuovvolii árrat leastadialaš oskku ja šattai*
 Ieš-Pieti begin.following.PST.3SG early Laestadian faith.GA and become.PST.3SG
dovddus sárdnideaddjin guhte iežas burssa nalde finai
 famous preacher.ESS which REFL.GA.3SG wallet.GA *alde* go.PST.3SG
sárdnemátkkiin Suomas ja Norrgas.
 preaching.tour.PL.LOC Finland.LOC and Norway.LOC
 ‘*Ies-Pieti rupesi varhain seuraamaan lestadiolaista uskoa ja*
 Ies-Pieti begin.PST.3SG early follow.INF Laestadian.PTV faith.PTV and
hänestä tuli tunnettu saarnaaja, joka omalla kukkarollaan
 3SG.ELA come.PST.3SG famous preacher who own.ADE purse.ADE.3SG
kävi saarnamatkoilla Suomessa ja Norjassa.’
 go.PST.3SG preaching.tour.PL.ADE Finland.INE and Norway.INE
 ‘Ieš-Pieti converted to Laestadianism at an early stage and he became a famous
 preacher who made preaching tours to Finland and Norway at his own cost (“**on his
 own purse**”).’ (Kristiansen 2004b: 39)

More straightforward correspondents to the instrumental use of the adessive can be found in other Uralic languages, viz. in Mordvin. The Uralic **ül*-postpositions have not been preserved in Mordvin in their original local functions; they have been replaced with new postpositions formed from a relational noun root *lang-*, which is of obscure origin (Saarinen 2005). Nevertheless, the original Uralic separative form **ül-tä* is reflected in the Mordvin postposition *vel'de* (Erzya), *vel'dä* (Moksha), which has a primarily instrumental function. The following examples which derive from Paasonen’s *Mordwinisches wörterbuch* (MW s.v. *vel'de*) show that the function of *vel'de* is in many ways similar to the instrumental adessives (the examples have been converted into a phonological transcription):

- (54) *pi'gesur vel'd'e jakams* (Cf. (7).)
 toe *vel'd'e* go.INF
 ‘*kulkea varpailaan*’
 go.INF toe.PL.ADE.3SG
 ‘walk on one’s toes’

- (55) *mon piks vel'd'e valgin*
 1SG **rope vel'd'e** descend.PST.1SG
 ‘*laskeuduin köydellä (/köyttä pitkin)*’
 descend.PST.1SG **rope.ADE** (/rope.PTV along)’
 ‘I descended along a rope.’

- (56) *mel' vel'd'e*
mind vel'd'e
 ‘*mielellään*’
mind.ADE.3SG
 ‘gladly; with pleasure’

- (57) *mon ramavtija sonze vel'd'e*
 1SG buy.CAUS.1SG>3SG **3SG.GEN vel'd'e**
 ‘*ostatin sen hänellä*’
 buy.CAUS.PST.1SG it.GEN **3SG.ADE**
 ‘I made him buy it.’

Example (57) is especially remarkable, as it employs *vel'd'e* as an agent marker in connection with a causative verb. Also the Finnish adessive case has developed the same function. In general, the Mordvin examples listed above can be compared to Leino’s (1989: 211) entirely synchronic description of the use of the adessive case in Finnish: “Ei ole vaikea konstruoida esimerkkisarjaa puhtaasti spatiaalisesta adessiivin käytöstä instrumentaalisen ja jopa toisen asteen agenttia osoittavaan [– –]” (‘It is not difficult to construct a series of examples from a purely local use of the adessive to the instrumental and even to one expressing a second-level agent’). As an example of such a continuum he gives the following set of sentences:

- (58) a. *Pekka kuljetti lautalla Paavon saaresta.*
 Pekka transport.PST.3SG **raft.ADE** Paavo.GEN island.ELA
 ‘Pekka took Paavo off the island **on a raft.**’
 b. *Pekka kuljetti veneellä Paavon saaresta.*
 Pekka transport.PST.3SG **boat.ADE** Paavo.GEN island.ELA
 ‘Pekka took Paavo off the island **on/with a boat.**’

- c. *Pekka ajoi reellä tukit metsästä.*
 Pekka drive.PST.3SG **sled.ADE** timber.PL forest.ELA
 ‘Pekka transported the timbers out of the woods **on/with a sled.**’
- d. *Pekka ajoi hevosella tukit metsästä.*
 Pekka drive.PST.3SG **horse.ADE** timber.PL forest.ELA
 ‘Pekka transported the timbers out of the woods **with a horse.**’
- e. *Pekka ajatti Paavolla tukit metsästä.*
 Pekka drive.CAUS.PST.3SG **Paavo.ADE** timber.PL forest.ELA
 ‘Pekka made **Paavo** transport the timbers out of the woods.’ (cf. (57): *ramavtija sonze vel'de.*)

The usage of the Mordvin postposition *vel'de* corresponds quite well to that of the Finnish adessive. Thus, the Mordvin examples offer good parallels for the development of instrumental and even agent functions in the Finnish adessive case. One should mention, though, that there is a slight morphological discrepancy: Mordvin *vel'de* reflects the Uralic ablative case (**ül-tä*) and not the locative case (**ül-nä*) like the Finnish adessive. This distinction is not too great, though, as also the ablative case has limited instrumental use in Finnic languages: cf. e.g. dialectal Finnish *väkiseltään* ‘by force’ (*väki* ‘crowd; strength’) and Estonian *vaevalt* ‘with difficulty’ (*vaev* ‘difficulty’). On the other hand, one could also surmise that the Mordvin form *vel'de* has some kind of irregular background; for example, the Uralic **j̄l-* ‘under’ word family has given in Mordvin – in addition to the postpositions *alo* ‘under.LOC’, *aldo* ‘under.ABL’ and *alov ~ alon* ‘under.LAT’ – the derivative *aldoń* ‘located under / below [adjective]’ (Niemi & Mosin 1995 s.v.), even though the expected form would be **aloń* instead.²⁴

4.2. The possessive use of the *l*-cases

Possessive functions are one of the core functions of the *l*-cases in Finnic. As noted above in 3.2.1, *l*-cases are not used in a local function with nouns or pronouns with human referents, because in such cases their use is restricted to possessive functions. The complementary distribution of local and possessive functions can be illustrated with the following examples:

²⁴ Note that there is a homonymous *aloń*, which is both a genitive form and an adjective derivative of the word *al* ‘egg’.

- (59) a. *Kirja on pöydällä.*
 book be.3SG **table.ADE**
 ‘The book is **on the table.**’
- b. *Otin kirjan pöydältä.*
 take.PST.1SG book.GEN **table.ABL**
 ‘I took the book **off the table.**’
- c. *Panin kirjan pöydälle.*
 put.PST.1SG book.GEN **table.ALL**
 ‘I put the book **on the table.**’
- (60) a. *Minulla on kirja.*
1SG.ADE be.3SG book
 ‘I have a book.’
- b. *Ota kirja minulta.*
 take.IMP.2SG book **1SG.ABL**
 ‘Take the book **from me.**’
- c. *Anna kirja minulle.*
 give.IMP.2SG book **1SG.ALL**
 ‘Give the book **to me.**’

Even though the *al*-postpositions in Saami are generally not used in possessive functions, there are nevertheless borderline cases that give some idea as to how the possessive functions might have developed in Finnic. Especially the postposition *ala* is sometimes used in a dative-like function, as in the following examples:

- (61) *Dat mainna in leat duhtavaš lea, ahte eanaš*
 it what.COM NEG.1SG be.INF satisfied be.3SG COMP most
ovddasvástádus gahččá moatti olbmo ala Kárášjogas.
 responsibility fall.3SG **few.GA** **person.GA** **ala** Kárášjohka.LOC
 ‘Se, mihin en ole tyytyväinen on, että enin vastuu
 it what.ILL NEG.1SG be.CNG satisfied be.3SG COMP most responsibility
lankeaa muutamalle ihmiselle Kaarasjoella.’
 fall.3SG **few.ALL** **person.ALL** Kárášjohka.ADE

‘What I’m not satisfied with is that most of the responsibility falls **on a couple of people** in Kárášjohka.’ (MÁ 1995)

(62) [– –] *Mathis M. Sara fas oaivvildii stáhta bidjat olu barggu*
 Mathis M. Sara in.turn mean.PST.3SG state put.INF much work.GA
orohagaid ala.

herding.district.PL.GA ala

‘*Mathis M. Sara taas oli sitä mieltä, että valtio laittaa*
 Mathis M. Sara in.turn be.PST.3SG it.PTV mind.PTV COMP state put.3SG
paljon työtä paliskunnille.’

much work.PTV **herding.district.PL.ALL**

‘Mathis M. Sara, in turn, was in the opinion that the state puts much work **on the reindeer herding districts.**’ (MÁ 1995)

(Acts 1:26)

(63) *Sii vuorbádedje dan guoktása gaskkas, ja vuorbi gahčai*
 they cast.lots.PST.3PL it.GA two.people.GA between and lot fall.3SG.PST
Mattiasa ala. (OT)²⁵

Matthias.GA ala

‘*Sen jälkeen he heittivät miehistä arpaa, ja arpa lankesi*
 it.GEN after 3PL throw.PST.3PL man.PL.ELA lot.PTV and lot fall.PST.3SG
Mattiakselle.’ (Raamattu)

Mattias.ALL

‘Then they cast lots, and the lot fell **to Matthias.**’

²⁵ One can note that in the Greek original of the New Testament this passage contains the primarily local preposition *epi*, which has also been translated into Udmurt as *vile*:

(ii) [– –] *και επεσεν ο κληρος επι Μαθθιαν* [– –] (NTGr.)
 and fall.AOR.3SG DEF.SG.M lot on Matthias.M.ACC

(iii) *Pussj Matfij vile ušem.* (VS)
 lot Matthias on.ILL fall.PST2.3SG

It is also worth noting that in many Saami languages the reflexive pronoun shows a supplementary paradigm, where the local case forms diachronically reflect possessive forms of the words *alde* and *ala*. This is the case in North Saami as well, as can be seen from the following partial paradigm of the reflexive pronoun *ieš*:

NOM	SG	<i>ieš</i>
GEN	1SG	<i>iežan</i>
	2SG	<i>iežat</i>
	3SG	<i>iežas</i>
LOC	1SG	<i>alddán</i>
	2SG	<i>alddát</i>
	3SG	<i>alddis</i>
ILL	1SG	<i>alccen</i>
	2SG	<i>alccet</i>
	3SG	<i>alcces</i>

In the paradigm above, the locative forms are diachronically nothing other than the postposition *alde* ‘on’ combined with possessive suffixes; hence, the use of a form such as *alddán* REFL.LOC.1SG has developed from the sense of ‘on me’. The background of the illative forms is morphologically somewhat more complex: a form such as *alccen* derives through an irregular phonological development from earlier **alla-sa-n*, with the same postpositional root but a secondary possessive illative suffix *-sa-* preceding the possessive suffix. In the dialects one even finds forms such as *alcce-sa-n*, with yet another secondary illative suffix added. Semantically, though, the background of the illative forms is wholly analogous to the locative forms: *alccen* ‘to myself’ developed its current function from an original meaning ‘onto me’.

The local case forms of the reflexive pronoun are used precisely in possessive functions, as the following examples reveal:

- (64) *Ja juos alddiineaset ii leat ruhta, de stáhtta=han gal*
 and if REFL.LOC.3PL NEG.3SG be.CNG money then state=for.sure indeed
sidjiide addá.
 3PL.ILL give.3SG
 ‘*Ja jos heillä itsellään ei ole rahaa, niin*
 and if 3PL.ADE REFL.ADE.3PL NEG.3SG be.CNG money.PTV then

valtio=han kyllä heille antaa.'

state=for.sure indeed 3PL.ALL give.3SG

'And if **they** have no money **themselves**, the state will give them for sure.' (Marastat 1991: 19)

(John 7: 17)

(65) *Dat guhte dáhttu dahkat su dáhtu, oažžu dovdat lea=go*
3SG who want.3SG do.INF 3SG.GA will.GA get.3SG feel.INF be.3SG=Q

oahppu Ipmilis vai mus alddán.

teaching God.LOC or 1SG.LOC REFL.LOC.1SG

'*Hän, joka tahtoo tehdä hänen tahtonsa, saa tuntea, on=ko*

3SG who want.3SG do.INF 3SG.GEN will.GEN.3SG get.3SG feel.INF be.3SG=Q

opetus Jumalasta vai minulta itseltäni.'

teaching God.ELA or 1SG.ABL REFL.ABL.1SG

'If anyone wants to do God's will, he will get to know whether the teaching is from God or from **me myself**.' (OT)

(11) *Mánát ieža goivo alcceseaset jieŋa ala skeittánsaji.*

child.PL REFL.PL dig.PST.3PL REFL.ILL.3PL ice.GA ala skating.place.GA

'*Lapset itse kaivoivat itselleen jäälle luistelupaikan.*'

child.PL REFL dig.PST.3PL REFL.ALL.3PL ice.ADE skating.place.GEN

'The children themselves dug a skating place **for themselves** on the ice.' (MÁ 1995)

The following dialectal example involving the reflexive pronoun, documented by Friis (1856: 69), comes especially close to the possessive use of the *l*-cases in Finnic; the phrase *ješ aldam* consists diachronically of the same morphemes as the Finnish *l*-case form *itselläni*:

(66) *ješ aldam læ girje*

REFL REFL.LOC.1SG be.3SG book

'*Minulla itselläni on kirja.*'

1SG.ADE REFL.ADE.1SG be.3SG book

'**I myself** have a book.' (Friis 1856: 69: 'jeg selv har en Bog')

The attested – albeit very limited – possessive use of the Saami *al*-postpositions shows that it is by no means unnatural that the grammaticalized *ül*-postpositions have developed possessive functions in Finnic. In addition one can note that the development of local functions to possessive ones is cross-linguistically quite common. For instance, the Russian preposition *u* ‘at’ is also used in possessive constructions: e.g. *u menja jest kniga* [at 1SG.GEN be.3SG book] ‘I have a book’ (“there is a book at me”). In most Saami languages, possession is indicated with the primarily local inessive or locative case: e.g. North Saami *mus lea girji* [1SG.LOC be.3SG book] ‘I have a book’. The starting point of such development can be seen in e.g. the Siberian language Kolyma Yukaghir, where the locative case suffix *-ge* is sometimes used metaphorically in constructions resembling grammatical possession, even though usually possession is indicated in other ways (Maslova 2003: 107, 447–448):

- (67) *šoromo-ge qojl ninge-j*
 man-LOC god many-INTR.3SG
 ‘Man has many gods.’ (Maslova 2003: 107)

In this connection we can briefly return to the possessive *l*-cases in Mari and Permic languages, which were already discussed earlier. Mari has a dative case with the suffix *-lan* (in West Mari *-lan / -län*), and the easternmost dialects of the language also have an ablative case with the suffix *-leč* (Alhoniemi 1985: 44, 52–54, 61–62). The Permic languages, in turn, have developed a series of three possessive cases, consisting morphologically of the coaffix *-l-* followed by a primary local case suffix: the genitive (Komi *-lən*, Udmurt *-len*), the ablative (Komi *-ljš*, Udmurt *-leš*) and the dative (*-lij* in both languages). In the framework of the *lA*-theory the Finnic, Mari and Permic *l*-cases have been seen the result of convergent development, but in all languages the cases would ultimately have their origin in the “local” derivational suffix **-lA*. The *ül*-theory, however, implies that the Finnic and the Mari-Permic *l*-cases cannot have a common background: the Mari and Permic *l*-cases could not have developed from **ül*-postpositions, because these postpositions have been retained as independent words in these languages. Moreover, such an idea would also involve major semantic difficulties, as the Mari-Permic *l*-cases are almost exclusively possessive, and they do not show any trace whatsoever of an earlier ON-function that is inherent in *ül*-postpositions and the Finnic *l*-cases.

Sometimes it has even been surmised that the possessive function of the Finnic *l*-cases would be primary, and they could thus be historically connected with the Mari-Permic *l*-cases.

Anttila and Uotila (1984: 127) maintain that possessive use could have developed via reanalysis of oikonym derivatives based on the suffix **-lA*, as follows: **setä-lä-nä on peltoja* ‘uncle’s house has fields’ >> Finnish *sedällä on peltoja* ‘uncle has fields’ (cf. Finnish *setälä* ‘uncle’s house’ ← *setä* ‘uncle’). This suggestion is already made highly unlikely by the fact that the oikonym derivatives in *-lA* have a marginal status and low frequency in the language, and if such a path of development is assumed, it becomes very difficult to understand how the concrete function of ‘location on the upper surface’ could have developed from much more abstract possessive use. Both historically and typologically it is more natural to assume that the primary function of Finnic *l*-cases is local, and that the possessive functions have developed from metaphoric use of this local function and not from the reanalysis constructions involving oikonym derivatives.

In fact, the *ül*-theory reveals that the previous idea of a connection between Finnic and Mari-Permic *l*-cases – either as cognate forms or as the result of convergent development of the derivational suffix *-lA* – is based on circular reasoning. This becomes evident from the arguments that Bartens has presented in support of the equation of the Finnic and Permic *l*-case forms (cf. (59–60)):

Ulkopaikallisuuden ilmoittaminen (esim. *kirja on pöydällä, panin kirjan pöydälle, otin kirjan pöydältä*) ei kuitenkaan ilmeisesti ole ainakaan vanhempi funktio kuin itämerensuomen *l*-sijojen habitiviset ja dativiset funktiot (*minulla on kirja, anna kirja minulle, ota kirja minulta*). Sukukielissä nimittäin ulkopaikallisuus ilmaistaan tyypillisesti postpositiorakenteilla (esim. komi *kñigays pyzan vylын* ‘kirja on pöydällä’, *pukti kñigasö pyzan vylö* ‘panin kirjan pöydälle’, *bošti kñigasö pyzan vylыs* ‘otin kirjan pöydältä’), ja on mahdollista olettaa, että alkuperäistä on juuri postpositiorakenteiden käyttö tässä funktiossa. (Bartens 2000: 83.)

‘The expression of external locality (e.g., *kirja on pöydällä, panin kirjan pöydälle, otin kirjan pöydältä*) is, nevertheless, apparently not at least an older function than the possessive and dative functions of the *l*-cases (*minulla on kirja, anna kirja minulle, ota kirja minulta*) [cf. (59–60)]. In related languages external locality is typically expressed with pospositional constructions (e.g. Komi *kñigays pyzan vylын* ‘the book is on the table’, *pukti kñigasö pyzan vylö* ‘I put the book on the table’, *bošti kñigasö pyzan vylыs* ‘I took the book off the table’), and it is possible to assume that exactly the use of postpositions is original in this function.’

As one considers the issue from the perspective of the *ül*-theory, the latter sentence in the quote above contradicts the first one. Bartens is quite right in noting that the use of the Permic *vil*-postpositions (and their cognates) to express external locality represents the historically primary construction type. Nevertheless, even internal reconstruction confirms that the

expression of external locality is the primary function of the Finnic *l*-cases (see 3.1); Bartens denies this, but apparently only because she considers it to contradict the evidence from Permian and other related languages. But there is no contradiction whatsoever when the Permian *vjl*-postpositions are properly analyzed as **cognates** of the Finnic *l*-case endings.

Thus, there remain no valid arguments for connecting the primarily local *l*-cases in Finnic with the possessive *l*-cases in Permian. Indeed, such an equation is methodologically dubious in the first place: the compared morphemes possess merely one matching phonological segment (the consonant *-l-*) and a one similar function (possessive use), which can be quite clearly shown as secondary in Finnic. It becomes dangerously easy to find accidental matches for grammatical morphemes of the shape **-C-* if cognates are sought over a broad semantic spectrum. For example, in the Kolyma Yukaghir language (already mentioned above in Section 4.2) there is an instrumental case with the suffix *-le* (Maslova 2003: 77–78; 104–105), and it would be methodologically wholly analogous to connect this with the Finnic *l*-cases: there is one identical segment (the phoneme *-l-*) and one similar function (instrumental), which can be shown to be secondary in Finnic. One should note that chance resemblances of this kind can as easily come up between languages that are genetically related, not only between languages belonging to separate families like Finnish and Yukaghir.²⁶

The origin of the Mari and Permian *l*-cases remains unexplained, though; equating them with the derivational suffix *-lA* is not based on any more solid evidence than that of the Finnic *l*-cases, as pointed out by Serebrennikov (1962; 1963). Even though the question cannot be scrutinized in detail here, we can suggest a new hypothesis. As mentioned above, the development of possessive functions from earlier local functions is typologically natural, and hence one could surmise that also the Mari-Permian *l*-cases may derive from some kind of postpositions with local functions. A candidate for such a source would be the postpositional root reflected in North Saami *lu-*, Finnish *luo-* ‘at’: cf. Finnish *luona* ‘at, in the vicinity of’, *luota* ‘from (the vicinity of)’, *luo* ~ *luokse* ‘to (the vicinity of)’. No cognates for this root are known outside Finnic and Saami, but it is not at all impossible that its cognate is hiding in an agglutinated form in the Mari and Permian *l*-cases – it is, in fact, necessary to assume that if

²⁶ It is sometimes maintained that Yukaghir languages are related to Uralic (e.g. Nykolajeva 2000: 92–102; cf. also Nikolaeva 2006: viii & passim), but no plausible arguments for this view have ever been presented (see Aikio 2014 for discussion); and even if one subscribed to the idea of a Uralic-Yukaghir affinity, there would of course be no reason to assume a historical connection between the Finnic *l*-cases and the Yukaghir instrumental case.

these cases reflect earlier postpositions, the original postpositions underlying them have not been retained as independent words (cf 3.5). In other words, the Mari and Permic *l*-cases cannot derive from the Uralic **ül*-postpositions, as these postpositions were retained as independent words in these languages.

As regards the semantics of the Mari-Permic *l*-cases, their development could be compared, e.g., to the Russian postposition *у* which was discussed earlier. A particularly illuminating point of comparison is offered by the ‘at’-series of local case in Veps, which developed through the agglutination of postpositions based on the root *lo-*, the cognate of Finnish *luo-*. The semantics of these cases is predominantly local, but sometimes their usage comes close to possessive functions:

(68) *kaži goļu minu-лон, mejd'e-лон*

cat always 1SG.APPR1 1PL.APPR1

‘The cat is always at me, at us.’ (Kettunen 1943: 369)

As also the Mordvin and Hungarian dative cases have similar postpositional backgrounds (see Bartens 1999: 79; Honti 2006; Ylikoski 2011), the development of local postpositions to possessive case endings seems to be relatively common process in the Uralic languages. Nevertheless, the explanation proposed for the Mari and Permic *l*-cases above is at this point naturally still a mere hypothesis which requires more thorough scrutiny.

5. What is left of the *lA*-theory?

Even though the *ül*-theory offers a convincing explanation of the origin of the *l*-cases, the earlier *lA*-theory nevertheless includes some findings that can be incorporated in our new model. In addition to Finnic many other Uralic languages, too, possess derivatives based on a semantically indeterminate local suffix **-lA* or **-l(V)*. These kinds of derivatives are usually formed from either a relational noun root or a monosyllabic pronoun root followed by a coaffix. In this way, combinations of the suffix **-lA* and (local) case endings are used to form various adverbs, as in the following North Saami examples:

- a) pronoun root + coaffix **-mpA-* + suffix **-lA-* + local case ending: e.g., *dábbelis* ‘closer to over here’ (< Proto-Saami **tā-mpē-lē-snē* [this-*mpA-lA-INE*]), *dá-ppi-l* ‘from this direction’ (< Proto-Saami **tā-mpē-l-tē* [this-*mpA-lA-ABL*]).
- b) relational noun root + suffix **-lA-* + local case ending: e.g., *badje-l-is* ‘farther up, higher above’ (< Proto-Saami **pejē-lē-snē* [above-*lA-INE*]), *baji-l* ‘from above’ (< Proto-Saami **pejē-l-tē* [above-*lA-ABL*])

Similar adverbs are found in many other Uralic languages as well. As these kinds of forms can be reconstructed on the basis of languages related to Finnic, it is rather obvious that similar formations must have also existed in Pre-Finnic at the time when *ül*-postpositions became grammaticalized as case endings. During this suffixation process the endings of such adverbs coincided with the newly emerged *l*-case endings. In spite of this merger, one can still show that there are certain Finnic adverbs where a synchronic *l*-case ending probably does not diachronically reflect an earlier *ül*-postposition, but a derivative in **-lA* instead.

Finnic languages have adverbs in which a locative or separative case ending has been added to a stem consisting of a pronoun root followed by a coaffix *-kA-* and the ‘local’ suffix **-l(A)-*: e.g. *täällä* ‘(being) here’, *täältä* ‘from here’ (< **tä-kä-l-nä*, **tä-kä-l-tä*), *siellä* ‘(being) there’, *sieltä* ‘from there’ (< **si-kä-l-nä*, **si-kä-l-tä*), *muualla* ‘somewhere else, in another place’, *muualta* ‘from somewhere else, from another place’ (< **mū-ka-l-na*, **mū-ka-l-ta*). The same suffixal combination **-kA-lA-* is found in derivatives with the suffix *-inen* (e.g., *täkäläinen* ‘a person from here’, *sikäläinen* ‘a person from there’, *muukalainen* ‘stranger’) and in such adverbs as *mikäli* ‘if, in the case that’ and *sikäli* ‘as far as, in that respect’, which have originally had a prolativ meaning: *mikäli* *‘through what’ and *sikäli* *‘through it, that way’ (Virtaranta 1962). Also series of postpositions and adverbs that have been formed from relational noun roots with *l*-case endings are common: e.g., *sisällä* ‘(being) in’, *sisältä* ‘(coming) out from (the inside)’, *sisälle* ‘(going) in’; *edellä* ‘(being) ahead’, *edeltä* ‘(coming) from ahead’, *edelle* ‘(going) ahead’; *lähellä* ‘(being) near’, *läheltä* ‘(coming) from near(by)’, *lähelle* ‘(going) near (to)’.

The existence of these kinds of derivatives has frequently been thought to support the *lA*-theory (see Section 2). It is, indeed, quite probable that many of them contain the Uralic local derivational suffix **-lA*, and in some cases the derived stem even has potential cognates outside Finnic: behind the series *lähellä*, *läheltä*, *lähelle* one can postulate the derived stem **lähe-l(ä)-* ‘place nearby’, which may be historically identical to Mari *lišə-l* ‘near (ADJ)’.

Alhoniemi, for instance, has brought up the Mari derivatives with the suffix *-l* as an argument supporting the *lA*-theory:

Die [Tscheremissische] Stämme, an die das Ableitungssuffix **-l(V)* tritt, drücken durchweg ein spatiales Verhältnis aus, ‘unter, auf, nahe, fern, neben, usw.’. Das an diese Worte tretende Suffix **-l(V)* brauchte also nicht mehr die Lokalität auszudrücken, sondern es konnte ‘die Zugehörigkeit zu der durch das Stammwort ausgedrückten Lokalität od. etwas daran Anschließendes’ ausdrücken. Da jedoch dieses spatiale Verhältnis in diesen Ausdrücken speziell eine äußere Lokalität ist, blieb die Bedeutung des Äußeren natürlich bei den **lV*-Ableitungen und deren Flexionsformen erhalten. Im Bewußtsein verknüpfte sich diese Bedeutung auch mit dem Ableitungssuffix **-lV*. Als sich aus diesen Ausdrücken des Äußeren dann die zusammengesetzten Kasusendungen mit *-l* zu entwickeln begannen, war es natürlich, daß sie speziell die Bedeutung der äußeren Lokalität oder Habitivität erhielten, wie es einerseits im Ostseefinnischen, andererseits im Tscheremissischen und Permischen geschehen ist. (Alhoniemi 2001: 109)

‘The [Mari] stems which the derivational suffix **-l(V)* attaches to express essentially a spatial relationship, ‘under, on, near, far, beside, etc.’. The suffix **-l(V)* that appears in these words did not need to express locality any longer, but it could express ‘the affiliation to the locality expressed by the root word or something connected to it’. Since, however, the spatial relationship in these expressions is particularly an external location, the meaning of the exterior was naturally obtained by the derivatives in **lV* and their inflectional forms. In the [speakers’] consciousness this meaning became also attached to the derivational suffix **-lV*. As the compounded case endings with *-l* began to develop from these expressions of the exterior, it is natural that they retained particularly the sense of exterior locality and possession, as it happened in Finnic on the one hand, and in Mari and Permian on the other.’

This argumentation is quite impressionistic, however: even though semantic similarities are pointed out, there is no real attempt to explain how a morpheme that supposedly signified something as vague as “the affiliation to the locality expressed by the root word or something connected to it” would have developed the actually attested local functions of the Finnic *l*-cases. It is far from obvious what such an explanation could be, as the concrete sense of ‘location on the upper surface’ can be established as the core and primary function of these cases within Finnic (see 3.1). It is true that derivatives consisting of a relational noun root and a suffix **-l(A)* can to some extent be reconstructed on the basis of correspondences such as Finnic **lähe-l-* ~ Mari *lišə-l-*, but nevertheless, such derivatives do not offer any clear evidence of the origin of the *l*-cases. The semantics of such formations of relational noun roots often do not agree with the specific sense of ‘location on the upper surface’, or even the more general sense of ‘external locality’. This is particularly obvious in the case of Finnish

sisällä ~ Livonian *sizāl* ‘(being) in’, Finnish *sisältä* ‘(coming) out from (the inside)’, Finnish *sisälle* ~ Livonian *sil’lō* ‘(going) in’.

One can add that if such archaic sets of derivatives really represented the diachronic source of the Finnic *l*-cases, it would be quite odd that precisely in these sets one encounters a great deal of morphological variation and inconsistency. For instance, in modern Finnish the *l*-case form *sisälle* ‘(going) in’ is more or less in free variation with *sisään* ‘(going) in’, which shows *s*-case morphology instead. The situation with adverbs based on pronoun roots is even more irregular: the directional forms in these series usually show an entirely different suffix **-nnek*: e.g., *tänne* ‘(coming) here’, *sinne* ‘(going) there’ instead of expected **täälle*, **sielle* (< **tä-kä-llen*, **si-kä-llen*). The directional form of *muu-* ‘other’ has *l*-case morphology in modern standard Finnish (*muualla* ‘(going) somewhere else’), but the form *muuante* (< **mū-ka-nnek*) is attested in dialects. The origin of the ending **-nnek* is unclear, but in any case the morphological irregularity of series of the type *tää-llä*, *tää-ltä*, *tä-nne* is inconsistent with the idea that these series represent the source of *l*-case endings. It should be noted, however, that this by no means excludes the possibility that such series may have exerted some secondary influence on the development of these case forms; as both the mentioned adverbs and the nominal *l*-cases have coexisted in Finnic from its earliest stages on, they have probably affected each other ever since in ways that call for further research.

In general one can say that the connection between the derivational suffix **-la* and adverbs of the type *täällä* ‘here’ and *lähellä* ‘near’ offers no counterargument for the *ül*-theory. Assuming that *l*-cases developed through agglutination of original postpositions, it is only predictable that the newly emerged case endings coincided with various adverb endings which originally contained the suffix **-la*. In this connection, especially the postpositional series *päällä* ‘on.LOC’, *päältä* ‘on.ABL’ and *päälle* ‘on.LAT’ is worth noting (cf. 3.2.1). These postpositions have traditionally been interpreted simply as *l*-case forms of the noun *pää* ‘head; end’ (SSA s.v. *pää*; Häkkinen 2004 s.v. *päällikkö*), which in turn goes back to Proto-Uralic **päji* (Sammallahti 1988: 548).

One can hypothesize, however, that also the *päällä* series could reflect an *l*-derivative, because the same element *-l(l)-* is also found in the prolative form *päällitse* ‘over’ and in derivatives such as *pääl(l)ys* ‘coating, cover(ing)’, *pääl(l)inen* id., *pääl(l)immäinen* ‘topmost, uppermost’, and *pääl(l)ikkö* ‘head, chief’. Many such derivatives have a wide distribution in Finnic languages and can be reconstructed for Proto-Finnic already: cf. Veps *päliči* ‘over’, *päluz* ‘coating, cover(ing)’, *päline* id., *pälembaine* ‘topmost, uppermost’, and Estonian *pealis* ‘coating, cover(ing)’, *päeline* ‘id.; cream’, *pealmine* ‘topmost, uppermost’ (SSA s.v. *päällä*).

If *päällä* etc. really originally were *l*-case forms of *pää* ‘head; end’, one would have to think that the *-l-* in the case endings would have become analogically reinterpreted as a part of the stem in Proto-Finnic already, and then spread to derivatives. No clear parallels for such an analogical change seem to be found, however. Instead, it is worth noting that derivatives in *-la* such as **sikälä-* ‘place there’ and **täkälä-* ‘place here’ have corresponding prolative forms with *-l-*, especially in Karelian, Lude and Veps: e.g. Karelian *mikälittši* ‘by what’, *sikälittši* ‘by it’, *täkälittši* ‘by this’ (Suoniemi-Taipale 1994: 134–135, 154–155, 161). Cognate forms are attested even in Finnish, albeit marginally (see also Virtaranta 1962: 647–649):

- (69) *Oli=pa vauhtia. Tämä minun kansakoulukaverini*
 be.PST.3SG=DPT speed.PTV this 1SG.GEN elementary.school.mate.1SG
oli sikälitse eri maata, että hän puki
 be.PST.3SG insofar different country.PTV COMP 3SG dress.PST.3SG
samalla päälleen toiset housut. - Tosin ei yhtä
 at.the.same.time *päälle*.3SG another.PL trousers.PL to.be.sure NEG.3SG as
nopeasti. :)
 fast.ADV

‘Well, that was fast. This classmate of mine from the elementary school was different in the sense that he put on another pair of trousers at the same time. – Not that fast, though. :)’ (<http://keskustelu.suomi24.fi> 14.7.2006)

It is also interesting to note that the postpositions and adverbs in *pääl(l)-* rather closely resemble Saami adverbs and postpositions built from the Proto-Saami root **pejē-* with the coaffix **-l-*: cf., e.g., North Saami *bajil* ‘from above’, *badjel* ‘over’, *badjelis* ‘higher up, higher above (LOC)’, *badjelii* ‘higher up, higher above (ILL)’. These Finnish and Saami word families were etymologically equated by Rask (1832: 37–38; see also Section 2), but in modern etymological references the comparison is rejected due to irregular sound correspondences. The Proto-Saami form can be reconstructed as **pejē-l(ē)-*, which would presuppose a Finnic cognate of the shape **pi(j)äl-* or **pü(j)äl-*, not **pääl-*. In spite of this irregularity, the similarity is rather striking, and it is tempting to assume that there could be a historical connection between the two forms after all. The idea receives some support from the fact that there are derivatives which are widespread in both Finnic and Saami, and which share identical or similar morphology, as shown in Table 12.

Finnic languages	Saami languages
Finnish <i>päällys</i> , Veps <i>päluz</i> , Estonian <i>pealis</i> ‘coating, cover(ing)’	North Saami <i>bajildus</i> , South Saami <i>bijeldasse</i> , Skolt Saami <i>pââi ‘ldōs</i> ‘coating, cover(ing)’
Finnic <i>päällekkäin</i> , Veps <i>päleti</i> ‘on top of each other’	North Saami <i>badjálaga(id)</i> , Skolt Saami <i>pâjllōōggi ~ pâjllōōžži</i> ‘on top of each other’
Finnish <i>päällitse</i> , Vespian <i>päličī</i> ‘over’ ²⁷	North Saami <i>badjel</i> ‘over’, South Saami <i>bijjelen</i> ‘over; onto’, Skolt Saami <i>pâ ‘jjel</i> ‘over’

Table 14. Some derivatives based on Finnic **pääl-* and Saami **pejē-l(ē)-*.

The cognation of the Finnic **pääl-* and Saami **pejē-l(ē)-* is opposed by the irregular vowel correspondence, but the comparison could nevertheless be correct if the shape of the expected Finnic reflex **pi(j)äl-* would have been secondarily transformed to **pääl-* due to contamination with the noun *pää* ‘head; end’. One could also think of another motive for the irregular change: the expected form **pi(j)äl-* would have become very close or even identical to another Finnish relational noun, *pieli* ‘edge, side’, which according to Janhunen (1981: 241) and Sammallahti (1988: 539) goes back to Proto-Uralic **pexli*. It is perhaps not altogether irrelevant that in certain Finnic languages or dialects the reflexes of the expected form **pi(j)ä-* would have completely merged with those of the noun **pää* ‘head; end’. This is the case in certain eastern dialects of Finnish and in Karelian, where a diphthongization **ää > iä* took place: cf. *piä* ‘head; end’, *piällä* ‘on, on top of’. A similar diphthongization **ää > ea* has also taken place in Estonian, cf. *pea* ‘head, end’, *peal* ‘on, on top of’. The Estonian form *peal* could also theoretically be a reflex of earlier **pi(j)ällä*, cf. Estonian *seal* ‘there’ < **sial* < **sikällä* (~ Finnish *siellä* ‘there’).

Due to phonological irregularities the equation of Finnic **pääl-* and Saami **pejē-l(ē)-* remains uncertain, but the possibility should not be entirely rejected as is done by modern etymological dictionaries (UEW: 365; SSA s.v. *pää, päällä*; Häkkinen 2004 s.v. *pää*) – especially when one takes into account that many other irregular and even downright

²⁷ In this case the prolativ suffix *-itse, -itši* may be secondary, as there are several cases where this suffix more or less freely alternates with a shorter suffix **-i*: cf. Finnish *ali ~ alitse* ‘under.PROL’, *yli ~ ylitse* ‘over.PROL’, *läpi ~ lävitse* ‘through’.

implausible etymological comparisons are accepted by the same dictionaries.²⁸ But whatever the case, the issue has no bearing on the origin of the Finnic *l*-cases: regardless of whether the Finnic *pääl*- word family is originally based on *l*-case forms of *pää* ‘head; end’ or an earlier derivative **päñi-l(ä)*- or **pijä-l(ä)*-, the *l*-case endings must still derive from Uralic **ül*-postpositions.

6. Discussion and conclusion

As has been shown above, the evidence presented for the earlier *lA*-theory is quite unsystematic and insufficient. Instead, the correspondence between Finnic *l*-cases and Uralic **ül*-postpositions is rather striking, and there is overwhelming evidence supporting their cognation. At this point, then, it is interesting to ponder why the *lA*-theory nevertheless remained so widely accepted for almost a hundred years.

Since the very beginning the *lA*-theory suffered from the basic weakness that it was based on a kind of internal reconstruction of Finnish rather than a systematic comparison between cognate languages. After all, the whole idea was originally based on Budenz’s observation that the coaffix *-l*- resembled the suffix *-lA*, and that in the phrase *olla miehellä* ‘to be married (of a woman)’ the *l*-case form had a function comparable to a derivative in *-lA*: cf. *olla miehelässä* id. Even though additional arguments were presented by later scholars, the theory was never tested through systematic application of the comparative method. One can, in fact, say that Rask (1832: 35–38), Donner (1879: 84–93) and Bartens (2000: 83) are the only scholars who have chosen comparisons to other, non-Finnic Uralic languages as a starting point in their attempts to explain the development of the Finnic *l*-cases. It is furthermore interesting that only Rask managed to come close to the right solution, even though he naturally did not even have the chance to apply the comparative method which was only developed decades later.

Regardless of its weakness, the *lA*-theory became widely accepted already in the early 20th century, and it seems to have rather quickly turned into a piece of traditional academic knowledge copied from one reference to the other. This process can be understood in a wider perspective on research history: the tradition of research into Uralic historical morphology must be criticized of the fact that the semantics and functions of morphemes have often not

²⁸ For example, UEW (365) compares Finnish *pää* and its Uralic cognates (< Proto-Uralic **päñi*) to Old Turkish *mäñi* ‘brain’ and Mongolian *heki* ‘head; beginning’.

played a central role. There has been a tendency to present hypotheses based primarily on the phonological shape of the suffixes in question; these kinds of comparisons are then supported with references to vague similarities of meaning. Thus also the “local” *l*-cases in Finnic languages came to be equated with the “local” derivational suffix **-lA*.

As another example of this research tradition one can mention the line of thought which can be called ‘the lative paradigm’ (see Footnote 20 in Section 3.4). In comparative Uralic linguistics there is a tradition of reconstructing a variety of different directional case endings, so-called ‘latives’; frequently suggested lative suffixes include at least **-n*, **-ń*, **-ŋ*, **-k*, **-j*, and **-s*. Then, numerous inflectional and derivational suffixes in the Uralic languages are explained on the basis of these reconstructed latives. One can distinguish between at least two types of such ‘lative explanations’:

- a) The suffix is explained as a combination of two different lative suffixes. — For example, the Finnic-Saami illative suffix **-sin* has often been thought to consist of a combination of the lative suffixes **-s* and **-n* (e.g., Korhonen 1981: 219), and the translative suffix **-ksi* has, in turn, been explained on the basis of the lative suffixes **-k* and **-s* (e.g., Bartens 1999: 77–78). In both cases **i* would be an epenthetic vowel which was added to avoid a phonotactically illegal word-final consonant cluster.

- b) The suffix is explained as a combination of a lative (or several latives) and some other suffix. — It has been widely maintained that the endings of the inessive (**-s-nA*) and the elative (**-s-tA*) are based to the lative **-s*, after which the locative (**-nA*) and ablative (**-tA*) suffixes were added (e.g., Korhonen 1981: 222–224; see Ylikoski 2011; 2016 for a detailed critique of this tradition). As another example one may mention the Proto-Saami modal suffix **-ktē*, as in North Saami *čehpe-t* ‘skillfully’ (< **čeappē-ktē*) ← *čeahppi* ‘skillful’; it has been proposed that this consists of the lative **-k* and the ablative **-tA* (Korhonen 1981: 232–233). The Proto-Saami abessive suffix **-ptākek/n* (which in North Saami was degrammaticalized into the independent postposition *haga*), on the other hand, is considered to derive from the Proto-Uralic abessive suffix **-ptA* with two lative suffixes added to it (ibid.: 226–227).

The lative paradigm, however, suffers from a fundamental weakness: the presented comparisons are nearly always semantically shallow and arbitrary. There have been very few serious attempts to show any functional connections between the various suffixes and the

purported “latives” underlying them, to say nothing of actual attempts to reconstruct the process of how the assumed combinations of “latives” and other suffixes arose and then developed. This is all the more problematic because the postulated combinations of suffixes often appear strange when viewed from a functional perspective. For example, it is not easy to see why the translative ending **-ksi* would be based on two conjoined directional case endings.²⁹ One could hardly imagine, for instance, that the Finnish allative and illative case endings could become conjoined in this manner, and that the resulting combination would then have a translative-like function, as follows:

- (70) **Hän opiskeli opettaja-lle-seen.*
 3SG study.3SG.PST teacher-ALL-ILL
 ‘S/he studied to become a teacher.’
 (pro *opettaja-ksi* [teacher-TRANSL])

²⁹ It should be noted that more reasonable explanations of the origin of the translative ending **-ksi* have been proposed, as well. Hakulinen (1979: 101–102) considers the lative explanation methodologically dubious, and refers to Uotila’s (1945: 335ff.) view that the ending could be equated with homonymous derivational suffix **-ksi* ‘material for X’: cf. e.g. Finnish *aida-kse-t* ‘stakes (for building a fence)’ ← *aita* ‘fence’. A particularly plausible explanation is provided by Janhunen’s (1989: 301) suggestion, according to which the translative ending derives from Proto-Uralic and is cognate with the Proto-Samoyed marker of the predestinative declension **-tə-*. This is reflected, e.g., in Tundra Nenets *-də-*: cf. $xər^\circ$ ‘knife’ → $xər^\circ-də-da$ [knife-PREDES-3SG] : $xər^\circ-də-m-ta$ [knife-PREDES-ACC-3SG] : $xər^\circ-də-n-ta$ [knife-PREDES-GEN-3SG] ‘a knife for him’ (Salminen 1998: 539). Predestinative genitive forms come also functionally close to Finnish translatives, as discussed by Salminen (2014: 289–294) and seen in (iv.a–b):

- (iv) a. $tʰuku^\circ$ *wæsakoh* *ne* *nūm* *ne-d^o-n-ta* *me^oda*
 this old.man.GEN woman child woman. PREDES-GEN-3SG take.3SG>SG
 b. *Hän otti tämän ukon tyttären vaimo-kse-nsa.*
 3SG take.PST.3SG this.GEN old.man.GEN daughter.GEN wife-TRANSL-3SG
 ‘He took that old man’s daughter **as a wife for him.**’ (Tereščenko 1965: 291; we are obliged to Tapani Salminen for this example.)

The sound correspondence between the suffixes **-ksi* and **-tə-* is entirely regular; in Proto-Samoyed there was a change **-ks- > *-t-* (cf. e.g. Proto-Uralic **mjksa* ‘liver’ > Proto-Samoyed *mjtə*; Janhunen 1981: 251).

One has to stretch one's imagination even more to think of a combination of a directional and a separative case ending in a modal function, or that as many as two directional case endings would be added after an abessive suffix:

- (71) **Hän opetti taitava-lle-lta ja jopa palka-tta-lle-lle/seen.*
 3SG teach.3SG.PST skillful-ALL-ABL and even salary-ABE-ALL-ALL/ILL
 'S/he taught skillfully and even without salary.'
 (pro *taitava-sti ja jopa palka-tta* [skillful-ADV and even salary-ABE])

As the two pseudo-Finnish examples show, the creation of new derivational suffixes or case suffixes can hardly take place through mere unmotivated conjunction of two (or more) existing case endings. Such a development would be quite an extraordinary morphosyntactic innovation, and thus postulating that such an innovation has taken place in a reconstructed proto-language ought to require quite extraordinary evidence as well. (For more detailed discussions on the few somewhat plausible instances of different kinds of case stacking in Uralic, see Ylikoski 2011: 245–246, 263, 272; 2016: 36–41).

Whatever the actual background of the suffixes discussed above may be, the loose suppositions that connect them with various “latives” serve as a good examples of the flaws of the lative paradigm: the explanations offered for the origin of suffixes are generally characterized by semantic opacity and absence of typological considerations (see also Ylikoski 2016). What is more, the phonological aspects of this method of explanation are also unconvincing. One merely needs to mechanically segment the suffixes and see if their components could correspond to some other suffixes, preferably to “latives”. Vowels can often be ignored, as they can be explained away as epenthetic:

- illative *-*s-i-n* = lative *-*s* + epenthetic vowel + lative *-*n*
 translative *-*k-s-i* = lative *-*k* + lative *-*s* + epenthetic vowel
 modal suffix *-*k-tA* = lative *-*k* + ablative *-*tA*

Regarding phonology, it is crucial that only 17 consonant phonemes are reconstructed to Proto-Uralic (Janhunen 1981: 251; Sammallahti 1988: 482), and five of these (**c*, **d*, **d'*, **r*, **x*) seem to have been confined to lexical roots and are not known to have occurred in suffixes. Hence, the six reconstructed lative suffixes *-*n*, *-*n'*, *-*ŋ*, *-*k*, *-*j* and *-*s* already cover half of the consonants that can be found in any suffix. When such an abundance of

phonological possibilities is combined with a nearly total lack of semantic constraints on the comparisons, it becomes an easy task indeed to discover “latives” wherever one looks for.

The following thought experiment shows how seriously astray this kind of reasoning may lead. In the Eastern Finnmark dialects of North Saami the comitative plural ending *-iguin* has become reduced to the form */-jon/ ~ /-jan/*, as in <*mánáiguin*> */määnääjon/ ~ /määnääjan/* ‘with children’. In this case it is well-known that the suffix has developed through the agglutination of an original postposition **guimme* (see 3.5.), but let us suppose instead that we had instead merely reconstructed a comitative ending **-jVn* into a remote proto-language. In that case its postpositional background would obviously not be easy to deduce, but instead, one could easily maintain that the suffix was a combination of the “latives” **-j* and **-n*. Given the vagueness of the semantic criteria generally applied in such comparisons, there should be no semantic objection to such an analysis: after all, also the Finnish comitative-instructive (and genitive) ending **-n* has been considered related to the “lative” ending **-n* (e.g., Leino 2001).

We will mention yet one more particularly curious example of such weakly argued and overoptimistic lative hypotheses. There has even been an attempt to explain the development of the Finnic *l*-cases on the basis of a lative; Alvre (1986) argues that they are originally based on Finno-Ugric lative suffix **-l*. His main argument, however, is circular: Alvre maintains that because the *s*-cases have been explained on the basis of a lative suffix **-s*, also the *l*-cases can be best explained on the basis of a lative. In addition to the general problems of the lative paradigm such an induction is illogical. Even if the *s*-cases were based on a lative suffix – which has never been convincingly argued either (Ylikoski 2016) – this would still not reveal anything about the origin of other case forms. Alvre naturally tries to substantiate his hypothesis by pointing out possible traces of this putative *l*-lative in various Finno-Ugric languages, but these comparisons are hardly convincing; moreover, he even resorts to speculation with long-range comparisons to the Yukaghir instrumental suffix *-le* (which was mentioned in 4.2) and certain suffixes in Tungusic languages.

At this point it should be clear that one must categorically reject all morphological explanations based on such random comparisons of suffixes with various kinds of “latives”. Instead, Uralic historical morphology ought to start paying more attention to the **functions** of morphemes. It is not enough merely to explain the phonological shape of inflectional morphemes; in addition, it is necessary to reconstruct the paths along which their usage has developed. This kind of explanation naturally requires painstaking application of the comparative method to broad and representative sets of data, and cannot be achieved by

superficial comparisons of morphemes and analysis of individual forms and constructions selected at more or less random, which has characterized much of the work done within the context of the lative paradigm. One can add that the typological knowledge we have today offers a solid basis for the postulation of new hypotheses. It is, for instance, well-known that in the world's languages many suffixes have emerged through agglutination of originally independent words, but rarely indeed through the conjunction of various "latives" or other directional case endings. In Uralic linguistics, these kinds of thoughts have been brought up on a general level by Korhonen:

As is known, there are quite a number of rather young an[d] therefore transparent case forms derived from postpositional constructions in the Uralic languages. The postpositions from which the case suffixes originate can mostly be traced back to nouns with concrete, usually local or spatial meanings, such as 'the inside', 'upper side', 'base', etc. It also seems that case suffixes can originate from combinations of two or more older case suffixes. **However, some case suffixes that have traditionally been interpreted as suffix combinations may with more thorough research prove to be original, less transparent postpositions.** (Korhonen 1991: 177; emphasis added.)

In this connection we can propose yet another new hypothesis inspired by this kind of approach. Earlier we mentioned the possibility that the possessive *l*-cases in Mari and Permic languages might involve agglutinated cognates of postpositions based on a relational noun root cognate with North Saami *lu-*, Finnish *luo-* 'at' (see 4.2). Ylikoski (2016) proposes that the western Uralic *s*-cases as well the Samoyed local cases with the element **-ntə-* may originate in Proto-Uralic postpositional phrases, possibly based on a relational noun **seCV-* (**sekä-*, **seki-* or **sexi-*) for 'inside, interior'. Another possible example of such grammaticalization is the Proto-Finnic prolativ ending **-iccek* (> Finnish *-itse*). This does not occur as a particularly productive case form in any Finnic language, but it is found in various adverbs such as Finnish *maitse* 'by land' and *meritse* 'by sea'. No acceptable cognates for this suffix have been shown from other Uralic languages (cf. Suoniemi-Taipale 1994: 230–247; Larjavaara 1995: 613–615). Thus, we propose that the prolativ ending goes back to a postposition **südik*, which has a cognate in Saami: North Saami *čáda*, South Saami *tjirrh*, Skolt Saami *čõðđ* 'through', etc. (< Proto-Saami **čēðēk*). This word has been derived from the same Uralic root as the noun **südami* 'heart' (> Skolt Saami *čââ`đ*, Finnish *sydän*, Mari *šüm*, Komi *šęlem*, Hungarian *szív*, etc. 'heart') (SSA s.v. *sydän*; UEW: 477).

The equation of the prolativ suffix **-iccek* with the postposition **südik* involves no notable phonological problems. The Pre-Proto-Finnic form of the suffix is reconstructed as **-*

ńček or **-ńček* (cf. Suoniemi-Taipale 1994: 230–240; Larjavaara 1995: 613–615). The Proto-Finnic geminate affricate **-cc-* is apparently a product of secondary gemination; a similar development is also widely attested in the Proto-Finnic diminutive and adjective suffix **-ise-* ~ **-icce-*. In modern Finnish the suffix mostly occurs in the form *-(i)se-*, e.g. *kala-nen* : SG.GEN *kala-se-n* ‘little fish’, *villa-inen* : SG.GEN *villa-ise-n* ‘woollen’. In dialects one can find vestigial forms pointing to a geminate affricate, such as Tavastian Finnish *semmo-tte-t* ‘those kinds of’, *tämmö-tte-t* ‘these kinds of’ (*-tt-* < **-cc-*), and in old literary Finnish such forms are common, e.g. Agricola *synneitze-n* ‘sinful-GEN’ ~ modern Finnish *syntise-n* (Hakulinen 1979: 124–125). The South Estonian cognate of this suffix also points to a geminate affricate, as in *villa-nõ* : SG.GEN *villa-dsõ* : SG.ILL *villa-tsõ-he* ‘woollen’ (~ Finnish *villainen*) (Keem 1997: 32). The Pre-Proto-Finnic form of the suffix **-ise-* ~ **-icce-* can be reconstructed as **-ńće-*, which in turn derives from an even earlier form **-ńsí*; this is also the source of the Proto-Saami diminutive suffix **-ńčę* (> North Saami *-š* : *-ž-*, e.g. **kuolā-ńčę* > *guolá-š* : *guolá-ž-* ‘little fish’) (Sammallahti 1998: 90).

The suffix **-ise-* ~ **-icce-* provides a good phonological parallel for the development of the prolativ suffix **-iccek*. The oldest form of the suffix can be reconstructed as **-ńsík*, which already comes close to the postposition **śüđik* which can be reconstructed on the basis of Saami. The nasal **-n-* was originally the genitive ending on the complement of the postposition, and **-sík* can be quite naturally explained as a reduction of the form **śüđik*: the development would have been approximately **meri-n śüđik* >> **merińśüik* >> **merińčík* (> Finnish *meritse* ‘by sea’). Both the vowel *ü* and the spirant *đ* are articulatorily weak sounds, and their loss in an unstressed position would be quite expected. For example, in the Eastern Finnmark dialects of North Saami the phoneme */đ/* shows the tendency to disappear between unstressed vowels, and hence forms such as <*boradit*> */poorađehl* ~ */poora.ehl* ‘eat, have a meal’ are more or less in free variation. The loss of the vowel *ü* was already discussed in Section 3.4 above.

In addition to phonological arguments, the equation of the Finnic prolativ with the (North) Saami postposition *čáđa* naturally also requires the establishment of a semantic-functional correspondence between these elements. It is true, the usage of the prolativ does not exactly correspond to the postposition *čáđa* as the usage of the *l-*cases does to the Saami *al-*postpositions. Instead, the Finnic prolativ – which is indeed not even a case form but instead a weakly productive and rather rare type of adverb derivative – is often most naturally translated into North Saami with the postposition *bokte* rather than *čáđa*: e.g., Finnish *meritse* ‘by sea’ = North Saami *meara bokte*. One must note, however, that the meanings of the North

Saami postpositions *bokte* and *čáđa* come rather close to each other; Sammallahti (1998: 232–233) glosses them in English as ‘via, through’ and ‘through’, respectively. Moreover, one can indeed find a few prolative forms that can be translated exactly into North Saami with *čáđa* postpositional phrases, and vice versa. The following examples show that such correspondences can be found in both traditional (72–73) and modern (74–75) functions of the postposition *čáđa*:

- (72) [– –] *varsinkin, jos kuluneilla sormilla on*
 especially if wear.PST.PTCP.PL.ADE finger.PL.ADE be.3SG
vuosikausien turhana työnä ollut killingin köyhän
 multiple.years.PL.GEN vain.ESS work.ESS be.PST.PTCP coin.GEN poor.GEN
kuparin pyydystäminen, joka saavuttamattomana on liukunut
 copper.GEN catch.AN which unattainable.ESS be.3SG slide.PST.PTCP
koukistuvien raoitse, niinkuin vesi seulan reijitse!
 bend.PRS.PTCP.PL.GEN gap.PROL like water sieve.GEN hole.PROL
 ‘[– –] *jeandalitge jos nohkan suorpmain leamaš jahkemeiriid*
 especially if wear.PST.PTCP finger.PL.LOC be.PST.PTCP multiple.years
duššibargun háhpohallat váivváš veaikešillinggaid, mat
 vain.work.ESS grope.INF poor copper.shilling.PL.GA which.PL
juksameahttumin leat johtán suorbmalanjaid čáđa, dego čáhci
 unattainable.ESS be.3PL slip.PST.PTCP finger.gap.PL.GA čáđa like water
silleráiggiid čáđa!
 sieve.hole.PL.GA čáđa
 ‘[– –] especially if one’s worn fingers have for years been grasping in vain for scanty
 copper shillings that have unattainably slipped **through the gaps of one’s crooked
 fingers** like water **through holes of a sieve!**’ (Kilpi 1993 [1933]: 121)

- (73) *Ääni läheni lähenemistään, sillä talvitie kulki*
 sound come.near.PST.3SG come.near.AN.ELA.3SG because winter.way go.PST.3SG
Telkiän pihatse.
 Telkiä.GEN yard.PROL
 ‘*Jietna lahkonii aht’ lahkonii, dasgo dälvemádii*
 sound come.near.PST.3SG COMP come.near.PST.3SG because winter.way
manai Telkiä šilju čáđa.’

go.PST.3SG Telkiä.GA yard.GA *čáđa*

‘The sound came nearer and nearer, as the winter way went **through Telkiä’s yard.**’

(Reijonen 1900: 427–428)

(74) [N. N.] *lea váidán Guovdageainnu lagasrádio (GLR)*

N. N. be.3SG accuse.PST.PTCP Guovdageaidnu.GA local.radio.GA (GLR)

leansmánii. Daningo dikte muhtun boazosápmelačča soaibmat

lensmann.ILL because allow.PST.3PL some Saami.reindeer.herder.GA revile.INF

su rádio čáđa.

3SG.GA radio.GA *čáđa*

‘N. N. *on tehnyt Koutokeinon paikallisradiosta (GLR)*

N. N. be.3SG make.PST.PTCP Guovdageaidnu.GEN local.radio.ELA (GLR)

valituksen nimismiehelle, koska erään porosaamelaisen

complaint.GEN lensmann.ALL because certain Saami.reindeer.herder.GEN

sallittiin haukkua häntä radioitse.’

allow.PST.PASS revile.INF 3SG.PTV radio.PROL

‘N. N. has filed a complaint against the Guovdageaidnu local radio station (GLR) at the Lensmann, because one Saami reindeer herder was allowed to revile him **on the radio.**’

(MÁ 1995)

(75) *Jearahallan 51 čearuid ságadoalliid gaskkas*

survey.AN 51(.GA) reindeer.herding.district.PL.GA chairperson.PL.GA among

vuoseha ahte stuorimus váttisvuohta lea oalle heajos vejolašvuođat

show.3SG COMP great.SUP difficulty be.3SG rather bad possibility.PL

gulahallat telefuvnnaid čáđa.

communicate.INF telephone.PL.GA *čáđa*

‘*Kysely 51 paliskunnan puheenjohtajien keskuudessa*

survey 51(.GEN)reindeer.herding.district.GEN chairperson.PL.GA among

osoittaa, että suurin ongelma ovat sangen huonot mahdollisuudet

show.3SG COMP great.SUP problem be.3PL rather bad.PL possibility.PL

keskustella puhelimitse.’

communicate.INF telephone.PROL

‘A survey of chairpersons of 51 reindeer herding districts shows that the greatest difficulty is posed by the very poor possibilities to communicate **by telephone.**’

(<http://www.glesbygdsverket.se> 10.4.2007)

The *ül*-theory presented in this paper and the new hypothesis of the origin of the Finnic prolativum serve as examples of what kind of insights more remotely related Uralic languages can offer to the study of Finnic historical morphology. It was, after all, a fatal weakness of the earlier *lA*-theory that it did not take evidence from languages outside the Finnic group into serious consideration. Because of this it is regrettable that it has already become a sort of a tradition to examine the history of Finnish from a narrow, language-internal perspective; diachronic hypotheses are often based on material collected from Finnish exclusively, often even neglecting material from other, closely related Finnic languages (e.g., Inaba 2002: 254–261 and Ylikoski 2005 have noted that this kind of argumentation is becoming widespread). But when the study of the history of Finnish and Finnic is correctly viewed as one subfield of Uralic historical linguistics, the background of many linguistic phenomena in Finnish reveal themselves in an altogether different light.

Abbreviations

1	first person	CMPV	comparative
2	second person	CNG	connegative
3	third person	COM	comitative
ABE	abessive	COMP	complement
ABL	ablative	CVB	converb
ACC	accusative	DAT	dative
ADE	adessive	DEF	definite
ADJ	adjective	DIM	diminutive
ADV	adverb	DPT	discourse particle
ALL	allative	DU	dual
AN	action nominal	ELA	elative
APPR1	first approximative (case)	ESS	essive
ATTR	attributive	EX	existential
CAUS	causative	FUT	future

GA	genitive-accusative	PREDES	predestinative
GEN	genitive	PROG	progressive
ILL	illative	PROL	prolative
IMP	imperative	PRS	present tense
INCH	inchoative	PST	past tense
INE	inessive	PST2	second past tense
INF	infinitive	PTCP	participle
INFR	inferential	PTV	partitive
INS	instrumental	Q	question
LAT	lative	REFL	reflexive
LOC	locative	SG	singular
NEG	negative verb	STEM	word stem
NOM	nominative	SUP	superlative
PASS	passive	TRANSL	translative
PL	plural		

References

Corpus material

- Aikio, Annukka & Aikio, Samuli 1978a: *Girdinoaiddi bárdni. Sápmelaš máidnasat*. Porvoo – Helsinki – Juva: WSOY.
- 1978b: *Lentonoidan poika. Saamelaisia satuja*. Porvoo – Helsinki – Juva: WSOY.
- Blind, Ella Karin 1992: *Eallima govat*. Johkamohkki: Sámi Girjjit.
- Castrén, Matthias Alexander 2005: *Sámi mátkkit. 1838 ja 1841–42*. Kárášjohka: ČálliidLágádus.
- Gaski, Harald & Solbakk, John T. & Solbakk, Aage (eds.) 2004: *Min njálmmálaš árbevierru. Máidnasat, myhtat ja mitalusat*. [Kárášjohka]: Davvi Girji o.s.
- Guttorm, Eino 1981: *Árbeeatnan luohiti*. Deatnu: Jár'galæd'dji Á/s.
- Hætta, Lars – Bær, Anders 1982 [1958]: *Mitalusat*. Tromsø – Oslo – Bergen: Universitetsforlaget.

- 1993: *Usko ja elämä. Koutokeinon saamelaisten hengellisestä elämästä, Lars Levi Laestadiuksen heräyksestä ja lestadiolaisuuden alkuvaiheista ennen vuotta 1852.* Utsjoki: Girjegiisá.
- Jansson, Tove 1979 [1965]: *Muumipappa ja meri.* Porvoo – Helsinki – Juva: WSOY.
- Jansson, Tove 1990: *Áhčči ja mearra.* Ohcejohka: Girjegiisá.
- Kristiansen, Roald E. 2004a: *Davviguovlluid eamiálbmogiid oskkut ja sámi dološ osku. Oahppogirji nuoraidskuvlla 8.–10. luohkáide.* Kárášjohka: ČálliidLágádus.
- 2004b: *Leastadianisma. Oahppogirji nuoraidskuvlii.* Kárášjohka: ČálliidLágádus.
- Marastat, Mihkkal 1990: *Máhkanvári gumpet.* Guovdageaidnu: DAT.
- 1991: *Siidavuomi golli.* Guovdageaidnu: DAT.
- 1992: *Darjeskáiddi čiehká.* Guovdageaidnu: DAT.
- MÁ = *Min Áigi.* [Approximately 150 issues published in years 1995 and 1997, provided to the Giellagas Institute for Saami Studies (University of Oulu, Finland) by the Language Bank project of the Nordic Sami Institute (Guovdageaidnu, Norway).] Kárášjohka.
- Mukka, Timo K. 1966: *Laulu Sipirjan lapsista.* Jyväskylä: Gummerus.
- 2005: *Sipirjá.* Kárášjohka: Davvi Girji o.s.
- OT = *Ođđa Testamenta.* Oslo: Norgga Biibbalsearvi 1998.
- Piibel = *Piibel. Vana ja Uus Testament.* Tallinn: Eesti Piibliselts 1997.
- Raamattu = *Raamattu.* Suomen evankelis-luterilaisen kirkon kirkolliskokouksen vuonna 1992 käyttöön ottama suomennos. <<http://www.evl.fi/raamattu/1992/>>
- Sombi, Ásllat 1996: *Jávvásan goahtesajit. Dáhpáhusat dološ badjeallimis.* Kárášjohka: Davvi Girji o.s.
- Turi, Klemet Nilsen 1982: *Áiggit rivdet.* [Deatnu]: Jår'galæd'dji Á/s.
- US = *Uuzi Sana.* Koitepainos. Helsinki: Biblienkiännändüinstituuttu 2003.
- UT = *Ūž Testament.* Helsinki: Suomalaisen Kirjallisuuden Seuran Kirjapainon Oy 1942.
- Vars, Ellen Marie 1990: *Arvedávvggi mánát.* [Kárášjohka]: Davvi Girji o.s.
- Vest, Jovvna-Ánde 1988: *Čáhcegáddái nohká boazobálggis.* Kárášjohka: Davvi Girji o.s.
- 1990: *Poropolku sammaloituu.* Oulu: Pohjoinen.
- VS = *Вьль Сүзён.* Стокгольм – Хельсинки: Библиез берыктонъя Институт 1997.
- ÅT = *Ådå Testamennta.* Uppsala: Svieriga ráamátsiebrre 2000.

Other sources of material

- Biblia 1642 = Vanhan testamentin II osa: Joosuan kirja, Tuomarien kirja, Ruutin kirja, Samuelin kirjat, Kuningasten kirjat, Aikakirjat, Esran kirja, Nehemian kirja ja Esterin kirja [text corpus]. – Helsinki: Institute for the Languages of Finland.
<http://kaino.kotus.fi/korpus/vks/meta/biblia/vt2_joos_rdf.xml> 13.4.2007.
- Cuning:sen Maij:tin Säändö ja Asetus Palcollisist ja Palckawäest 1723 = 1700-luvun asetustekstejä [text corpus]. – Helsinki: Institute for the Languages of Finland.
<http://kaino.kotus.fi/korpus/vks/meta/lait/as1700_rdf.xml> 2.4.2007.
- IK = Itkonen, Erkki 1992: *Inarinsaamelaisia kielennäytteitä. Aanaarkiela čájtuzeh*. Ed. by Lea Laitinen. *Memoires de la Société Finno-Ougrienne* 213. Helsinki: Société Finno-Ougrienne.
- Kilpi, Volter 1993 [1933]: *Alastalon salissa. Kuvaus saaristosta. II*. Helsinki: Otava.
- LAFD = *Lexical Archive of Finnish Dialects (Suomen murteiden sana-arkisto)*. Institute for the Languages of Finland (Kotus), Helsinki.
- LS = Bull, Ella Holm & Bergsland, Knut 1993: *Lohkede Saemien. Sørsamisk lesebok*. Kárášjohka: Davvi Girji o.s.
- OTGr. = *The NRSV–NIV™ parallel New Testament in Greek and English. With interlinear translation by Alfred Marshall*. Grand Rapids, Michigan: Zondervan Publishing House 1990.
- Reijonen, Juho 1900: *Kertoelmia ja kuvauksia*. Porvoo: Werner Söderström.
- Sammallahti, Pekka (ed.) 2004: *Javrij jieŋah parguu. Anárašgiel lohkosat*. Publications of the Giellagas Institute 2. Oulu: University of Oulu.
- (2012): *Vuõ ʹlgge jåå ʹted ooudâs. Sää ʹmkiõllsaž lookkâmke ʹrjj*. Publications of the Giellagas Institute 14. Oulu: University of Oulu.
- Suomenkieliset Tieto-Sanommat 17/1776 = Lizelius, Antti: *Suomalaiset Tieto-Sanommat 1775 ja 1776* [text corpus]. – Helsinki: Institute for the Languages of Finland.
<http://kaino.kotus.fi/korpus/vks/meta/lizelius/sts1775_rdf.xml> 2.4.2007.
- Vanhan kirjasuomen korpus. Helsinki: Institute for the Languages of Finland.
<http://kaino.kotus.fi/korpus/vks/meta/vks_coll_rdf.xml> 2.4.2007.

Other references

- Ahqvist, August 1863: Om Ungerska språkets förvandtskap med Finskan. – *Suomi* II: 1: 1–60. Helsinki.
- 1877: *Suomen kielen rakennus. Vertaavia kieliopillisia tutkimuksia. I. Nominien Synty ja Taivutus. Suomalainen Runo-oppi*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Aikio, Ante 2014: The Uralic-Yukaghir lexical correspondences: genetic inheritance, language contact or chance resemblance? – *Finnisch-Ugrische Forschungen* 62: 7–76.
- Aikio, Ante & Ylikoski, Jussi 2007: Suopmelaš gielaid *l*-kásusiid álgovuoddu sáme- ja eará fuolkegielaid čuovggas. – Jussi Ylikoski & Ante Aikio (eds.), *Sámit, sánit, sátnehámit. Riepmočála Pekka Sammallahtii miessemánu 21. beaivve 2007*. Suomalais-Ugrilaisen Seuran Toimituksia 253. Helsinki: Suomalais-Ugrilainen Seura. 11–71.
- Alhoniemi, Alho 1979: Suomen kielen *l*- ja *s*-sijojen oppositiosta. – Kaisa Häkkinen, Jussi Kallio & Leena Kytömäki (eds.), *Sanomia. Juhlakirja Eeva Kangasmaa-Minnin 60-vuotispäiväksi 14.4.1979*. Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 9. Turku: Turun yliopisto. 89–105.
- 1985: *Marin kielioppi*. Apuneuvoja suomalais-ugrilaiden kielten opintoja varten X. Helsinki: Suomalais-Ugrilainen Seura.
- 2001: Über den alten und neuen Lokalkasussuffixe im Tscheremissischen. – *Finnisch-Ugrische Forschungen* 56: 95–115.
- Alvre, Paul 1986: Zu den finnisch-ugrischen *l*-Kasus. – *Советское финно-угроведение* 22: 81–87.
- Anttila, Raimo & Uotila, Eeva 1984: Finnish *ovela* ‘sly, cunning’ and the Baltic Finnic outer local cases. – *Ural-Altische Jahrbücher* 56: 121–128.
- Baker, Robin 1985: *The development of the Komi case system. A dialectological investigation*. Suomalais-Ugrilaisen Seuran Toimituksia 189. Helsinki: Suomalais-Ugrilainen Seura.
- Bartens, Raija 1978: *Synteettiset ja analyttiset rakenteet lapin paikanilmauksissa*. Suomalais-Ugrilaisen Seuran Toimituksia 166. Helsinki: Suomalais-Ugrilainen Seura.
- 1999: *Mordvalaiskielten rakenne ja kehitys*. Suomalais-Ugrilaisen Seuran Toimituksia 232. Helsinki: Suomalais-Ugrilainen Seura.
- 2000: *Permiläisten kielten rakenne ja kehitys*. Suomalais-Ugrilaisen Seuran Toimituksia 238. Helsinki: Suomalais-Ugrilainen Seura.

- Batalova = Баталова, P. M. 1982: *Ареальные исследования по восточным финно-угорским языкам (коми языки)*. Москва: Наука.
- Bergsland, Knut 1946: *Røros-lappisk grammatikk. Et forsøk på strukturell språkbeskrivelse*. Instituttet for sammenlignende kulturforskning. Serie B. Skrifter XLIII. Oslo: H. Aschehoug & Co.
- Blake, Barry J. 2001: *Case*. Cambridge: Cambridge University Press.
- Blomstedt, Oskar Aukusti Frithiof 1869: *Halotti Beszéd ynnä sen johdosta Wertailevia Tutkimuksia Unkarin, Suomen ja Lapin kielissä*. Helsinki: J. Kr. Frenckell.
- Budenz, József 1886: Az ugor nyelvek összehasonlító alaktana. Első rész: Az ugor nyelvek szóképzése II. Névszóképzés. – *Nyelvtudományi Közlemények* 20: 401–474.
- Castr[é]n, Matthias Al[e]xander 1839: *De affinitate declinationum in lingua Fennica, Esthonica et Lapponica*. Helsingforsiae: Typis Frenckellianis.
- Castrén, Matthias Alexander 1844: *Elementa grammatices Syrjaenae*. Helsingforsiae. Ex officina typographica heredum Simelii.
- 1854 = *M. Alexander Castrén's Grammatik der samojedischen Sprachen*. Im Auftrage der Kaiserlichen Akademie der Wissenschaften herausgegeben von Anton Schiefner. St. Petersburg: Buchdruckerei der Kaiserlichen Akademie der Wissenschaften.
- 1858 [1849] = *M. Alexander Castrén's Versuch einer ostjakischen Sprachlehre nebst kurzem Wörterverzeichnis*. Herausgegeben von Anton Schiefner. Zweite verbesserte Auflage. St. Petersburg: Buchdruckerei der Kaiserlichen Akademie der Wissenschaften.
- Collinder, Björn 1952: Uralaltaisch. – *Ural-Altäische Jahrbücher* 24: 3–4: 1–26.
- 1960: *Comparative grammar of the Uralic languages*. Stockholm: Almqvist & Wiksell.
- Donner, O. 1879: *Die gegenseitige Verwandtschaft der finnisch-ugrischen Sprachen*. Abdruck aus den Acta Soc. Scient. Fennicæ. Tom. XI. Helsingfors: Druckerei der Finnischen Litteratur-Gesellschaft.
- Friis, J. A. 1856: *Lappisk Grammatik. Udarbeidet efter den finmarkiske Hoveddialekt eller Sproget, saaledes som det almindeligst tales i norsk Finmarken*. Christiania: J. W. Cappelen.
- Genetz, Arvid 1896: *Ensi tavuun vokaalit suomen, lapin ja mordvan kaksi- ja useampitavuisissa sanoissa*. Helsinki: Suomalaisen kirjallisuuden seura.
- Givón, Talmy 1979: *Ute dictionary*. Preliminary edition. Ignacio, Colorado: Ute Press.
- 1980: *Ute reference grammar*. First edition. Ignacio, Colorado: Ute Press.
- Häkkinen, Kaisa 1983: *Suomen kielen vanhimmasta sanastosta ja sen tutkimisesta. Suomalais-ugrilaisten kielten etymologisen tutkimuksen perusteita ja metodiikkaa*.

- Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 17. Turku: Turun yliopisto.
- 1984: *Wäre es schon an der Zeit, den Stammbaum zu fällen? – Ural-Altäische Jahrbücher. Neue Folge* 4: 1–24.
- 1985: *Suomen kielen äänne- ja muotorakenteen historiallista taustaa*. Fennistica 6. Turku: Åbo Akademi.
- 2002: *Suomen kielen historia 1. Suomen kielen äänne- ja muotorakenteen historiallista taustaa*. Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 69. Turku: Turun yliopisto.
- 2004: *Nykysuomen etymologinen sanakirja*. Juva: WSOY.
- Hakulinen, Lauri 1941: *Suomen kielen rakenne ja kehitys. Ensimmäinen osa. Äänne- ja muoto-oppia*. Helsinki: Otava.
- 1979: *Suomen kielen rakenne ja kehitys*. Neljäs, korjattu ja lisätty painos. Helsinki: Otava.
- Halling, Tiina 1996: Vaihtoehtoja ulkopaikallissijoille liivissä. – Heikki Leskinen, Sándor Maticsák & Tõnu Seilenthal (eds.), *Congressus Octavus Internationalis Fenno-Ugristarum, Jyväskylä 10.–15. 8. 1995. Pars III. Sessiones sectionum. Phonologia & Morphologia*. Jyväskylä. 100–104.
- 1999: About Livonian preposition *iļ*. – Ago Künnap (ed.), *Indo-European-Uralic-Siberian linguistic and cultural contacts*. Fenno-Ugristica 22. Tartu. 65–76.
- Honti, László 2006: Eräästä ugrilaisten kielten postpositioperäisestä kaasussuffiksien perheestä. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 91: 81–91.
- Hunfalvy, Pál 1864: *A vogul föld és nép*. Reguly Antal hagyományaiból kidolgozta Hunfalvy Pál. Pest: Eggenberger Ferdinánd Akademiai Könyvtár.
- Huomo, Tuomas 1995: Paikallissijan kieliopillistuminen datii-geetiivin funktioon: Uralilaisen *n*-sijan ja itämerensuomalaisen adessiivin kehityksen vertailua. – *Sananjalka* 37: 55–79.
- Huomo, Tuomas & Ojutkangas, Krista 2006: An introduction to Finnish spatial relations: Local cases and adpositions. – Marja-Liisa Helasvuo & Lyle Campbell (eds.), *Grammar from the human perspective. Case, space and person in Finnish*. 11–20.
- Inaba, Nobufumi 2001: Elollistarkoitteinen lähde ja sen *s*-sijainen merkintä itämerensuomalaisissa kielissä: sijanmerkinnän ja sijajärjestelmän suhteesta II. – *Sananjalka* 43: 26–64.

- 2002: Ensimmäisen suomenkielisen Biblian allatiivin käyttö modernin kuvausvälineen valossa. – *Sananjalka* 44: 247–262.
- Itkonen, Erkki 1957a: Lokatiivista ja genetiivistä ym. – *Virittäjä* 61: 308–320.
- 1957b: Loppusanat prof. Kettuselle. – *Virittäjä* 61: 435–439.
- 1966: *Kieli ja sen tutkimus*. Helsinki: WSOY.
- IW = Itkonen, Erkki 1986–1991: *Inarilappisches Wörterbuch*. Lexica Societatis Fenno-Ugricae XX. Helsinki: Suomalais-Ugrilainen Seura.
- Janhunen, Juha 1977: *Samojedischer Wortschatz. Gemeinsamojedische Etymologien*. Castrenianumin toimitteita 17. Helsinki.
- 1981: Uralilaisen kantakielen sanastosta. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 77: 219–274.
- 1982: On the structure of Proto-Uralic. – *Finnisch-Ugrische Forschungen* 44: 23–42.
- 1989: Samojedin predestinatiivisen deklinaation alkuperästä. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 82: 298–301.
- 1998: Samoyedic. – Daniel Abondolo (ed.), *The Uralic languages*. London – New York: Routledge. 457–479.
- Kallio, Petri 2012a: Jälkitavujen diftongit kantasuomessa. – *Fenno-Ugrica Suecana Nova Series* 14: 31–40.
- 2012b: The prehistoric Germanic loanword strata in Finnic. – Riho Grünthal & Petri Kallio (eds.), *A linguistic map of prehistoric Northern Europe*. Mémoires de la Société Finno-Ougrienne 266. Helsinki: Société Finno-Ougrienne. 225–238.
- Keem, Hella 1997: *Võru keel*. Tallinn: Eesti Teaduste Akadeemia Emakeele Selts – Võro Instituut.
- Kettunen, Lauri 1943: *Vepsän murteiden lauseopillinen tutkimus*. Suomalais-Ugrilaisen Seuran Toimituksia 86. Helsinki: Suomalais-Ugrilainen Seura.
- 1957: Vastinetta Erkki Itkoselle. – *Virittäjä* 61: 428–434.
- KKS = Virtaranta, Pertti & Raija Koponen (eds.) 1968–2005: *Karjalan kielen sanakirja*. Lexica Societatis Fenno-Ugricae XVI, Kotimaisten kielten tutkimuskeskuksen julkaisuja 25. Helsinki: Suomalais-Ugrilainen Seura – Kotimaisten kielten tutkimuskeskus.
- Korhonen, Mikko 1979: Entwicklungstendenzen des finnisch-ugrischen Kasusystems. – *Finnisch-Ugrische Forschungen* 43: 1–21.
- 1981: *Johdatus lapin kielen historiaan*. Suomalaisen Kirjallisuuden Seuran toimituksia 370. Helsinki: Suomalaisen Kirjallisuuden Seura.

- 1991: Remarks on the structure and history of the Uralic case system. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 83: 163–180.
- Kracht, Marcus 2005: The Semantics of Locatives in the Uralic Languages. – Jocelyne Fernandez-Vest (ed.): *Les Langues Ouraliennes aujourd'hui*. Bibliothèque de l'École des Hautes-Études, Sciences Historiques et Philologiques, No 340. Editions Honoré Champion. 145–158.
- Kulonen, Ulla-Maija 1993: *Johdatus unkarin kielen historiaan*. Suomi 170. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Laaksonen, Heli 2000: *Adessiivi suomessa ja virossa – funktiot, frekvenssit, yhtäläisyydet, erot, vastineet*. Pro gradu -tutkielma. Turun yliopiston suomen kielen ja yleisen kielitieteen laitos. Turku.
- Laanest, Arvo 1982: *Einführung in die ostseefinnischen Sprachen*. Autorisierte Übertragung aus dem Estnischen von Hans-Hermann Bartens. Hamburg: Helmut Buske Verlag.
- Larjavaara, Matti 1995: Prolatiivi ennen ja nyt. – *Virittäjä* 99: 609–616.
- Lauranto, Yrjö 1994: Sisä- ja ulkopaikallissijat: onko perinteinen opettamisjärjestys perusteltu? – Minna Suni & Eija Aalto (eds.), *Suuntaa suomenopetukseen – tuntumaa tutkimukseen*. Korkeakoulujen kielikeskuksen selosteita 4. Jyväskylä: Korkeakoulujen kielikeskus. 37–61.
- Laver, John 1994: *Principles of phonetics*. Cambridge: Cambridge University Press.
- Leem, Knud 1748: *En lappisk Grammatica efter den Dialect, som bruges af Field-Lapperne udi Porsanger-Fiorden*. Kiøbenhavn: Gottman Friderich Kisel.
- Lehtisalo, T. 1936: *Über die primären ururalischen Ableitungssuffixe*. Suomalais-Ugrilaisen Seuran Toimituksia 72. Helsinki: Suomalais-Ugrilainen Seura.
- 1956: *Juraksamojedisches Wörterbuch*. Lexica Societatis Fenno-Ugricae XIII. Helsinki: Suomalais-Ugrilainen Seura.
- Leino, Pentti 1989: Paikallissijat ja suhdesääntö: kognitiivisen kieliopin näkökulma. – *Virittäjä* 93: 161–219.
- 1990: Spatial relations in Finnish: a cognitive perspective. – Ingrid Almqvist, Per-Erik Cederholm & Jarmo Lainio (eds.), *Från Pohjolas pörten till kognitiv kontakt. Vänskrift till Erling Wande den 9 maj 1990*. Stockholm studies in Finnish language and literature 6. Stockholm. 117–152.
- 2001: Henkilöviitteinen allatiivi. – Leino, Pentti & Herlin, Ilona & Honkanen, Suvi & Kotilainen, Lari & Leino, Jaakko & Vilkkumaa, Maija 2001: *Roolit ja rakenteet*.

- Henkilöviitteinen allatiivi Biblian verbikonstruktioissa*. Suomalaisen Kirjallisuuden Seuran toimituksia 813. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Levinson, Stephen C. 2003: *Space in language and cognition. Explorations in cognitive diversity*. Cambridge: Cambridge University Press.
- Lönnrot, Elias 1841: Bidrag till Finska Språkets Grammatik. (Forts. fr. 4:de Häftet.) – *Suomi* I: 5: 29–47. Helsingfors.
- LW = Kettunen, Lauri 1938: *Livisches Wörterbuch mit grammatischer Einleitung*. Lexica Societatis Fenno-Ugricae V. Helsinki: Suomalais-Ugrilainen Seura.
- Mägiste, Julius 1928: Eräitä liiviläisiä possessiivisuffiksin jäännöksiä. – *Virittäjä* 32: 285–287.
- Maslova, Elena 2003: *A Grammar of Kolyma Yukaghir*. Mouton Grammar Library 27. Berlin – New York: Mouton de Gruyter.
- Merimaa, Heidi 2002: *Adpositiitit suomen vanhoissa kieliopeissa*. Pro gradu -tutkielma. Turun yliopiston suomalaisen ja yleisen kielitieteen laitos. Turku.
- Mikola, Tibor 1975: *Die alten Postpositionen des Nenzischen (Juraksamojedischen)*. Den Haag – Paris: Mouton / Budapest: Akadémiai Kiadó.
- Moisio, Arto & Saarinen, Sirkka 2008: *Tscheremissisches Wörterbuch*. Aufgezeichnet von Volmari Porkka, Arvid Genetz, Yrjö Wichmann, Martti Räsänen, T. E. Uotila und Erkki Itkonen. Lexica Societatis Fenno-Ugricae 32, Kotimaisten kielten tutkimuskeskuksen julkaisuja 151. Helsinki: Suomalais-Ugrilainen Seura – Kotimaisten kielten tutkimuskeskus.
- MW = *H. Paasonens Mordwinisches Wörterbuch*. Zusammengestellt von Kaino Heikkilä. Bearbeitet und herausgegeben von Martti Kahla. Lexica Societatis Fenno-Ugricae XXIII. Helsinki: Suomalais-Ugrilainen Seura 1990–1999.
- Nickel, Klaus Peter 1994: *Samisk grammatikk*. Kárášjohka: Davvi Girji.
- Nielsen, Konrad 1979 [1932–1962]: *Lappisk (samisk) ordbok. Grunnet på dialektene i Polmak, Karasjok og Kautokeino*. Oslo: Universitetsforlaget.
- Niemi, Jaana & Mosin, Mihail 1995: *Ersäläis-suomalainen sanakirja*. Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 48. Turku: Turun yliopisto.
- Nikolaeva, Irina 2006: *A Historical Dictionary of Yukaghir*. Berlin – New York: Mouton de Gruyter.
- Nyikolajeva, Irina 2000: *Chrestomathia jucagirica*. Urálsztikai Tanulmányok 10. Budapest: ELTE BTK, Finnugor Tanszék.

- Oinas, Felix J. 1961: *The development of some postpositional cases in Balto-Finnic languages*. MSFOu 123.
- Ojutkangas, Krista 2005: Viittauskehykset ja tarkastelunäkökulma – miten sijaintia perusakseleilla kuvataan? – *Virittäjä* 109: 525–551.
- Pajusalu, Elna 1957a: Soome-ugri *l*-käänetest. – *Emakeele Seltsi aastaraamat* 3: 159–172.
- 1957b: Ülevaade läänemere keelte ablatiivi funktsioonidest. – *Eesti NSV Teaduste Akadeemia Toimetised VI. Ühiskonnateaduste seeria* 2. 133–153.
- 1958a: Adessiivi funktsioonid eesti murretes ja lähemates sugulaskeeltes. – *Keel ja Kirjandus* 4–5/1958: 246–258.
- Pajusalu = Паюсалу, Э 1958: *Внешнеместные падежи в прибалтийско-финских языках (функции падежей)*. Автореферат диссертация на соискание ученой степени кандидата филологических наук. Таллин: Академия наук Эстонской ССР, Институт языка и литературы.
- Pajusalu, Elna 1960: Läänemere keelte allatiivi funktsioonid. – *Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituudi uurimused* 5: 88–116.
- Papp, István 1968: *Unkarin kielen historia*. Tietolipas 54. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Petraeus, Æschillus 1649: *Linguae Finnicæ brevis institutio*. Aboæ: Petrus Wald.
- Plank, Frans 2015: Time for change. – Carlotta Viti (ed.), *Perspectives on Historical Syntax*. Amsterdam – Philadelphia: John Benjamins. 61–91.
- Qvigstad, J. K. 1881: Beiträge zur Vergleichung des verwandten Wortvorrathes der lappischen und der finnischen Sprache. – *Acta Societatis Scientiarum Fennicæ* 12: 113–240.
- Rask, Rasmus 1832: *Ræsonneret lappisk Sproglære efter den Sprogart, som bruges af Fjældlapperne i Porsangerfjorden i Finmarken. En Omarbejdelse af Prof. Knud Leems Lappiske grammatica*. København: J. H. Schubothes Boghandling.
- Rätsep, Huno 1979: *Eesti keele ajalooline morfoloogia. II. Õpivahend eesti filoloogia osakonna üliõpilastele*. Tartu: Tartu Riiklik Ülikool.
- Ravila, Paavo 1935: Die stellung des lappischen innerhalb der finnisch-ugrischen sprachfamilie. – *Finnisch-Ugrische Forschungen* 23: 20–65.
- 1958: Die Ursprache als Grundbegriff der Sprachgeschichte. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 60,6: 1–15.
- Rédei (Radanovics), Károly 1962: *Die Postpositionen im Syrjänischen unter Berücksichtigung des Wotjakischen*. Budapest: Akadémiai Kiadó.

- Rédei, Károly 1996: Zu der Geschichte des PU-PFU Kasussystems. Die Rolle der Koaffixe in der Herausbildung der Deklination. – Lars-Gunnar Larsson (ed.), *Laponica et uralica. 100 Jahre finnisch-ugrischer Unterricht an der Universität Uppsala. Vorträge am Jubiläumssymposium 20.–23. April 1994*. Studia Uralica Upsaliensia 26. Uppsala. 257–271.
- Renvall, Gustaf 1840: *Finsk Språklära, Enligt den rena Vest-Finska, i Bokspråk vanliga Dialecten*. Åbo: Christ. Ludv. Hjelt.
- Saarinen, Sirkka 2005: Mordwinisch *langollanga*. – *Finnisch-Ugrische Mitteilungen* 28/29: 321–329.
- Salminen, Tapani 1998: Nenets. – Daniel Abondolo (ed.), *The Uralic languages*. London – New York: Routledge. 516–547.
- 2002: Problems in the taxonomy of the Uralic languages in the light of modern comparative studies. – *Лингвистический бенедел: сборник статей к 70-летию А. И. Кузнецовой*. Москва: Издательство Московского университета. 45–55.
- 2014: Suomalais-samojedilaisia muotovertailuja. – Nobufumi Inaba, Jorma Luutonen, Arja Hamari & Elina Ahola (eds.), *Juuret marin murteissa, latvus yltää Uraliin. Juhlakirja Sirkka Saarisén 60-vuotispäiväksi 21.12.2014*. Suomalais-Ugrilaisen Seuran Toimituksia 270. Helsinki: Suomalais-Ugrilainen Seura. 289–300.
- Sammallahti, Pekka 1977: *Norjansaamen Itä-Enontekiön murteen äänneoppi*. Suomalais-Ugrilaisen Seuran Toimituksia 160. Helsinki: Suomalais-Ugrilainen Seura.
- 1988: Historical Phonology of the Uralic Languages. – Denis Sinor (ed.), *The Uralic Languages. Description, History and Foreign Influences*. Leiden – New York – København – Köln: E. J. Brill. 478–554.
- 1998: *The Saami Languages. An Introduction*. Kárášjohka: Davvi Girji.
- Serebrennikov = Серебренников, Б. А. 1962: Из истории падежной системы пермских языков. – В. И. Лыткин, К. Е. Майтинская & Б. А. Серебренников (eds.), *Вопросы финно-угорского языкознания. К 70-летию со дня рождения члена-корреспондента АН СССР Д. В. Бубриха*. Москва – Ленинград: Издательство Академии Наук СССР. 9–32.
- = Серебренников, Б. А. 1963: *Историческая морфология пермских языков*. Москва: Издательство Академии Наук СССР.
- Setälä, E. N. 1890: *Yhteissuomalaisten klusiilien historia. Luku yhteissuomalaisesta äännehistoriasta*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Sjögren, And. Joh. 1828: *Anteckningar om församlingarne i Kemi-Lappmark*. Helsingfors.

- Sjögren, Joh. Andreas & Wiedemann, Ferdinand Joh. 1861 = *Joh. Andreas Sjögren's Livische Grammatik nebst Sprachproben*. Im Auftrage der Kaiserlichen Akademie der Wissenschaften bearbeitet und mit einer historisch-etnographischen Einleitung versehen von Ferdinand Joh. Wiedemann. Joh. Andreas Sjögren's gesammelte Schriften. Band 2. Theil 1. St. Petersburg: Kaiserliche Akademie der Wissenschaften.
- SSA = Itkonen, Erkki & Ulla-Maija Kulonen (eds.) 1992–2000: *Suomen sanojen alkuperä. Etymologinen sanakirja*. Suomalaisen Kirjallisuuden Seuran toimituksia 556, Kotimaisten kielten tutkimuskeskuksen julkaisuja 62. Helsinki: Kotimaisten kielten tutkimuskeskus – Suomalaisen Kirjallisuuden Seura.
- Stockfleth, N. V. 1840: *Grammatik i det lappiske Sprog, saaledes som det tales i Norsk-Finmarken. Förste Del. Bogstav- og Formlæren*. Christiania: Chr. Gröndahl.
- Suoniemi-Taipale, Inga 1994: *Itämerensuomalaisten kielten prolatiivi*. Suomalaisen Kirjallisuuden Seuran toimituksia 616. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Szinnyei, Josef 1910: *Finnisch-ugrische Sprachwissenschaft*. Leipzig: Göschen'sche Verlagshandlung.
- Tauli, Valter 1952: Bemerkungen zum Ursprung der uralischen Kasussysteme. – *Ural-Altäische Jahrbücher* 24: 3–4: 27–41.
- 1956: The origin of affixes. – *Finnisch-Ugrische Forschungen* 32: 170–225.
- Tereščenko = Терещенко, Н. М. 1965: *Ненецко-русский словарь*. Москва: Советская Энциклопедия.
- Thordarson, Fridrik 2009: *Ossetic grammatical studies*. Edited by Sonja Fritz. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Tikka, Toivo 1992: *Vepsän suffiksoituneet postpositiot. Kieliopillisiin sijoihin liittyvä suffiksoituminen*. Studia Uralica Upsaliensia 22. Uppsala.
- UEW = Rédei, Károly (unter Mitarbeit von Marianne Bakró-Nagy, Sándor Csúcs, István Erdélyi, László Honti, Éva Korenchy, Éva K. Sal und Edit Vértes) 1988–1991: *Uralisches etymologisches Wörterbuch. 1–3*. Wiesbaden: Otto Harrassowitz.
- Uotila, T. E. 1945: Sijapäätteiden syntyhistoriaa. – *Virittäjä* 49: 327–336, 499–501.
- Vainik, Ene 1995: *Eesti keele väliskohakäänete semantika kognitiivse grammatika vaatenurgast*. Tallinn: Eesti Teaduste Akadeemia Eesti Keele Instituut.
- Wichmann, Yrjö 1913–1918: Beiträge zur tscheremissischen Nominalbildungslehre. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 30,6: 1–42.

- Virtaranta, Pertti 1962: Über die Partikeln auf *-li* in den ostseefi. Sprachen. – *Commentationes Fenno-Ugricae in honorem Paavo Ravila*. Suomalais-Ugrilaisen Seuran Toimituksia 125. Helsinki. 625–669.
- Ylikoski, Jussi 2005: Uusia näkökulmia suomen infiniittisiin rakenteisiin. – *Virittäjä* 109: 611–622.
- 2006: Fuomášumit sámegiela adposišuvnnaid funkšuvnnain: ovdamearkan *alde-* ja *ala-* postposišuvnnaid ii-lokála geavaheapmi. – *Sámi diedalaš áigečála* 1/2006: 39–61.
- 2011: A survey of the origins of directional case suffixes in European Uralic. – Seppo Kittilä, Katja Västi & Jussi Ylikoski (eds.), *Case, animacy and semantic roles*. Amsterdam – Philadelphia: John Benjamins. 235–280.
- 2016: The origins of the western Uralic *s*-cases revisited: historiographical, functional-typological and Samoyedic perspectives. – *Finnisch-Ugrische Forschungen* 63: 6–78.

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