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ORATIONES PLENARIAE

Contents

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Similarity. Some considerations concerning complex societies.

(Extended abstract)

I

The point of departure for these considerations (*Überlegungen*) is our international context, in which we are witnessing social transformations, which are still characterized by two moments.

Relatively homogeneous societies are developing into more complex social formations. An example would be the EU. On the other hand, existing complex societies such as India are being subjected to tensions, which threaten their plurilingual, pluricultural composition.

An instructive reaction to such development with reference to India may be found in this piece from the Indian newspaper "The Hindu" (contrary to the name this newspaper is not a supporter of Hindutva but a liberal oppositional newspaper like the SZ in Germany):

Under the title "Celebrate similarities, overlook differences", the author Sarita Talwai writes:

> "Simple wisdom from a band of migrant workers in busy Bengaluru locality: Epiphanies rarely visit sceptics. I think I had one last week. A few of my kurtas needed alterations, so I visited a lane in Jaynagar, a Bengaluru locality famous for its fast and efficient tailors. I stopped in front of a trio who appeared to be relatively free, and handed over my stuff to one of them. A quick assessment of the job and he got down to work, warning me that he would take at least an hour to complete it. I contemplated visiting a restaurant for some coffee when he pulled out a low, rickety stool from behind the bags of clothes and offered me a seat. I grabbed it because I could sense a story that was waiting to be told.

> The tailors seemed like old friends. There was a peace in their silences, a generosity in their sharing of hooks and threads and buttons. They wore their faith on their face, the hennaed beard and the orange tilaks complementing each other. The tea boy arrived with his cutting chai and I was offered a glass of hot tea.
>
> It is very easy to warm to people over a masala chai. That shared moment emboldened me to ask them about their friendship. About professional rivalry. About their faith. And about their idea of India. They had been friends for more than 35 years. They all hailed from a little town near Kalburgi. Over years, each of them had developed specialisations. Ladies clothes, blazers and suits, and jeans and western wear, respectively. No encroachment, no rivalry. They shared a love for spicy Gulbarga Tahari (a kind of biryani), and their faith was a matter between them and their maker. India, according to them, was Wadi, the sleepy town they had left behind. Bengaluru could never win them over.
>
> I was struck by the wisdom they dispelled so easily. Celebrate the similarities. Overlook the differences. Simple.
>
> So while the rest of the country, armed with righteous outrage and obfuscating idioms, had transformed into war zones, I found solace in this quiet oasis where the only sound was the whirring of the sewing machines, seaming together the fabric of our society, one stitch at a time." (*The Hindu:* December 29, 2019)

The metaphor of stiching, weaving, seaming a fabric is very reminiscent of the poetry of the medeaval Indian saint-poet Kabir and, of course of Wittgenstein's idea of culture and its weave. Wittgenstein writes that we can expand our concept of "something" *(etwas)*...

> "wie wir beim Spinnen eines Fadens Faser an Faser drehen. Und die Stärke des Fadens liegt nicht darin, daß irgend eine Faser durch seine ganze Länge läuft, sondern darin, daß viele Fasern einander übergreifen. Wenn aber Einer sagen wollte: 'Also ist allen diesen Gebilden etwas gemeinsam, – nämlich die Disjunktion aller dieser Gemeinsamkeiten' – so würde ich antworten: hier spielst du nur mit einem Wort. Ebenso könnte man sagen: es läuft ein Etwas durch den ganzen Faden, – nämlich das lückenlose Übergreifen dieser Fasern."

This way of looking at culture is one of the unique contributions of the traditions of the Habsburg Monarchy.

II

It is remarkable how our image of the Habsburg Monarchy (and the Ottoman Empire) has changed in the past decade. Instead of being treated as an aberration and an exception to the "western" model or norm of modernity based on homogeneity, monoglossia, democratically progressive modernity, Habsburg was "bewilderingly" complex and this made it comparable to the world of India as it was appropriated by its West European conquerors. The change in our analytic framework (see Pieter Judson's *History of Habsburg*) however makes it possible to see complex heterogenous societies as "laboratories of modernity" (Moritz Csáky). The reassessment of the Habsburg tradition is a result of the work done by Moritz Csáky, Johannes Feichtinger, Heidemarie Uhl, Sabine Müller, Andrea Seidler, Wolfgang Müller-Funk, Károly Kókai, Karl Acham, Christoph Leitgeb, Andras Balogh, Peter Stachel, Klaus Hödl, Susanne Korbel and a large group of scholars from Vienna, Graz and Budapest.

I suggest that a comparative reference to the cultural and socio-political archive of the Monarchy and Central Europe helps us to understand our contemporary predicaments.

III

In this lecture I will mainly touch upon three figures: 1. Joseph Freiherr von Hammer-Purgstall; 2: Bernhard Bolzano; and 3. Hugo von Hofmannsthal through the lens of Hermann Broch's study *Hofmannsthal und seine Zeit.*

Firstly, Joseph Freiherr von Hammer-Purgstall's "Vortrag über die Vielsprachigkeit. Festvortrag zur feierlichen Eröffnungssitzung der kaiserl. Akademie der Wissenschaften, Wien 1852", may well be one of the most remarkable documents concerning plurilingualism and polyglossia in Europe. Hammer-Purgstall refers to *Pfingsten* or the *Pfingstfest*, "als des eigentlichen Festes der Polyglottie oder Vielsprachigkeit":

> "Die Vielsprachigkeit ist in Österreich durch die staatlichen Verhältnisse zur Nothwendigkeit geworden. Der lateinische Spruch: 'Quot linguas calles, tot homines vales' erhält weiteren und höheren Sinn durch die Anwendung auf die politischen Verhältnisse Österreichs. Er sagt: Je mehr du Sprachen des österreichischen Kaiserthums verstehst, desto mehr wirst du ein ganzer Österreicher."

How much of this attitude has been lost by technocratic reforms associated with Bologna in the last years!

Then, secondly, I will draw your attention to: the importance of the achievements of the philosopher, mathematician and Catholic priest Bernhard Bolzano, whose ethical writings were far ahead of their time in his attempt to exhort his academic charges to understand plurilingualism, social exchange and their relevance for peace: He writes in his Exhortations:

> "The more successful we are in this, the more Germans we enable to learn Czech, and the more Czechs to learn German, the more we shall diminish or even remove the second obstacle to unity in our fatherland, namely, the differences in ways of thought, ideas and attitudes prevailing between the Czech and German inhabitants of our country. It is no wonder that people who, despite living so close to one another, cannot understand each other's language diverge greatly from one another in their ways of thought, ideas and attitudes. For they lack the most important means of assimilation, namely, social intercourse. It is the mutual exchange of opinions that occurs in frequent contact, listening to the reasons for these opinions, and the counterarguments that can be raised against them, it is seeing different behaviour more often, and the often habitual but no less effective imitation of it that gives this interaction the force of assimilation. The more often and the more easily the citizens of one and the same country are able to interact, the more they become alike in their ways of thought and customs. In addition, people who can speak the same language can maintain a kind of interaction even when separated by great distance, since they are able to communicate their views to others by means of written essays. Add to this that people who speak the same language generally obtain their ideas and knowledge from the same sources, since the same book that one has read with profit and

> praised to the other can also be read by him and used as a guide. They will accordingly be instructed by one teacher, and hence be of one mind. How then could unity and community fail to prevail among them? But perhaps hearing this, you will yourselves recall, my friends, that there is a way to communicate the ideas and attitudes of one part of the people to those who have not yet learned their language well enough. This is translating into the other language the writings that are most widely read by one group and have the greatest influence on their education, in order to make them accessible to the others. It brings me great joy to be able to say that in this gathering there are some who have already thought of this salutary activity, and indeed have already set to work on it."

Terms like "becoming alike" or *Verähnlichigung* are reminders that Similarity or *Ähnlichkeit* are processes!

And thirdly and finally I will refer to another extraordinary work from the Austrian heritage: Hermann Broch's study "Hofmannsthal und seine Zeit". It is among other things also one of the many narratives that have emerged out of the history of migration and exile. Hermann Broch wrote it in the last years of his exile in the USA and – as Hannah Arendt has noted – it is also an autobiographical work which deals with sensitivity and mild irony also with problems of culture and diversity which could as well be applicable to other histories of migration such as those of the Indian communities to the West.

Only a few linguistic alterations would be required to retell the story of the successful assimilation of the Jewish merchant Isaak Löw Hofmann who migrated from Prague to in 1788. Emperor Joseph's *Toleranz-Edikte* had made such mobility possible. A successful merchant, Hofmann is titled in 1827. He is an influential member of the Cultural Association of the Viennese Jews. Broch observes that this symbiosis between neo-Austrianness and Jewishness was typical of the generation of Isaak Hofmann. They were accepted by Austrian upper class society not mainly because of their economic success but precisely because they were also Jews and as such represented a degree of exoticism and thus catered to a romantic inclination for the "international, foreign, exceptional" which suited the Viennese aristocracy of those days.

This romantic phase ended with the growing stream of Jewish immigrants. The exotic figures became socially and economically undesirable aliens; or as the German term puts it more graphically: *Fremdkörper*, foreign bodies. Assimilation now meant withdrawal from the Jewish heritage and this is the road taken by Isaak's son August who marries a Catholic patrician's daughter from Milan. This, as Broch notes, is the beginning of a new dream of assimilation: By crossing over to the non-Jewish camp August seeks to ensure a permanent social place for himself and his future family in the circles of the lower aristocracy. But this, as Broch acutely observes, is not possible in a socially stratified society in which the exotic is tolerated but not the changeling. August and his family are absorbed into the growing bourgeoisie with the result that it is also dependent on the fluctuations of the capital market.

August's son Hugo (the poet's father) is dependent on his own earning ability as a lawyer and this is also the moment of complete assimilation. This representative of the third generation is half Catholic and in terms of socialisation in no way obviously Jewish. On the contrary, he is completely a Viennese for whom the Burgtheater and the Bösendorfer-Saal and the summer vacation in Fuschl are more important than his professional honours, and his political ideals are rooted in "Kaiser-und Österreichtreue". The elder Hugo's son could well have continued on this trajectory and become a *Hofrat*. Instead, he became one Austria's greatest modern writers, perhaps as Broch emphasises, because of the fortunate *Mischungsqualität* of the inheritance of Hugo von Hofmannsthal: Swabian, Austrian, Italian, Jewish; an unfortunate mixture from the point of view of normal conditions, of course as Broch also adds, perhaps as an aside on the laws of racial purity enacted by the Nazis. Hugo von Hofmannsthal was also a *Wunderkind*.

Hugo von Hofmannsthal and his times concerns us today in our contemporary world of wars and migration. And it is important that Broch closes his narrative of assimilation by another acute observation. This concerns what he considers the psychological side of the story. The collective narcissism of society expresses itself as national consciousness, as class consciousness and this can always be instrumentalised by politics. National conquests and class victories are subsumed in mythological formations in the narcissistic group memory and disappear into

commemorative ceremonies and monuments. In the case of stable upper classes what prevails is the "aesthetic" pride which articulates itself as the style of the story. In everyday life, in art and culinary accomplishment.

Matters are more complicated with the "conquered" of history. They assimilate the style of the upper classes and add to it pride of the achievement of assimilation (*Assimilationsleistung*). Broch interprets this as a compensation mechanism which deals with inferiority complexes. These are not obliterated but rather conserved "auf daß hierdurch die Kompensationsfreude sich erhöhe".(93) This narcissism of the assimilated or as Broch also puts it renegade minorities outstrips the narcissim of the upper classes, it is full of conscious self irony, which the ruling classes totally lack.

IV

The Hofmannsthal-story sounds like a fairy tale. And I will end by reflecting on the lessons we could draw from this. Things did not go wrong for the Hofmannsthals. But for Hermann Broch they did. Fascism ended also his version of the fairy tale of integration.

In our own times Pierre Bourdieu and Gabrielle Balázs relate a different story of Antonio and Linda Demoura, a Portuguese couple who worked for some 20 years in France before "the spell broke". Illness and accident forced them out of the labour market. "Out of work, deserted by everybody, they lost the illusion of being 'integrated' into (good) French society." (p.361) They discover that in spite of being a "textbook example" of a succesful "integration" their stability is fragile. Contingent chance circumstances can expose them to the uncertainities of life in capitalist societies. This applies particularly to the social coordinates they can fall back upon. Such model immigrants can discover that they have overestimated the value of integration.

> "Their distress and bewilderment become all the greater since it is only when things go wrong that they discover that they do not enjoy the statutory guarantees or the network of family or friendly relationships that ensure for 'real French people' (or so they believe) the ultimate safety net."

V

Comparative reflections between India and Habsburg, the web of similarities makes it possible to see the South Asian migration disputes, the Citizenship act and the homogenization trends in India and the resistible destruction of its heterogenization in this comparative light. It also helps us to change the terms of discussion and bringing questions of metamorphosis, similarity and overlapping as factors in the history of migration which are increasingly becoming more important in the process of establishing and defending complex societies.

Katalin É. Kiss

Why non-finite subordination prevails in the Uralic languages

1. Introduction

Prior to Indo-European influence, the Uralic languages did not use finite subordination. Non-finite subordination still prevails in the Uralic languages of Russia. Finite subordination is spreading parallel with the growing influence of Russian, often employing complementizers borrowed from Russian. The documented history of Hungarian beginning in the 12th century shows the gradual decrease of non-finite subordination, and the suppletion of most types of it by finite subordination. Similarly to Hungarian, Finnish and Estonian have also proceeded long on the way from non-finite to finite subordination. This study aims to answer the question what motivates the dominance of non-finite subordination in the conservative Uralic languages, and why non-finite subordination has been losing ground recently. After illustrating the rich system of non-finite subordination in a Uralic language in section 2, the paper will examine three hypotheses. Section 3 raises (and discards) the possibility that finite subordination creates a structurally and functionally more complex structure than non-finite subordination, hence its appearance represents language development. Sections 4.1 and 4.2 discuss two hypotheses which relate the shift from non-finite to finite subordination to the contact-induced change of the basic word order from SOV to SVO. Section 4.1 weighs the merits and problems of a formal explanation of the correlation between word order and finiteness: the Final-Over-Final Condition (FOFC) of Biberauer, Holmberg, and Roberts (2008, 2009, 2014). Section 4.2 examines an explanation based on perceptual economy: the Minimal Domain Hypothesis of Hawkins (1994; 2004; 2009; 2013). Section 5 is a Conclusion.

2. Subordination in Uralic

The shorter period of Indo-European influence a Uralic language has been subject to, the more properties of Proto-Uralic it has preserved. At present, the proportion of non-finite subordination is highest among the Samoyedic and Ob-Ugric languages in Siberia; but non-finite subordination is still dominant among the Permic and Volgaic languages, as well.

I will illustrate the preponderance of non-finite subordination with data from a lesser-known Uralic language, Old Hungarian. At the beginning of its documented phase in 1192, Old Hungarian had already passed a period of massive Slavic influence owing to a local Slavic population absorbed by the Hungarian tribes settling in the Carpathian Basin in 896, but it still preserved a great variety of non-finite subordinate clauses (Dékány 2014). Since that time, the proportion of non-finite subordination has been gradually decreasing.

Old Hungarian displays an array of infinitive, gerund, converb, and participle constructions similar to those attested in the most conservative Uralic languages (Károly 1956; Dékány 2014; Bacskai-Atkari and Dékány 2014). Infinitive constructions include subject control (1), object control (2), dative control (3) and ablative control (4) constructions, as well as infinitives with an independent dative subject (5). Whether the subject of the infinitive is controlled or independent, the infinitive can agree with it – see (2) and (5). Default agreement, i.e., 3rd person agreement irrespective of the person and number of the subject, is also common (4) (Dékány 2012). (The fact that the controlled subjects of non-finite clauses can elicit verbal agreement blurs the *PRO-pro* distinction, therefore – following Dékány (2014) – I avoid both of these labels and represent the empty subjects of non-finite verbs as *pron*.) Notice that the infinitive phrases cited in (1)–(5) all have (S)OV word order; furthermore, the object of the infinitive in (1a) is caseless. These features inherited from the Proto-Ugric period survived longer in non-finite projections than in finite main clauses and in the newly emerging finite embedded clauses.

(1)a. pro$_i$ *ne fordo'l-'l-on* *m ̄g* [pron$_i$ ***ǫ kǫntos-ǫ*** ***fel-uèn-ni***]
not turn-SBJV-3SG back he gown-3SG on-put-INF
'he should not turn back **to put on his gown**'
(Müncheni C. 30r[1])

b. *ne* *akar-ia-toc* pro$_i$ [pron$_i$ ***ez-t*** ***ten-ne-tec***$_i$]
NEG want-SBJV-2PL this-ACC do-INF-2PL
'You shouldn't want **to do this**' (Bécsi C. 1)

(2) *èn* *èrèźt-ett-èlec* *tütǫk-et*$_i$ [pron$_i$ ***arat-no-tok***$_i$]
I send-PST-1SG you.PL-ACC harvest-INF-2PL
'I sent you **to harvest**' (Müncheni C. 88r)

(3) *Es* *mico* *parāncǒl-t* *uol-na* *az* *gǫlèkezètn*^{c}$_i$
and when order-PRF.3SG be-COND the crowd-DAT

[pron$_i$ ***le-ül-ni*** ***az zena-n***]
down-sit-INF the grass-on
'And when he ordered the crowd **to sit down on the hay**'
(Müncheni C. 21r)

(4) *ffǫld-ǫn sohha* *ne* *las-s-onc* *te* *tüled*$_i$
earth-on never not see-SBJV-1PL you ABL

[pron$_i$ ***fia-t*** ***zül-ni-e***]
son-ACC bear-INF-3SG
'If only we shall never see on Earth [of] you **to bear a son**'
(Guary C. 103)

(5) *Hewsag* [***nek-thek*** ***wylaagh*** ***elewth*** ***fel*** ***kel-ne-thek***]
vanity DAT-2PL light before up rise-INF-2PL
'It is vanity **for you to get up before daylight**.'
(Festetich C. 85)

[1] The letter *r* stands for *recto* 'right side', *v* stands for *verso* 'back side'.

Old Hungarian also uses gerund-like non-finite clauses derived by the suffix *-t* (6) and the suffix *-ás/és* (7). The subject of the gerund is a caseless or dative-marked, overt or pro-dropped possessor. In the case of *t*-gerunds, it elicits agreement on the gerund. The word order is in most cases SOV.

(6)a. pro$_i$ *vetkez-t-em* [pron$_i$ ***zent*** ***lelek-nek*** ***het***
sin-PST-1SG holy spirit-DAT seven

ayandek-at ***nem*** ***kevan-t-ō-ba***]
gift-ACC not wish-GER-1SG-IN
'I sinned **in not wishing the seven gifts of the Holy Spirit**'
(Virginia C. 6v)

b. *Es ew mend ez meg mond-ot czudakott assys-ba*
and he all this PRT say-PTCP miracle-PL-ACC Assisi-in

lakoz-o sok barat-ok-nak elewte meg mond-ott-a-ual-a
liv-ing many brother-PL-DAT before PRT say-PRF-3SG-be-PST

[***Ew*** ***tars-y*** ***ott*** ***nem*** ***vol-t-ok-ban***]
he companion-PL.3SG there not be-GER-3PL-in
'And he related these said miracles to many brothers living in Assisi, **his companions not being there**' (Jókai C. 69)

(7) pro$_i$ *béé fon-aa az ǫ hay-a-t, Svveg-nek alay-a,*
PRT plait-PST.3SGthe she hair-3SG-ACC cap-DAT under-3SG

[***az*** pron$_i$ ***ǫt-eth*** ***meg*** ***ńer-ées-re***]
the he-ACC PRT win-GER-to
'she plaited her hair under the cap, **so as to win him**'
(Székelyudvarhelyi C. 47v)

Old Hungarian abounds in converbial subordinate clauses – derived by *-atta/ette, -va/ve* or *-ván-vén*. Converbial clauses can have a controlled *pron* or an independent overt subject, and *-atta/ette* and *-ván/vén* participles can display agreement. Notice the caseless object in (9).

(8) *es* pro$_i$ *lat-a-c* *azok-at*$_j$ [pron$_{i/js}$ ***elmen-ette-c***]
and see-PST-3PL those-ACC leave-PTCP-3PL
'and they saw those **leaving**' (München C. 41v)

(9) [***ky*** pron$_i$ ***hal-uan***] *zent* *fferenc*$_i$ *valy-a-uala*
what-ø hear-ptcp Saint Francis have-3SG-be-PST

ew-tett *nagy* *tiztesseg-ben*
he-ACC great honor-in
'**which having heard**, Saint Francis had him in great honor'
(Jókai C. 12)

Old Hungarian uses a variety of participial clauses, among them prenominal participial gap relatives. The gap, coindexed with the nominal modified by the relative clause, can be the subject (10), the object (11), or a possessor (12). In (10a), the object is still caseless. As (11) illustrates, the participle can agree with its subject.

Subject gap:
(10) a. *wr-am* *ysten* *Menyey kyraly* [_$_i$ ***mynden***
lord-1SG god celestial king everything

the-het-ew] *atya* *ysten*$_i$
do-POSSIB-PTCP father god
'My Lord, celestial king, God the Father, **who can do everything**' (Apor C. 134)

b. *Agy-ad* *meg* *ymmar* [_$_i$ ***bewn-e*** ***zan-t***] ember-nak$_i$
give-IMP.2SG back now sin-3SG repent-PTCP man-DAT
'give it back now to that **who repented his sin**'
(Jókai C. 158)

Object gap:

(11) *Es uéged az* [pron ***nek-ọd zọrz-ọtt-em*** _i**]** *Corona-t*$_i$
and take the DAT-2SG obtain-PTCP-1SG crown-ACC
'and take the crown **which I obtained for you**'
(Kazinczy C. 1526)

Possessive gap:

(12) *& ot vala egy* [_i ***kez-e meg aź-ot***] èmber$_i$
& there was a hand-3SG PRF wilt-PTCP man
'and there was a man **whose hand had wilted**'
(Müncheni C. 38r)

É. Kiss (2014) demonstrated the S-curve of the decline of the use of non-finite subordination in Old and Middle Hungarian by comparing the presence of various types of subordination in subsequent Bible translations. Observe, for example, the decreasing number of *-ván/vén* converbial clauses in subsequent translations of St Matthew's Gospel:

(13) *Number of -ván/vén clauses in St Matthew:*

Müncheni Codex	(around 1416):	486
Jordánszky Codex	(around 1516):	322
Károli Bible	(1590):	286

For example, whereas the Müncheni Codex translates Matthew 20:1 with a non-finite subordinate clause (14a), the Jordánszky Codex renders it with a finite clause (14b). The object is caseless in (14a) and case-marked in (14b).

(14)a. [***Ọ kedig è gondol-uan***] *yme vr-nac angal-a*
he conj this think-PTCP lo lord-DAT angel-3SG

ièlen-ec nèk-i alm-a-ban
appear-PST.3SG DAT-3SG sleep-3SG-in (Müncheni C. 18r)

b. [***Mykoron kedeg ezt gondol-na***], *yme vr*
when CONJ this-ACC think-COND.3SG lo lord

yften-nek *anǧal-a* *alm-a-ban* *nek-y* *yelen-ek*
god-DAT angel-3SG sleep-3SG-in DAT-3SG appear-PST.3SG
(Jordánszky C. 357)

'**But while he thought on these things**, behold, the angel of the Lord appeared unto him in a dream'

The decreasing number of prenominal participial relative clauses can be shown by the increasing number of the relative pronouns *ki* 'who', 'what', *mi* 'what' and *mely* 'which', introducing finite post-nominal relatives:

(15) *Number of the relative pronouns meaning 'who', 'what', 'which' in St. Matthew's Gospel*:

Müncheni Codex	(a. 1416):	225
Jordánszky Codex	(a. 1516):	314
Károli Bible	(1590):	330

For example:

(16)a. *& ot* *vala* *egy* [_i ***kez-e*** ***meg*** ***aź-ot***] èmberi
& there was a hand-3SG PRF wilt-PTCP man
(Müncheni C. 38r)

b. *es* *vala* *ot* *egy* *ember,* *[**ky-nek*** ***hew***
and was there a man who-DAT he

kez-e ***meg*** ***az-ot*** ***val-a**]*
hand-3SG PRT wilt-PRF.3SG be-PST
(Jordánszky C. 460)

'and there was a man **whose hand had wilted**'

The finite constructions replacing the SOV non-finite clauses tend to be head-initial, as is illustrated by two translations of the same Biblical sentence, Matthew 24:18, from 1416 and from 1541, respectively:

(17)a. *ne* *fordo'l-'l-on* *m ̄g* [pron$_i$ ***ǫ ko̜ntos-ǫ*** ***fel-uèn-ni***]
not turn-SBJV-3SG back he gown-3SG on-put-INF
'he should not turn back **to put on his gown**'
(Müncheni C. 30r)

b. *hātra* *ne* *ter-i-en* [***hoǵ*** pron ***fel-ve-g-e***
back not turn-SBJV-3SG that on-put-SBJV-3SG

az ***u͡e*** ***o͡ltȯzet-i-t***]
the he clothes-3PL-ACC
'he shall not turn back **to put on his clothes**'
(Sylvester I 38r)

In sum: Old Hungarian still preserves the rich system of non-finite subordination inherited from Proto-Hungarian, Proto-Ugric and Proto-Uralic. The non-finite clauses are mostly SOV, and also have other archaic features, e.g., sporadically we still attest caseless objects. However, the finite patterns of subordination are also present, and they gradually supplant non-finite subordination. The shift from non-finite to finite subordination seems to take place parallel with a shift of basic word order from SOV to SVO.

3. Does finite subordination represent a higher stage of language development than non-finite subordination?

It has been a long-standing – even if not prominent – assumption in the linguistic literature that non-finite subordination is typical of an archaic, (culturally) less developed, less complex state of human language than finite subordination, associated with preliterate societies (cf. Delbrück 1900; Givón 1979; Deutscher 2001; Karlsson 2009; for an overview, see Walkden 2018). [2] This view contradicts the Uniformity Principle of generative linguistic theory, according to which all human languages are

[2] The Historical Grammar of Hungarian, published in 1991, has remarks to that effect, e.g.: "Our language reached in the Proto-Hungarian period the state of development of creating 'independent' complementizers representing a separate grammatical category.' (Juhász 1991: 476)

manifestations of the same, biologically determined Universal Grammar. The Uralic languages also provide empirical evidence against it. As will be shown below, Uralic languages with only non-finite subordination have the same expressive power as languages that also have finite subordination.

A recent study by Wurmbrand and Lohninger (2019) claims that different types of matrix predicates impose different restrictions on the time and the agent of their propositional complement, and these semantic requirements are satisfied by syntactic structures representing different degrees of independence, transparency, integration and complexity.

According to Wurmbrand and Lohninger, languages distinguish up to three complement types. Verbs of communication and cognition such as *say, know, believe*, belonging to the so-called *Attitude* class, are complemented by propositions whose time and agent is independent of the matrix predicate, and which can have their own (interrogative, etc.) operators. Such complements are realized as finite CP projections including a thematic domain, a tense/mood/aspect (TAM) domain, and an operator domain. Modal, aspectual and causative verbs, on the contrary, require the coincidence of the matrix and embedded times, and the identity of the embedded agent with a matrix argument. These predicates, representing the *Tenseless* complementation class, need a complement including a theta domain (a vP) in the least. In English, they are realized as functional heads taking a vP complement in the case of modals, and as verbs selecting an infinitive in the case of matrix predicates like *begin* and *try*. The matrix predicate can also be a mere suffix incorporating the embedded verb.

Attitude complementation and *Tenseless* complementation represent the two endpoints of a scale: *Attitude* complements are the most clausal, the most independent, the most complex, the least integrated, and the least transparent, and *Tenseless* complements are the least clausal, the least independent, the least complex, the most integrated, and the most transparent e.g. for movement or binding relations. Predicates taking an *Irrealis* complement represent an intermediate case: their clausal complement has dependent tense (usually future), determined relative to the matrix time; it can have its own aspect; and it may have either an independent subject, or a subject bound by a matrix argument. Therefore, the complement clause of the *Irrealis* class must include not only a theta-

domain (vP) but also a TAM domain (TP). In English, it tends to be realized as a finite subjunctive clause or as an infinitive.

The three complement types: those having a theta domain but no independent tense and no independent subject; those having a TAM domain with dependent tense, with aspect, and either a bound or an independent subject; and those also having an operator domain, are distinguished in the Uralic languages with no finite complementation, as well. Complements of modal and aspectual predicates, the *Tenseless* class, tend to be realized as infinitives with a controlled *pron* subject – see the Old Hungarian example in (1b) and the Vasyugan Khanty example in (18):

(18) *Mäi* [proni ***onəltəɣəl-tə qat-pa mən-täti***] *əntə koj-l-əm.*[3]
I learn-PTCP house-ALL go-INF not want-PRS-1SG
'I do not want to go to school.'
(Vasyugan Khanty, Filchenko 2007: 166)

Certain aspectual and causative matrix predicates of the *Tenseless* complementation class are realized as suffixes incorporating the embedded verb – see the possibility modal in the Old Hungarian (10a), and the aspectual modal in the Vasyugan Khanty (19).

(19) ***juɣ män-ä waɣ kit-əkət-əs***
(s)he I-LAT money send-INCH-PST.3SG
'(S)he started sending me money.'
(Vasyugan Khanty, Filchenko 2007: 447)

Clausal complements with dependent tense (describing events anterior (10b, 11, 20a), simultaneous (8, 10, 20b), or posterior (1a) with respect to the time of the matrix predicate), and with either an independent subject (20b) or a subject bound by a matrix argument (20a), are represented by a great variety of participial, gerundial, and converbial clause types. The independent subject of the non-finite clause tends to be formulated as a possessor, eliciting possessive agreement on the non-finite verb (20b).

[3] I keep the spelling of my sources.

(20)a. [pron$_i$ ***xo:ll-əman***] pro$_i$ *u:r-na* *man-əs*
cry-CNV forest-LOC go-PST.3SG
'After having cried, he went to the forest.' (Northern Khanty, Nikolaeva 1999: 46)

b. [***naŋ*** ***o:l-t-e:n*** ***e:lti***] *ma* *u:r-na* *jax-s-əm*
you sleep-PTCP-2SG to I forest-LOC walk-PST-1SG
'While you were sleeping, I went to the forest.'
(Northern Khanty, Nikolaeva 1999: 48)

The question remains how the Uralic languages that have no finite subordination formulate clausal complements with independent tense and modality and with an operator domain of their own. As shown by Szeverényi and Sipőcz (2019), and the grammars of Khanty (Nikolaeva 1999), Eastern Khanty (Filchenko 2007), and Tundra Nenets (Nikolaeva 2014), the conservative Uralic languages, among them Nganasan and Mansi, use parataxis, i.e., the juxtaposition of two finite sentences, which are integrated semantically, and presumably on the level of prosody, as well. Observe a Nganasan example involving the reporting of a command, and a Mansi example involving the reporting of a question.

(21)a. *D'ad'üru* *munu-ntu:* [***S'eri-ŋiri?***]
D'ad'üru say-PRES.3SG bring-IMP.PL2
'D'ad'üru says that you should bring him in.'
(Nganasan, Szeverényi and Sipőcz 2019: 132)

b. *āśe-n* *kitiɣl-awe:* [***Piɣkʷe, manəriɣ*** ***ĺuńś-eɣn?***]
father-LOC ask-PASS.3SG little.boy why cry-2SG
'The father asked the little boy why he was crying.'
Lit.: 'It was asked by the father: Little boy, why are you crying?'
(Mansi, Szeverényi and Sipőcz 2019: 136)

The headless relatives with independent tense and independent subject of languages with finite subordination correspond to juxtaposed finite clauses with no subordinating morpheme in the conservative Uralic languages. Compare the same sentence of an Old Hungarian and a Middle Hungarian

Bible translation in (22a,b). The relative clause of the Middle Hungarian translation is expressed by an independent clause with no subordinator in the Old Hungarian version.

(22)a. [***Vala-ki*** ***akar-and*** ***nag-ob*** ***len-ni***]
some-one want-FUT.3SG great-COMPAR be-INF

lez-èn tü zolga-toc.
be-3SG you servant-2PL
'Who [*lit.* Someone] wants to be greater, he will be your servant.'
(Old Hungarian, Müncheni C. 47r)

b. [***A' ki*** ***akar*** ***ti*** ***kőzte-tec*** ***nagy*** ***len-ni***,]
who want.3SG you among-2PL great be-INF

ti szolgá-toc lé-gy-en.
you servant-2PL be-SBJV-3SG
'Who wants to be chief among you, he shall be your servant.'
(Middle Hungarian, Károli 41v)

Conditional clauses represent another subordinate clause type with an independent subject and independent tense. In conservative Uralic languages, e.g. in Synja Khanty, they appear as juxtaposed finite clauses containing a discourse particle with no fixed structural position:

(23) [*Xoj ɔːməs-ti taxaj-əl eːlti jeːʃa* ***ki*** *puŋla*
someone sit-PTCP place-3SG from little if side.to

nʲoxlə-l,] *moxti kaːsʲal-əl-aj-ən.*
move-PRS.3SG immediately notice-PRS-PASS-2SG
'If someone moves a bit from his sitting place to the side, you are immediately noticed.' (Synja Khanty, Steinitz 1975, 1/106))

In the extinct Southern Khanty dialect, conditional clauses are non-finite projections containing a conditional participle (Csepregi 2019: 75-78) – see

(24a). Past conditional is expressed by a particle attached to the past participle (24b).

(24)a. [***Pira keret-ta nămǝs-aŋ-en***,] *pira mǝn-a.*
back turn-INF think-PTCP.CND-2SG back go-IMP.2SG
'If you want to turn back, turn back!'
(Southern Khanty, Csepregi 2019: 77)

b. [***man atit mǝn-m-em-n ataŋ***]
I alone go-PTCP-1SG-LOC PRT
'If I had gone alone, '
(Southern Khanty, Csepregi 2019: 78)

These observations suggest that there is no reason to assume that the emergence of finite subordination is an advance in language evolution, elicited by the needs of cultural development. Languages with no finite subordination can express the same cline of clausal complexity and clausal (in)dependence as languages having both finite and non-finite subordinate structures at their disposal.

4. The change from non-finite to finite subordination correlates with the change from SOV to SVO

In the Uralic languages that have been influenced by Russian for the longest time, the Uralic SOV word order is giving way to a mixed OV–VO word order (Vilkuna 1998). The appearance of finite subordination seems to be parallel with the emergence of SVO sentence structure. The correlation between SOV word order and non-finite subordination, and SVO order and finite subordination is clearest in the case of Hungarian, where the shift from head-final to head-initial grammar took place a thousand years earlier. The change in Hungarian syntax must also have been due primarily to Slavic influence, the language of a local Slavic population absorbed by the Hungarian tribes settling in the Carpathian Basin in 896. As shown by É. Kiss (2014), not only the SOV order of the VP changed to SVO, but also the 'VP Auxiliary' order of the TenseP projection gave way to an 'Auxiliary VP' order, and the 'TP

Complementizer' order of the CP (preserved longest in *yes-no* questions) gave way to a 'Complementizer TP' order. The noun phrase developed left-peripheral functional projections. Similar developments took place in Finnish under the influence of SVO Swedish.

Similar changes have also begun in the most conservative Uralic languages. Head-initial constructions are emerging on various levels of sentence structure. In Khanty, for example, SVO and SVX sentences have appeared in addition to the prevailing SOV, SXV pattern (Nikolaeva 1999: 57; Asztalos, Gugán, Mus 2016). Csepregi (2019) reports the presence of Auxiliary – VP order in Southern Khanty, associated with the modals *nato* 'need' and *mošno* 'may, can', borrowed from Russian. For example:

(25)a. ***Nato*** *pusa* *rəwət-ta* *tam* *itaj.*
needs beer brew-INF DET evening
'It is necessary to brew bear tonight.'
(Southern Khanty, Csepregi 2019: 43)

b. *I-χajad-etən* *ńe* ***mošno*** *it* *tăχəmə-ta.*
one-some-2DU not can PRT win-INF
'Neither one of you can defeat [it].'
(Southern Khanty, Csepregi 2019: 44)

The emerging finite relative clauses tend to involve a clause-initial relative pronoun:

(26) *Mä* *kolente-l-əm* *merəm,* [***muɣuj*** *jateswe-wəl* *aŋk-im*]
I listen-PRS-1SG only which tell-PRS.3SG mother-1SG
'I only listen to what my mother tells.'
(Vasyugan Khanty, Filchenko 2007: 497)

Sporadically, we can also attest finite clausal complements involving a subordinator. The subordinator is a complementizer borrowed from Russian, and, crucially, it appears in clause-initial position, in evidence of a head-initial CP projection:

(27) *Iki-nə* *tuɣumtə-s-i,* [***ʃto*** *nöɣi* *qoɣərtə-wəl*].
old_man-LOC figure-PST-PASS.3SG that meat boil-PRS.3SG
'It was figured by the old man that meat is boiling.'
(Vasyugan Khanty, Filchenko 2007: 516)

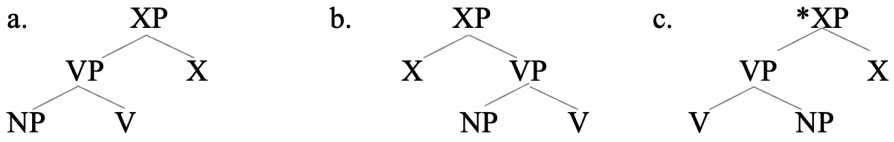
The correlation between SOV word order and non-finite subordination, and between SVO word order and finite subordination is also confirmed by cross-linguistic observations, recorded, e.g., on Map 96 of the World Atlas of Language Structures (Dryer 2013).

The observed correlations are too consistent to be accidental; they invite explanation. Two accounts have been proposed recently, the merits and problems of which will be discussed in sections 4.1. and 4.2.

4.1. A formal account of the correlation

According to Biberauer, Holmberg, and Roberts (2008; 2009; 2014), Biberauer and Sheehan (2013), and Sheehan et al. (2017), the correlation between SOV word order and non-finite subordination follows from a formal principle universally constraining the architecture of syntactic structures: the Final-Over-Final Condition. The Final-Over-Final Condition states that a head-final phrase αP cannot dominate a head-initial phrase βP where α and β are heads in the same Extended Projection (Biberauer, Holmberg, & Roberts 2014: 171). That is, structures (28a) and (28b) are possible syntactic structures, but structure (28c) isn't.

(28)



Consequently, if the basic OV (i.e., NP V) word order changes to a head-initial VO order, as represented in (28c), the Final-Over-Final Condition predicts a shift to head-initial projections on the levels of Tense Phrase and Complementiser Phrase, i.e., it predicts a pre-VP auxiliary and a clause-initial complementiser (assuming TP and CP are extended projections of

the VP). In a head-final agglutinating language, where the subordinator of non-finite clauses is a clause-final suffix with the verb incorporated into it, the directionality of the clausal projection can be shifted by the introduction of a clause-initial complementiser. This is what is happening in the conservative Uralic languages like Khanty at present, and what happened in Old Hungarian a thousand years ago.

Relative clauses are also changing from prehead participial gap-relatives to postnominal relatives introduced by a clause-initial relative pronoun, although the noun phrase and the adpositional phrase have remained head-final. Uniquely among the Uralic languages, the Hungarian noun phrase has developed a head-initial DP level with a prenominal article, but it is still head-final at the NP level; and the PP has also remained head-final.[4] The Final-Over-Final Condition does not explain why an Old Hungarian prenominal relative clause like that in (29a) is formulated as a postnominal finite clause introduced by a clause-initial relative pronoun in Modern Hungarian (29b) – while it appears to be dominated by the same head-final NP and PP projections as its Old Hungarian predecessor.

(29)a. *Mÿkoron* [[[***The*** ***valazt-ott-ad***] *sÿdo* *nep-ed* NP]
when you choose-PTCP-2SG Jewish people-2SG

mÿa PP] *Meg* *fog-at-t-al*
because PRT capture-PASS-PST-2SG
'When you were captured because of your Jewish people, which you had chosen' (Old Hungarian, Pozsonyi C. 2v-3r)

b. *Mikor* *el-fog-t-ak* [[*zsidó* *nép-ed* NP] t_i NP] *miatt* PP]
when PRT-capture-PST-3PL Jewish people-2sg because

[4] More precisely, colloquial Finnish has also been argued to be developing an article (Gröndahl 2015).

[***mely-et*** ***te*** ***választ-ott-ál***]$_{i\ PP}$]
which-ACC you choose-PST-2SG
'When you were captured because of your Jewish people, which you had chosen' (Modern Hungarian)

Furthermore, whereas the Final-Over-Final Condition correctly predicts that the SOV-to-SVO change brings about a shift from non-finite to finite subordination, it does not explain why the Uralic languages used only non-finite subordination at their strictly SOV stage. The Final-Over-Final Condition does not rule out head-final projections dominated by head-initial ones, for example, a head-final VP dominated by a head-initial CP projection involving a clause-initial complementizer (structure (28b)).

4.2. A perceptual account of the correlation (Minimize Domain)

An alternative theory by Hawkins (1994; 2004; 2013) offers an explanation of the correlation between both SOV and non-finite subordination, and SVO and finite subordination in terms of processing economy. Hawkins' Minimal Domain Principle states that the human processor prefers to minimize the connected sequences of linguistic forms in which relations of combination and/or dependency are processed – so as to reduce demands on working memory. The shorter the string on the basis of which a phrasal node and its immediate constituents can be constructed, the more optimal the structure.

A phrasal node can be constructed if a syntactic category uniquely determines it in the course of the left-to-right parsing of the sentence. A VP consisting of a verb and an object clause, for example, can be constructed if we have parsed the verb identifying the VP, and the subordinator identifying the clausal object. In the case of a finite complement clause, the head identifying the complement clause is the complementizer; in the case of non-finite clauses, it is the non-finite suffix of the verb. The shorter the string including the verb and the subordinator on the basis of which the transitive VP can be constructed, the easier the structure is to parse.

In the case of an SOV sentence containing a clausal object, the string needed to construct the VP is shortest if the verb and the subordinator of the object clause are adjacent. This is what happens if the subordinator is an infinitival, participial or gerundial suffix at the right edge

of the embedded clause. Hence Uralic non-finite complement clauses, e.g., those in (30a,b), are optimal.

(30)a. [*Kət wətəj-at jik-**ta***] ***t'əpart-aj***.
two reindeer-INS harness-INF order-PASS.PST.3SG
'He was ordered to harness two reindeer.'
(Eastern Khanty, Csepregi 2019: 42)

b. *Ma* [*aj χuj art-em-nə jăŋχ-**əm***] *ənt* ***uj-em***.
I little man time-1SG-LOC go-PTCP NEG know-PST.1SG
'I didn't know whether I had been there in my boyhood.'
(Southern Khanty, Csepregi 2019: 45)

If the complement clause were a finite clause with a clause-initial complementizer, the string including the subordinator and the matrix verb to be kept in mind until the VP is constructed would be significantly longer. Naturally, it also happens in Khanty that the embedded non-finite clause is extraposed into postverbal position, in which case its perceptual advantage is lost. Hawkins' theory, more precisely, his Performance-Grammar Correspondence Hypothesis merely says that grammars tend to conventionalise syntactic structures that are preferred in performance.

The use of non-finite complement clauses is not the only economical way of subordination in SOV sentences. They may use complementizer-initial finite complement clauses, and attain the adjacency of the matrix verb and the complementizer by the extraposition of the embedded clause into postverbal position. Or they may use finite embedded clauses with a clause-final complementizer, as is attested in Udmurt:

(31) *Mon* [*ton bert-o-d* ***šuysa***] ***malpa-śko***.
I you come_home-FUT-2SG that think-PRES.1SG
'I think that you will come home.'
(Udmurt, Tánczos 2013)

The fact that the conservative Uralic languages (including Udmurt) prefer non-finite clausal complements to complementizer-final finite subordinate clauses is related to the agglutinating character of Uralic languages. A non-

finite subordinate clause incorporating the C, T and V heads into a single constituent is more compact than a finite clause with a separate complementizer. As stated by Hawkins' Maximize Online Processing principle, the human processor prefers to maximize the set of properties that are assignable to each item X as X is processed.

A finite clausal complement is optimal in SVO languages like modern Hungarian. In Old Hungarian, the dominant word order of matrix clauses was already VO, hence non-finite complement clauses such as (32a) from an 1516 Bible translation did not represent the most economical way of subordination any more. No wonder they were gradually replaced by finite clauses introduced by a complementizer, as shown by the 1561 translation of the same sentence in (32b).

(32)a. *Az papy feyedelem kedegh, Ananyas ...* ***hagy-aa***
the priest prince CONJ Ananyas let-PST.3SG

az kórűl all-o-k-nak
the around stand-PTCP-PL-DAT

[*az hű zay-a-t arcz-űl ver-**ny***].
the he mouth-3SG-ACC face-LOC slap-INF
'And the high priest Ananias commanded them that stood by him to smite him on the mouth.'
(Old Hungarian, Jordánszky C. 783)

b. *A Papi feiedelem kedig* ***paranczol-a***
the priest prince CONJ order-PST.3SG

a' mellet-e ál-ó-k-nac,
the near-3SG stand-PTCP-PL-DAT

[*hogy* *meg vt-né-c a' szái-á-t*].
that PRT slap-COND-3PL the mouth-3SG-ACC
'And the high priest commanded them that stood by him to smite him on the mouth.' (Middle Hungarian, Heltai R1r))

The string containing the matrix verb and the subordinating morpheme contains 9 words in (32a) but only 5 words in (32b), which explains the shift from pattern (32a) to pattern (32b).

In the case of relative clauses, the modified noun phrase is constructed if the noun phrase and its clausal modifier have been identified. The identifier of the noun phrase is the noun, and the identifier of the relative clause is the subordinator: the participial suffix in prehead relatives, and the relative pronoun in postnominal finite relative clauses. Since a noun phrase rarely has constituents separating the relative clause from the nominal head, prenominal non-finite relatives and postnominal finite relatives are equally optimal, as the subordinator and the noun needed to construct the modified noun phrase are close, or adjecent, in both cases. Nevertheless, with the rise of finite subordination, we attest the spreading of finite relative clauses, as was illustrated by (29a,b), and is also shown by the subsequent translations (from 1416/1451 and from 1590) of a Biblical sentence in (33).

(33)a. *Èlè-ic-bè* *kèl-ec* *ǫ-nèk-ic* *mōnal*
front-3PL-ILL rise-1SG they-DAT-3PL like

[*kǫlk-è-y* *èlragad-**ot***] *nǫsten* ***mèdue***]
whelp-3SG-PL rob-PTCP female bear
'I will meet them like a female bear bereaved of her whelps.'
(Old Hungarian, Bécsi C. 199)

b. *Ele-ik-be* *fut-oc* *mint* *az* ***Medue*** [***melly-nec***
front-3PL-ILL run-1SG like the bear which-DAT

kŏlyk-é-t *el* *vŏ-tt-éc*]
whelp-3SG-ACC off take-PST-3PL
'I will meet them like a bear that is bereaved of her whelp.'
(Middle Hungarian, Károli II/1. 182v)

The reason for the spreading of finite relative clauses must be a preference for uniform directionality. This preference has been recognized by typologists, e.g. Greenberg (1963) and Dryer (1992). Hawkins (1982)

derives it from our striving for economy: grammars with more cross-categorial generalizations are preferred over those with fewer ones because they are simpler.

5. Conclusion

This paper has sought an explanation of why the Uralic languages don't use – or didn't use until intensive contacts with Indo-European languages – finite subordination; why they make use of various kinds of non-finite subordinate clause types instead. According to a long-standing assumption, non-finite subordination represents a less developed, or at least culturally less advanced, stage of human languages, associated with pre-literate societies by some authors. Generative linguistic theory rejects this view because it contradicts its Uniformity Principle, according to which all human languages are manifestations of the same, biologically determined Universal Grammar. This paper has argued against regarding non-finite subordination less developed than finite subordination on the basis of empirical evidence. It has been shown that the system of non-finite subordination in Uralic has the same expressive power as subordination in the well-known Indo-European languages. Uralic complement clauses instantiate the same cline of (in)dependence, complexity, integration and transparency as their Indo-European counterparts, with complement clauses involving a separate vP domain and dependent tense and dependent subject; complement clauses involving a separate vP+TAM domain; and complement clauses also involving a separate operator domain – as determined by the semantic requirement of the matrix predicate.

The richness of the Uralic system of non-finite subordination has been illustrated with Old Hungarian examples. Historical data of Hungarian, which went through an SOV-to-SVO word order change in the 10–12th centuries, suggest that non-finite subordination is a concomitant of SOV basic word order, and the emergence of finite subordination is a consequence of the loosening of the SOV order and the emergence of SVO. This has been confirmed by data from the Uralic languages of Russia, where the appearance of finite subordination seems to correlate

with the length of Russian influence and the presence of non-SOV word order patterns.

Proponents of the view that languages with finite subordination represent a more complex, more advanced system than languages with non-finite subordination might raise the point that languages which have finite subordination typically also have non-finite subordination, but not the other way around. This fact is likely to have historical reasons. It has been argued by Givón (1975; 1977), Newmeyer (2000), and Gel-Mann & Ruhlen (2011), among others, that the earliest human language had SOV word order. Most of the world's language families are still either predominantly SOV today or derive demonstrably from an earlier stage that was SOV. Emerging languages (among them Pidgins and newly arising sign languages) as well as child language show a preference for SOV word order – also in an SVO environment (Sandler et al. 2005; Senghas et al. 1997). If SVO has evolved from SOV, then it is not surprising that SVO languages preserve relics of their SOV past.

The paper has examined two hypotheses about the correlations between SOV and non-finite subordination, and SVO and finite subordination. The Final-Over-Final Condition of Biberauer, Holmberg, and Roberts (2014, etc.), a formal principle constraining clausal architecture, does not allow a head-initial structure to be dominated by a head-final one within the same extended projection. Hence, the emergence of a head-initial vP brings about a shift to a head-initial order on the higher levels of sentence structure, as well – which is realized by the replacement of head-final subordinators (i.e., non-finite suffixes) by head-initial complementizers. This theory correctly predicts that the SOV-to-SVO change leads to the emergence of finite subordination. However, as it does not rule out the domination of a head-final structure by a head-initial projection, it does not explain why SOV sentences favour non-finite subordination.

The theory of Hawkins (2004, etc.), based on processing economy, covers a wider ground. Hawkins' Minimize Domain principle predicts that the human processor prefers to minimize the connected sequences of linguistic forms in which relations of combination and/or dependency are processed – so as to reduce demands on working memory. The shorter the string on the basis of which a phrasal node and its immediate constituents can be constructed, the more optimal the structure. According to the

Performance-Grammar Correspondence Hypothesis of Hawkins, a grammar conventionalizes syntactic structures in proportion to their degree of preference in performance. It follows from the principle that languages drift towards subordination patterns where the selecting predicate and the subordinator of the embedded clause are as close as possible. Hence SOV sentences prefer a head-final object clause, whereas in the case of SVO word order, the optimal object clause begins with a complementiser. Furthermore, the human processor prefers to maximize the set of properties that are assignable to each item. Hence, in an agglutinative SOV language, a non-finite head-final structure is predicted to be preferred to a finite subordinate clause because a non-finite verb – unlike a separate complementiser – is the simultaneous identifier of both the subordinate clause and the subordinate VP.

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Art Leete

Finno-Ugric animism and the Finno-Ugric idea

I aim to demonstrate that discussions about Finno-Ugric animism laid the ground for a hypothesis about Finno-Ugric connection going beyond language and penetrating different spheres of culture. Prominent inclusion into classical Cultural Evolutionism enabled seeing the Finno-Ugric animism as a pan-ethnic and internally interconnected phenomenon. Later, understanding of animism as interconnected among the Finno-Ugric groups became a regular scholarly approach.

The Pre-Evolutionist discussion of Finno-Ugric animism

Johann Gottfried Herder argued that ethnic groups share distinctive understanding, beliefs, and attitude (Herder 1883: 58). He claimed that the uniqueness of each human population's *Volksgeist* was based on its language, as "… the genius of people is nowhere more displayed than in the physiognomy of their language" (Herder 1966 [1800]: 237–238). Herder also considered particular qualities of "the Finns" (i.e. Finno-Ugrians), thinking that all the Finno-Ugric peoples displayed evident resemblances:

> These people, however, nowhere attained any mature or substantial civilization, for which their unfortunate situation, not their capacity must be blamed. They were not warriors, like the Germans; for, after so many ages of oppression, all the popular tales and songs of the Laps, Fins, and Esthonians, prove them to be a gentle people. (Herder 1966 [1800]: 475)

Herder's Romantic nationalism and his original depiction of Finno-Ugric peoples served as a strong inspiration for Finno-Ugric studies, particularly the explorations led by Finnish and Hungarian academics. Significantly, Herder includes animistic beliefs into his list of Finno-Ugric distinctions.

Correspondingly, the German botanist and geographer Johann Gottlieb Georgi contemplated in the 18th century that the Finno-Ugric

peoples resemble each other in "physique, nation-wide characteristics, language, customs, clothing, superstition etc." (2007 [1799]: 48). Georgi claimed that in earlier times, Finns and Estonians had shared an animistic faith with other "peoples originating from the Finns" (ibid.: 62, 67). All of them recognised a general idea of a god, acknowledged multiple lower gods, and made sacrifices to all of them. While discussing the Khanty religion, Georgi reports that imaginations of a Higher Being, sacrificial rituals and prayers are similar among all the Finno-Ugric "pagans" (ibid.: 113–116). For Finns and Estonians, this faith already belonged to the past, but the Siberian peoples were still captivated by it.

M. A. Castrén (together with the Hungarian scholar Antal Reguly) was among the first to argue that the oldest variants of the Uralic peoples' spiritual culture originated in Siberia. As some traces of shared animistic ideas, narratives and practices had been maintained or recorded in some form, one could reconstruct the Finno-Ugric animistic worldview, although fragmentarily. Regarding meaningful distant connections, Castrén discussed, for example, shamanism, epic poetry, and funeral customs.

Castrén admitted that magic is similar among all peoples but saw also variations, even among the Uralic peoples. He argued that for the Finns, healing was the most significant aspect of magic, while for the Nenets it was foretelling. Castrén promoted the pre-Evolutionary idea that the functions of magic depended on each people's level of development. A Finnish "magician" was more skilful and maintained spiritual command over his independent actions, whereas a Nenets shaman *(tadibei)* was supported by spirit helpers, being just their interpreter or herald. According to Castrén, shamanic legends and narratives about sorcerers were comparable among the Finns and Nenets. The mystic talent was hereditary inside a family or tribe, and in Castrén's view, a Nenets merely needed to acknowledge a shamanic legacy. At the same time a Finnish wizard must learn his profession carefully to obtain the necessary abilities. Nevertheless, Castrén also described how the Nenets studied "the science of tadibeis" (Castrén 1860: 124–126).

Castrén saw certain coherence between the Finno-Ugric Arctic song tradition (which he documented among the Khanty, Nenets, and Selkup peoples) and the more advanced but basically analogous epical

singing practice of the Finns (while comparing the texts of songs but also the inclination of using trochee-based verses):

> The Finnish Kalevala is nothing more than an outgrowth of the germ found in a Samoyed song. The heroes of Kalevala usually go to a battle to win the heart and hand of a maiden. Very often, the same can be found in the Samoyed songs. […] Finnish poetry is purer, and more majestic than that of the Samoyeds, although it is likely that all rune cycles that describe the courting pursuits of Väinämöinen, Ilmarinen, and Lemminkäinen to Pohjola originated from a less than pure spring, which has also fed the love songs of the Samoyeds. (Castrén 1860: 298)

Besides, Castrén maintained that burial customs demonstrate an age-old Finno-Ugric spiritual unity. Castrén writes that the Southern Selkups buried their dead into a particular type of graves, *laed*, which Castrén characterised as "Chud graves". These were mound graves, well-known also among the Northern Samoyeds, Khanty, Saami, Finns, and other Finno-Ugric peoples (Castrén 1860: 306-307; analogous observations were made by Karjalainen 1918: 109).

Although Castrén's notes may look like random examples, it is significant that he repeatedly connects Finno-Ugric groups, distant from each other, by animistic motifs. Every similarity serves for Castrén as proof, and from these seemingly unconnected remarks the picture of a shared Finno-Ugric animistic religion emerges. Castrén did not remain alone with this methodological approach. On the contrary, this mode of proving the Finno-Ugric connection became a norm in academic research.

The Finno-Ugric segment of the general Evolutionist scheme

Examples of Finno-Ugric beliefs constituted a substantial part of Adolf Bastian's, Edward Burnett Tylor's, and James George Frazer's studies. Tylor placed Finno-Ugric peoples on evolutionary scales of development, with Finns and Hungarians at the most developed, Khanty and Samoyeds at the most backward level. Using literature about the Uralic peoples, Tylor

included a Finno-Ugric track into his general evolutionary pattern. For example, while referring to Castrén, Tylor asserts:

> In his description of the Siberian nature-worship, the lowest level is exemplified by the Samoyeds, whose direct worship of natural objects for themselves may perhaps indicate the original religious condition of the whole Turanian race. But the doctrine of the comparatively cultured heathen Finns was at a different stage. Here every object of nature has a *"haltia,'* a guardian deity or genius, a being which was its creator and thenceforth became attached to it. (1871: 245)

While discussing the Finno-Ugric line of mental evolution, Tylor relied heavily on Castrén. On numerous occasions, Tylor mentioned Castrén's observations of spirits enclosed into material objects, stone worship, veneration of the other natural objects, reindeer sacrifice, forest spirits and sacred groves, the doctrine of the divine Sky, as well as "demoniacal possession" among the "savage[s]" in Finno-Ugric contexts (Tylor 1871: 135, see also 155, 163, 187, 211, 224, 351). Castrén basically outlined the notion of animism before Tylor, who referred to Castrén's theory of fetishism (as "subordinate department" of animism) concerning the belief in spirit-carrying animals (Tylor 1871: 144; see also Lehtinen 2017: 102; Leete 2022).

Tylor seems to have been very fond of matters Finno-Ugric, but other evolutionists in their classical studies also dealt with the development of Finno-Ugric beliefs, although to a lesser extent. Among these big names, Adolf Bastian and James Frazer paid substantial attention to the Finno-Ugrians as well.

Adolf Bastian and James George Frazer also used Castrén's data to support their ideas about the development of religion (see, for example, Bastian 1860: 147, 276, 369, 561; Frazer 1894 [1890]: 102–103). This indicates that ethnographic evidence provided by a single scholar enabled the reconstruction of a prototype of Finno-Ugric animism for several prominent theoreticians.

The Finno-Ugric particulars

After Tylor and Frazer had used the Finno-Ugric examples extensively in their fundamental works, the next generation of researchers started to employ the scheme of Cultural Evolution in their studies of Finno-Ugric religion. The origin of Finno-Ugric rituals and a Finno-Ugric worldview had been a prominent topic even before the theory of Cultural Evolution had become dominant, but it provided a new and powerful scholarly tool for confirming meaningful connections between Finno-Ugric animisms.

For Jankó, the Khanty, one of the "corner peoples" of a "Finno-Ugric triangle" (together with Finns and Hungarians), represented the most primitive stage of Finno-Ugric culture (while Finns and Hungarians had reached the highest level). On his way to fieldwork with the Khanty in 1898, he outlined the evolutionary typological model of the Finno-Ugric material heritage, later also labelled as "Jankó's triangle":

> The south-westernmost of the Finno-Ugrian peoples are the Hungarians, the north-westernmost the Finns (together with the Lapps) and the easternmost the Khanty. If I can learn as much about the Khanty as I know about the Hungarians and Finns, I will be acquainted with the three corners of the whole gigantic Finno-Ugrian triangle. From the viewpoint of typology, this means for me that the Finno-Ugrian elements in the ethnology of all the other Finno-Ugrian peoples living between these three points will probably only provide further details to a typological construction which rests on the three corner peoples. (Jankó 2000: 394)

Jankó's model indicates a rather sophisticated but strict way of assigning peoples to their places in the Finno-Ugric space. Jankó constructed his theoretical framework from the principles of Cultural Evolutionism. And this did not remain an isolated effort.

Castrén, a forerunner of the evolutionists, made several bold comparisons between the rituals and beliefs of various Finno-Ugric groups, across great distances. Similarly to Castrén, Serafim Patkanov at the end of the 19th century searched for resemblances in mythological narratives. He compared the status of unmarried girls among the archaic Khanty with evidence from the epic *Kalevala.* Patkanov claims that a Finnish girl main-

tains her personal independence and dignity better, and regarding spiritual and moral standards, a Finnish maiden stands socially much higher than a Khanty one. (Patkanov 1999: 95)

Patkanov also claims that, according to chronicles, the Khanty, Mansi, and Hungarians have shared the custom of eating a killed enemy's heart (Patkanov 1999: 102–103). The motif of eating an antagonist's (often a Christian's) heart is fairly popular in historical and ethnographical accounts of Western Siberia, especially the Samoyeds (see Slovtsov 1844: 92; Abramov 1857: 350; Dunin-Gorkavich 1996: 10–12). But in most cases, no parallels with linguistically and geographically close or distant peoples have been made. These accounts of sacral cannibalism, however frequent, must be treated with caution, as a pagan heart-eating was a fairly frequent or even obligatory theme in reports by missionaries (see Leete 2014: 129).

Applying a different strategy, K. F. Karjalainen provided more detailed insights into the theory of a common Finno-Ugric religion. Primarily, he focused on how the Ob-Ugrians had been influenced by their indigenous (Samoyed) and non-indigenous neighbours (Russians, Komi, Tatars). Besides, Karjalainen consistently discussed the Khanty and Mansi religion in the context of Russian Orthodoxy and Islam, both of which have primarily and immediately influenced the Ob-Ugrian animism.

However, Karjalainen also drew remote parallels between the Finno-Ugric groups. For example, he proposed that the horse sacrifices of the Khanty and Mansi were related to historical data about a similar ritual among the Hungarians. Karjalainen supposed that the ancestors of the contemporary Ugric peoples had originally shared even more ritual practices. Besides, Karjalainen detected similarities between Khanty, Mansi and Hungarian beliefs about dogs, the cult of the dead, and funeral rituals. Reflecting on analogous habits of feeding the dead among the Hungarians and Ob-Ugrians, Karjalainen proposed that this practice have been initiated in a proto-Ugric or even proto-Finno-Ugric period. Several features of Ob-Ugrian funeral rituals and beliefs found parallels among Finns, Ingrians, Karelians, and Saami (Karjalainen 1918: 32–33, 53, 76–77, 81, 100–107, 110, 117–122, 218, 407). Karjalainen also sought for parallels between the Ob-Ugrian shamanic drums and the Saami and Hungarian ones, but finally determined that the Khanty and Mansi drums represent a different type than the other Finno-Ugric drum traditions (Karjalainen

1918: 560–563). Nevertheless, Karjalainen supposed that the Ob-Ugrian ritual shamans were analogous to the Finnish, Estonian, and Saami ritual specialists. He determined that the basic layer of the Finno-Ugric spiritual heritage consisted of the belief in souls, the cult of the ancestors, and shamanic practices (Karjalainen 1918: 601).

Already these few examples indicate that by the early 20th century, the idea of interconnectedness of animistic ideas and practices was elaborated in a nuanced way. Numerous notions (above, only a small selection was presented) reveal that the Finno-Ugric animism was seen as basically the same in different parts of the Finno-Ugric area. But what was seen as the consolidating cause of these similarities?

It really worked within the scholarly community, but how?

The method of setting up concepts by comparing animistic beliefs of geographically distant Finno-Ugric or Uralic groups became wide-spread among scholars and travellers of the 19th and early 20th centuries. Comparisons between these groups highlight animistic motifs that were supposed to reflect a shared layer of a Finno-Ugric proto-culture. This technique of modelling Finno-Ugric animism was applied also later in the 20th century.

The principle of comparing animistic beliefs was based on the assumption that the common origin of the Finno-Ugric groups is of primary importance and determines their worldview. It was supposed that all archaic beliefs had arisen during some stage of Finno-Ugric unity and that they were maintained and reflected by shared, inherited linguistic features. This scholarly strategy was developed to its logical end after World War II by Ivar Paulson, an Estonian-born Swedish scholar.

Paulson (1964, 1965) summarises the basic approach of these investigations of Finno-Ugric animism. In his view, language relatedness plays a much more central role than environmental factors; therefore, even after wide migrations and geographic dispersal, the worldviews of the Finno-Ugric peoples could have remained connected. Paulson illustrates this with the example of the Komi. According to Paulson, the Komi have migrated from their original homeland towards north and east, but their

authentic religion is still an agricultural one, even if their cultural context gives a different impression and their ecological environment is rather unfavourable for agriculture. Paulson argues that an archaic Komi animist religion can be reconstructed on the basis of the beliefs of their closest linguistic relatives, the Udmurts, who remained in the agricultural zone. Thus, Udmurt animism is also Komi animism. The actual Komi religion is just spoiled by the Russian culture, Russian Orthodoxy, and a forest environment. Basically, Paulson follows Uno Harva's approach to the Permian religion (Holmberg 1914).

Although highly logical, Paulson's scheme has its faults, as it is based on non-improvable postulates and runs into trouble with ambivalent cases, such as the Komi one. The answer by scholars (including Paulson) to this controversy has been to disqualify the Komi from the list of genuine Finno-Ugric groups. But who has the right to decide that?

My impression is that the idea about linguistic relatedness and common origin as the decisive factors in the Finno-Ugric religion have been accepted by many later scholars as well. By this principle, every similarity in itself can be regarded as evidence of a common original worldview. Thus, analogy magic becomes a scientific method. Besides, enthusiasm about a shared religion supports the general arguments about a shared Finno-Ugric outlook on life. This, in turn, is important for constructing ethnic narratives about a Finno-Ugric background.

Scholars have often been enthusiastic about similarities between geographically distant peoples, and authors of the 18th–20th centuries drew comparisons based on the idea that the Finno-Ugric peoples are genuinely connected. Animism was one of the favourite topics in these discussions, because it appeared to confirm prototypical similarities. At the same time, scholars were conceptually neglecting or ignoring the significance of variation within the Finno-Ugric ethnographic space and similarities between Uralic and non-Uralic (neighbouring or more distant) peoples.

During the 19th and early 20th centuries, research of Finno-Ugric mythology, beliefs, and rituals supported the idea of an archaic connection between these groups. Features of animism were among the most substantial pieces of evidence supporting the concept of a common Finno-Ugric past. Long-distance parallels emerged as the best proof of this

connection, and the easternmost groups served as a prototype of a purported Finno-Ugric or Uralic culture.

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Anatoliy Rakin

Genesis of meteorological vocabulary in the Permian languages

Meteorological vocabulary occupies an important place in the vocabulary of any natural language, regardless of whether it has a literary standard or not. It is intended for designation of the near-earth atmospheric space, the processes and phenomena occurring in it, and is associated with observations of weather conditions, the movement of air masses, and precipitations, which have a direct impact on the state of nature, on human life and activity.

According to our card index, compiled on the material of all three Permian languages, the corpus of meteorological vocabulary consists of 668 designations relating to 141 objects of nomination. Of these, 230 units represent the Komi-Zyryan language, 185 the Komi-Permian language, 273 the Udmurt language. The main sources of the actual material for the study were lexicographic editions of literary Permian languages (KRK 2000; RKS 2003; KPRS 1985; URS 1983; URS 2008; RUS 1956), additional information on the Komi-Permian and Udmurt meteorological vocabulary was obtained by oral questioning of some speakers of these languages. The dialect material contained in the above-mentioned sources and etymological dictionaries, is also analyzed.

Based on the subject-conceptual content of lexical units in the composition of meteorological names, 5 main components can be conditionally distinguished.

I. System-wide designations. The peculiarity of this group of meteonyms (weather names) is that they belong to the meteorological vocabulary as a whole, and not to any of its varieties and have, for example, such meanings as 'meteorology', 'atmosphere', 'air', 'weather', etc. It should be noted that system-wide designations constitute the smallest group within the meteorological vocabulary, both in terms of the number of objects of the nomination and the number of their names. Thus, there are 20 and 21 lexical units for 12 objects of the nomination in the Komi-Zyryan and Udmurt languages, in the Komi-Permian language 11 objects of the nomina-

tion have 14 names. Besides, the microsystem of system-wide designations is characterized by a small share of common names dating back to the ancient periods of development of the Permian languages and the predominance of borrowings. All this indicates that the formation of system-wide designations, apparently, occurred much later than other varieties of folk meteorological vocabulary and under the influence of the Russian literary language. A certain role was probably played by the fact that the selection of the relevant objects of the nomination and their definition in this area, as a rule, is not carried out at the ordinary level of knowledge, but only on the basis of scientific knowledge about this area of the surrounding reality.

II. Designations of the state of the atmosphere. The state of the atmosphere is associated with such manifestations of weather as warm, hot, cool, cold, dry, damp, windy, windless, clear, cloudy, rainy, etc. This microsystem consists of 79 lexical units.

Examples from the Komi-Zyryan language: *шоныд* 'warm', *пöдтö* 'stuffy', *ыркыд* 'cool', *кöдзыд* 'cold', *тöла* 'windy', *лöнь* 'windless', *сэзь* 'clear', *кымöра* 'cloudy', *шондіа* 'sunny', *кос* 'dry', *васöд* 'damp', *зэра* 'rainy,' etc.

Examples from the Komi-Permian language: *шоныт* 'warm', жар 'hot', *кöдзыт* 'cold', *ыркыт* 'cool', *тöла* 'windy', *лöнь* 'windless', *кымöра* 'cloudy', *шондіа* 'sunny', *кöс* 'dry', *уль* 'damp', *зэра* 'rainy' etc.

Examples from the Udmurt language: *шуныт* 'warm', *окыт* 'stuffy', *салкым* 'cold', *сайкыт* 'cool', *тöло* 'windy', *тöлтэм* 'windless', *сэзь* 'clear', *шундыё* 'sunny', *кöс* 'dry', *кот* 'damp', *зоро* 'rainy' etc.

III. Names of atmospheric phenomena. This microsystem consists of 186 lexical units. Structurally, the following subgroups of meteonyms (weather names) are distinguished.

1. Names of clouds and their varieties.

Examples from the Komi-Zyryan language: *кымöр* 'cloud', *сьöд кымöр* 'dark cloud', *зэра кымöр* 'rain cloud', *шера кымöр* 'cloud of hail', *гыма кымöр* 'storm cloud', *гы сера кымöр* 'cirrus cloud', *юра кымöр* 'cumulus cloud', etc.

Examples from the Komi-Permian language: *кымöр* 'cloud', *сьöд кымöр* 'dark cloud', *зэран кымöр* 'rain cloud', *лым кымöр* 'snow cloud', *борда кымöр* 'cirrus cloud', *чукöра кымöр* 'cumulus cloud', etc.

Examples from the Udmurt language: *пилем* 'cloud', *сьöд пилем* 'dark cloud', *гыдыриё сьöд пилем* 'storm cloud', *зоро пилем* 'rain cloud', *лымы*

пилем 'snow cloud', *тыло тусо пилем* 'cirrus cloud', *люко пилем* 'cumulus cloud', etc.

2. Designations of the phenomena caused by presence in the atmosphere of electric discharges.

Examples from the Komi-Zyryan language: *гым-чард* 'thunderstorm', *гым* 'thunder', *чардби* 'lightning', *визя чардби* 'linear lightning', *сяр кодь чардби* ' ball lightning', etc.

Examples from the Komi-Permian language: *гым* 'thunder', *чардби* 'lightning', *чарньӧв* 'linear lightning', *шар кодь чардби* ' ball lightning', etc.

Examples from the Udmurt language: *куазь шукыръяськон* 'thunderstorm', *гудыри* 'thunder', *чилектэм* 'lightning', *гудырикӧльы* 'ball lightning', etc.

3. Names of light phenomena in the atmosphere.

Examples from the Komi-Zyryan language: *кыа* 'dawn', *асъя кыа* 'morning dawn', *рытъя кыа* 'evening glow', *востым* 'summer lightning', *енэж вералӧм* 'flashes', *вой кыа* 'Aurora Borealis', etc.

Examples from the Komi-Permian language: *кыа* 'dawn', *асъя кыа* 'morning dawn', *рытъя югыт* 'evening glow', *югдыштлӧм* 'summer lightning', etc.

Examples from the Udmurt language: *рардон* 'dawn', *хукна рардон* 'morning dawn', *инъюгыт* 'evening glow', *ворекъян* 'summer lightning', *инворекъян* 'flashes', *уйпал инворекъян* 'Aurora Borealis', etc.

4. Names of optical phenomena in the atmosphere.

Examples from the Komi-Zyryan language: *ӧшкамӧшка* 'rainbow', *тӧлысь кыти* 'moon halo', *шонді кыти* 'solar halo', *рӧмыд* 'twilight', etc.

Examples from the Komi-Permian language: *енӧшка* 'rainbow', *пемдандор* 'twilight', etc.

Examples from the Udmurt language: *вуюись* 'rainbow', *шундыкенер* 'solar halo', *толэзькенер* 'lunar halo', *акшан* 'twilight', etc.

5. Designations of the phenomena caused by opacification of air, concentration of various impurities.

Examples from the Komi-Zyryan language: *ру* 'fog', *сук пемыд ру* 'darkness', *верапан сынӧд* 'heat haze', *тшын-бус* 'mist', etc.

Examples from the Komi-Permian language: *пемыт* 'darkness', *туман* 'fog', *сынӧт* 'heat haze', etc.

Examples from the Udmurt language: *бус* 'fog', *пеймыт бус* 'darkness', *хынкыт* 'mist', *решо* 'heat haze', etc.

IV. Names of precipitations. This microsystem consists of 205 lexical units denoting such atmospheric realities of the Northern hemisphere of the Earth as rain, drizzle, downpour, heavy rain, dew, snow, hail, snow pellets, hoarfrost, frost, ice slick, etc.

Examples from the Komi-Zyryan language: *зэр* 'rain', *сибус* 'drizzle', *сувтса зэр* 'shower', *кулӧмаяслы зэр* 'rain in clear weather', *шер сора зэр* 'rain with hail', *лысва* 'dew', *лым* 'snow', *лым чир* 'snowflake', *кос лым* 'dry snow', *уль лым* 'wet snow', *катшашыдӧс* 'snow pellets', *шер* 'hail', *волък* 'ice slick', *пуж* 'rime', *лым шебрас* 'snow cover', etc.

Examples from the Komi-Permian language: *зэр* 'rain', *бус кодь зэр* 'drizzle', *сливнӧй зэр* 'shower', *гыма зэр* 'thunder rain', *йыа зэр* 'freezing rain', *лысва* 'dew', *лым* 'snow', *лымъялӧм* 'snowfall', *лым вевттьӧт* 'snow cover', *лым чир* 'snowflake', *лым бус* 'snow dust', *кӧс лым* 'dry snow', *уль лым* 'wet snow', *катша шыдӧс* ' snow pellets', *шер* 'hail', *куш йыг* 'ice slick', *пуж* 'rime', etc.

Examples from the Udmurt language: *зор* 'rain', *пызырась зор* 'drizzle', *жальзор* 'shower', *кулэм муртэс ватон* 'rain in clear weather', *гудыръяса ортчись зор* 'thunder shower', *йӧзор* 'freezing rain', *лысву* 'dew', *лымы* 'snow', *лымыян* 'snowfall', *чильлымы* 'snowflake', *лымы тузон* 'snow dust', *кӧс лымы* 'dry snow', *ыль лымы* 'wet snow', *куакакеньыр* 'snow pellets', *йӧкуштон* 'hail', *кырпак* 'hoarfrost', *йӧвалег* 'ice slick', *пужмер* 'rime', etc.

V. Names of the winds. The internal differentiation of weather names here allows us to identify the following categories of designations.

1. Names, the semantics of which is associated with the absence or presence of air flow, with varying degrees of intensity.

Komi-Zyryan examples: *лӧнь* 'windless', *дзик лӧнь* 'calm', *тӧвру* 'light wind', *небыд тӧв* 'weak wind', *ыджыд тӧв* 'strong wind', *му вӧран тӧв* 'heavy wind', *му путкыльтан тӧв* 'squally wind', *гумыльга* 'whirlwind', *бушков* 'windstorm', *сьыв* 'hurricane' etc.

Komi-Permian examples: *лӧнь* 'windless', *тӧлок* 'light wind', *кокнит тӧв* 'weak wind', *ыджыт погода* 'strong wind', *тӧв ныр* 'whirlwind', *тӧвчик* 'squally wind', etc.

Udmurt examples: *тӧлтэмдыр* 'calm', *тӧл ырос* 'light wind', *ляб тӧл* 'weak wind', *кужмо тӧл* 'strong wind', *поръям* 'whirlwind', *сильтӧл* 'windstorm', *вудокыль* 'hurricane', etc.

2. Names expressing temperature characteristics of the object of nomination.
Komi-Zyryan examples: *шоныд төв* ‘warm wind’, *кӧдзыд төв* ‘cold wind’, *ыркыд төв* ‘fresh wind’, etc.
Komi-Permian examples: *шоныт төв* ‘warm wind’, *кӧдзыт төв* ‘cold wind’, *ыркыт төв* ‘fresh wind’, etc.
Udmurt examples: *шуныт тӧл* ‘warm wind’, *кезьыт тӧл* ‘cold wind’, *ыркыт тӧл* ‘fresh wind’, etc.
3. Names, which semantic content is due to such opposite signs as dryness-humidity.
Komi-Zyryan examples: *кос төв* ‘dry wind’, *уль төв* ‘wet wind’.
Komi-Permian examples: *кӧс төв* ‘dry wind’, *уль төв* ‘wet wind’.
Udmurt examples: *кӧс тӧл* ‘dry wind’, *мускыт тӧл* ‘wet wind’.
4. Names indicating sharpness, impetuosity, penetrating nature of the object of nomination, the variability of the direction of the air flow.
Komi-Zyryan examples: *пугрӧдлан төв* ‘gusty wind’, *сотан төв* ‘burning wind’, *лэчыд төв* ‘harsh wind’, *вежласян төв* ‘variable wind’, etc.
Komi-Permian examples: *чизыр төв* ‘harsh wind’, *сотісь төв* ‘burning wind’, *вежсян төв* ‘variable wind’, etc.
Udmurt examples: *шуак жутскем тӧл* ‘gusty wind’, *жотырес тӧл* ‘harsh wind’, *сӧсъясь тӧл* ‘burning wind’, *вошъяськись тӧл* ‘variable wind’, etc.
5. Meteonyms denoting such objects of the nomination which do not act permanently, but arise only in certain conditions, in a particular period of the year.
Komi-Zyryan examples: *кунӧр* ‘rain storm’, *турӧб* ‘blizzard’, etc.
Komi-Permian examples: *падер* ‘snowstorm’, *нӧбӧтӧм* ‘blizzard’, etc.
Udmurt examples: *лымы пельтон* ‘blizzard’, *лымы поръян* ‘flurry snow’, etc.
6. Meteonyms denoting the initial wind direction relative to the sides of the horizon, and not only with respect to the main, but also intermediate.
6.1 Meteonyms of the first subgroup.
Komi-Zyryan examples: *лун төв* ‘south wind’, *вой төв* ‘north wind’, *асыв төв* ‘east wind’, *рытыв төв* ‘west wind’.
Komi-Permian examples: *лун төв* ‘south wind’, *ой төв* ‘north wind’, *асыв төв* ‘east wind’, *рытвыв төв* ‘west wind’.

Udmurt examples: *уйпал тöл* ‘north wind’, *лымшорпал тöл* ‘south wind’, *сакгонпал тöл* ‘east wind’, *шунды пуксён палась тöл* ‘west wind’.
6.2 Meteonyms of the second subgroup.
Komi-Zyryan examples: *асыв-вой тöв* ‘northeast wind’, *асыв-лун тöв* ‘southeast wind’, *рытыв-вой тöв* ‘northwest wind’, *рытыв-лун тöв* ‘southwest wind’.
Komi-Permian examples: *ойвыв-асыввыв тöв* ‘northeast wind’, *ойвыв-рытвыв тöв* ‘northwest wind’, *юго-восточнöй тöв* ‘southeast wind’, *лунвыв-рытвыв тöв* ‘southwest wind’.
Udmurt examples: *уй но шунды жужан вискыс тöл* ‘northeast wind’, *уй но шунды пуксён вискыс тöл* ‘northwest wind’, *лымшор но шунды жужан вискыс тöл* ‘southeast wind’, *лымшор но шунды пуксён вискыс тöл* ‘southwest wind’.

As in any natural language, the meteorological vocabulary of the Permian languages in its origin consists of two components: the primordial fund and borrowings.
The primordial fund of meteorological vocabulary of the Permian languages from the point of view of occurrence is a multilayered structure. In accordance with the chronology of the emergence there are proto-Permian, common-Permian, proto-Komi and individual-Permian formations. PP. (proto-Uralic, proto-Finno-Ugric, proto-Finno-Permian), common-Permian and proto-Komi meteorological names form the common heritage of all three (or two) modern Permian languages. Individual-Permian designations are late formations that arose in each of them independently after the disintegration of the proto-Permian and proto-Komi linguistic communities.
I. The group of proto-Uralic meteonyms consists of two designations related to one microsystem – the names of precipitations:
1) ***kura* ‘rime, fine snow’ (Rédei 1988: 215) > KZ. KP. *гыöр* ‘rime’, Udm. *гöр* ‘rime, hoarfrost’. Cognates exist in the Finnish, Karelian, Saami, Mansi and Selkup languages.
2) ***śarз* ‘hard snow, icy crust on the snow’ (Rédei 1988: 464) > KZ. KP. *чарöм* ‘crust’, not present in modern Udmurt. Cognates exist in the Hungarian, Nenets, Selkup and Kamas languages.

II. The group of designations of proto-Finno-Ugric origin consists of 11 words representing all five microsystems of meteorological names:
1) **säŋз* 'air' (Rédei 1988: 435) > KZ. *сынӧд* 'air', KP. *сынӧт* 'heat haze', not present in Udmurt. Cognates exist in Finnish and Hungarian.
2) **el'з* 'moist, wet' (Rédei 1988: 73) > KZ. KP. *уль* 'damp, wet', Udm. *ыль* 'damp, wet'. Cognates exist in Mari and Mansi.
3) **leńз* (Rédei 1988: 246). For the proto-form non-meteorological semantics is reconstructed: 'soft, flabby'. KZ., KP. *лӧнь* 'windless'. Not present in Udmurt, cognates exist in Finnish, Estonian, Mansi, and Khanty.
4) **koje* 'morning dawn' (Rédei 1988: 167) > KZ., KP. *кыа* 'dawn', not present in Udmurt. Cognates in Finnish, Estonian, Mansi, and Khanty.
5) **kumз* 'cloud, dark cloud' (Rédei 1988: 204) > KZ., KP. *кымӧр* 'cloud, dark cloud'. Not present in Udmurt, Udm. *пилем* 'cloud, dark cloud' is etymologically unrelated. Cognates in Finnish, Mansi, Hungarian, and Mordvin.
6) **pilwe (*pilŋe)* 'cloud, dark cloud' (Rédei 1988: 381) > KZ. *пив* 'cloud, dark cloud', Udm. *пилем* 'cloud, dark cloud', not present in Komi-Permian. Cognates in Finnish, Saami, Mari, Khanty, Hungarian and Mordvin.
7) **ratз (*rote)* 'steam, smoke, fog' (Rédei 1988: 420) > KZ. *ру* 'fog', KP. *ру* 'air'. In the Udmurt language, the cognate has a non-meteorological meaning: *жу* 'incandescent (burning coals)'. Udm. *бус* 'fog' is etymologically unrelated, see below. The word has a cognate in Khanty.
8) **ć́arз-* 'lightning' (KESK 1999: 302) > KZ. *чард* 'lightning', KP. *чарньӧв* 'lightning'. Udmurt *чар,* compared with the Komi examples, has a non-meteorological meaning 'the crackle of torn matter'; for lightning Udmurt uses the unrelated word *чилектэм*. Cognates in Hungarian, Saami, Mari and Erzya.
9) **pičз (*pečз)* 'rime; dew' (Rédei 1988: 377) > KZ. KP. *пуж* 'rime', Udm. *пужмер* 'rime'. Cognates given from Saami, Mari and Khanty.
10) **wäl'з* 'smooth' (Rédei 1988: 564) > KZ. *вольк* 'ice slick'. The cognates in other Permian languages, Mansi and Khanty, like the proto-form, have no meteorological meaning, cf. KP *волькыт* 'smooth, straight' (KPRS 1985: 79), Udm. *вольыт* 'smooth, straight' (URS 1983: 90). The meteorological meaning of the Komi-Zyryan word appeared, apparently, after separation from the ancestors of the Komi-Permians and Udmurts.

11) **pə̑rkka* 'blizzard' (KESK 1999: 233) > KZ. *пуркöситöм* 'blizzard', Udm. *пуррыны* 'rise, heave', not present in Komi-Permian. Cognates in Mari, Erzya, Moksha, Finnish, Saami, Mansi and Khanty.

III. The group of meteorological names of proto-Finno-Permian origin consists of 7 examples relating to three microsystems: to the designations of the state of the atmosphere, precipitations and winds:

1) **koksз* 'dry' (Rédei 1988: 670) > KZ. *кос* 'dry', KP. *кöс* 'dry', Udm. *кöс* 'dry'. Permian words are compared with Mari names.

2) **käć́з* 'to become cold, to catch cold' (Rédei 1988: 648) > KZ. *кöдзыд* 'cold', KP. *кöдзыт* 'cold', Udm. *кезьыт* 'cold'. A cognate in Mari.

3) **poś з* 'hot, heat, heat-haze' (Rédei 1988: 738) > KZ., KP. *пöсь* 'hot', Udm. *пöсь* 'hot'. Cognates in Mari and Mordvin.

4) **šonз* 'warm' (Rédei 1988: 787) > KZ. *шоныд* 'warm', KP. *шоныт* 'warm', Udm. *шуныт* 'warm'. Cognates in Finnish and Estonian.

5) **jačз* 'solid snow cover' (Rédei 1988: 630) > KZ. *юж* 'dense snow', KP. *юж* 'dense, trodden snow', Udm. *юж* 'crust'. Cognates in Mari and Saami.

6) **lume* 'snow' (Rédei 1988: 253) > KZ. KP. *лым* 'snow', Udm. *лымы* 'snow'. Cognates in Finnish, Estonian, Saami, Mari and Mordvin.

7) **tule* 'wind' (Rédei 1988: 800) > KZ. KP. *töв* 'wind', Udm. *töл* 'wind'. Cognates in Finnish, Estonian and Mari.

IV. The meteonymic vocabulary of Common Permian origin comes from Proto-Permian. The words in this diachronic group are used only in the modern Permian languages and have no cognates in the rest of Uralic. For this group, 29 protoforms are reconstructed.

1) **šuk-* 'bad weather' (KESK 1999: 323) > KZ. *шукöб* ' bad weather', Udm. *шукырес* 'terrible (of the wind)'. In the Komi-Zyryan language it is a dialect word. It is not used in the Komi-Permian language.

2) **ə̈l'is* 'damp, wet' (KESK, 296) > KZ. *улис* 'damp, wet', Udm. *ылъыс* 'wet', not present in Komi-Permian. This meteonym was derived probably already in Pre-Permian, apparently from Finno-Ugric **el'e* 'damp, wet' (see above).

3) **zera* 'rainy' > KZ., KP. *зэра* 'rainy', Udm. *зоро* 'rainy.' Formed from PP. **zer* 'rain' (KESK 1999: 108).

4) **k̯ȯ̑ʒ́ila, *k̯o̯ʒ́ila* 'starry' > KZ. *кодзула* 'starry', KP. *кöдзыла* 'starry', Udm. *кизилиё* 'starry'. Derived from PP. **k̯ȯ̑ʒ́il, *k̯o̯ʒ́il* 'star' (< Ur. **kuńćз* 'star').

5) **lümɜa* 'snowy' > KZ., KP. *лымъя* 'snowy', Udm. *лымыё* 'snowy'. Derived from PP. **lümɜ* 'snow' (< F.- P. **lumɜ* 'snow').
6) **sajkit* 'cool, fresh' (KESK 1999: 248) > KZ. *сайкыд* 'cool', KP. *сайкыт* 'cool', Udm. *сайкыт* 'cool'.
7) **ürkit* 'cool, fresh' (KESK 1999: 329) > KZ. *ыркыд* 'cool, fresh', KP. *ыркыт* 'cool, fresh', Udm. *ыркыт* 'cool, fresh'.
8) **seʒ́* or **sɜʒ́* 'cloudless, clear' (KESK 1999: 271) > KZ. *сэзь* 'clear, cloudless', Udm. *сэзь* 'clear, cloudless'. This meteonym is not used in the Komi-Permian language.
9) **t̨̂oltem* 'windless' > KZ., KP. *төвтӧм* 'windless', Udm. *тӧлтэм* 'windless', derived from PP. **t̨̂ol* 'wind' (< F-P. **tule* 'wind').
10) **t̨̂ola* 'windy' > KZ., KP. *тӧла* 'windy', Udm. *тӧло* 'windy.' Also derived from PP. **t̨̂ol* 'wind' (< F-P. **tule* 'wind').
11) **tȯlӧć́a* 'moonlit' > KZ. *тӧлыся* 'moonlit', KP. *тӧліся* 'moonlit', Udm. *толэзё* 'moonlit'. Derived from the PP cosmonym **tȯlӧć́* 'moon' (< F.-P. **tӧlć́ɜ* 'moon').
12) **šondia* 'sunny' > KZ., KP. *шондіа* 'sunny', Udm. *шундыё* 'sunny'. Derived from the PP cosmonym **šondi* 'sun'.
13) **šonditem* 'cloudy' > KZ., KP. *шондітӧм* 'cloudy', Udm. *шундытэм* 'cloudy'. Derived from the PP cosmonym **šondi* 'sun'.
14) **ṙomit* 'twilight' (KESK 1999: 244) > KZ. *рӧмыд* 'twilight', KP. *рӧмдандор* 'the time before the twilight', Udm. *жомыт* 'twilight'. Possibly derived from PP **ṙom* 'color, coloring' (< F.-P. **ṙӧmɜ* 'color') (Rédei 1988: 701).
15) **zer* 'rain' (KESK 1999: 108) > KZ., KP. *зэр* 'rain', Udm. *зор* 'rain'.
16) **ĵ̨ȯ-zer* 'icy rain (hail)' > KZ. *йи зэр* 'icy rain', KP. *йыа зэр* 'icy rain', Udm. *йӧ зор* 'icy rain'.
17) **kɛʒ́it-zer* 'cold rain' > KZ. *кӧдзыд зэр* 'cold rain', KP. *кӧдзыт зэр* 'cold rain', Udm. *кезьт зор* 'cold rain'.
18) **k̨̂ȯsk-lümɜ* 'dry snow' > KZ. *кос лым* 'dry snow', KP. *кӧс лым* 'dry snow', Udm. *кӧс лымы* 'dry snow'.
19) **lümɜ-zer* 'precipitation' > KZ. *лым-зэр* 'precipitation', Udm. *лымызор* 'precipitation'. It is not used in the Komi-Permian language.
20) **lüs-va* 'dew' (KESK 1999: 164) > KZ., KP. *лысва* 'dew', Udm. *лысву* 'dew'. In KESK (ibid) the Permian words are compared with Mari *лупс* 'dew' and a PP reconstruction is given.

21) **šondia-zer* ‘mushroom rain’ > KZ., KP. *шондіа зэр* ‘mushroom rain’, Udm. *шундыё зор* ‘mushroom rain’.
22) **šonit-zer* ‘warm rain’ > KZ. *шоныд зэр* ‘warm rain’, KP. *шоныт зэр* ‘warm rain’, Udm. *шуныт зор* ‘warm rain’.
23) **ӧl'-lümз* ‘sleet ‘ > KZ., KP. *уль лым* ‘sleet’, Udm. *ыль лымы* ‘sleet’.
24) **šo̯l'* ‘wet snow’ (KESK 1999: 321) > KZ. *шоль* ‘thawed, grainy spring snow’, KP. *шоль* ‘humid, wet’, Udm. *шуль* ‘wet, sleet’, *шуль лымы* ‘sleet’.
25) **šonit-to̯l* ‘warm wind’ > KZ. *шоныд төв* ‘warm wind’, KP. *шоныт төв* ‘warm wind’, Udm. *шуныт төл* ‘warm wind’.
26) **kɛ́ʒit-to̯l* ‘cold wind’ > KZ. *кӧдзыд төв* ‘cold wind’, KP. *кӧдзыт төв* ‘cold wind’, Udm. *кезьыт төл* ‘cold wind’.
27) **ürkit-to̯l* ‘fresh wind’ > KZ. *ыркыд төв* ‘fresh wind’, KP. *ыркыт төв* ‘fresh wind’, Udm. *ыркыт төл* ‘fresh wind’.
28) **kȯsk-to̯l* ‘dry wind’ > KZ. *кос төв* ‘dry wind’, KP. *кӧс төв* ‘dry wind’, Udm. *кӧс төл* ‘dry wind’.
29) **öj-to̯l* ‘North wind’ > KZ. *вой төв* ‘North wind’, KP. *ой төв* ‘North wind’, Udm. *уй төл* ‘North wind’.

V. Meteonymic vocabulary of proto-Komi origin is characterized by the fact that its formation occurred after the disintegration of the proto-Permian linguistic community and the separation of the Komi ancestors with the ancient Udmurts. Therefore, these words are mainly used in the two Northern Permian languages: Komi-Zyryan and Komi-Permian. They have no cognates in Udmurt. The common Komi meteonyms represent four microsystems of the studied vocabulary.

1. Designations of the state of the atmosphere:
1) **kümera* ‘overcast, cloudy’ > KZ., KP. *кымӧра* ‘cloudy, overcast’.
2) **kümertem* ‘clear, cloudless’ > KZ., KP. *кымӧртӧм* ‘clear, cloudless’.
3) **míča* ‘clear, cloudless’ > KZ., KP. *мича* ‘clear, cloudless’.

2. Designations of atmospheric phenomena:
1) **oń* ‘fog’ (KESK 1999: 206) > KZ. *онь* ‘fog’. It is not used in the Komi-Permian language. Possible Mari cognates for the protoform have been suggested.
2) **güm-ńo̯l* ‘lightning’ > KZ. *гымньӧв* ‘lightning’, KP. *гым ньӧл* ‘lightning’.
3) **ć́ard-bi* ‘lightning’ > KZ., KP. *чардби* ‘lightning’.
4) **asja-küa* ‘morning dawn’ > KZ., KP. *асъя кыа* ‘morning dawn’.
5) **güm* ‘thunder’ > KZ., KP. *гым* ‘thunder’.

6) **śöd-kümer* ‘dark cloud’ > KZ., KP. *сьӧд кымӧр* ‘dark cloud’.
7) **güma-kümer* ‘thundercloud’ > KZ., KP. *гыма кымӧр* ‘thundercloud’.
8) **šera-kümer* ‘hail cloud’ > KZ., KP. *шера кымӧр* ‘hail cloud’.
9) **jura-kümer* ‘cumulus cloud’ > KZ., KP. *юра кымӧр* ‘cumulus cloud’.
3. Designations of precipitations:
1) **šer* ‘hail’ > KZ., KP. *шер* ‘hail’.
2) **arśa-ć̌arem* ‘autumn crust’ > KZ., KP. *арся чарӧм* ‘autumn crust’.
3) **bus-kod'-zer* ‘drizzle’ > KZ., KP. *бус кодь зэр* ‘drizzle’.
4) **güriś-zer* ‘heavy rain’ > KZ. *гырысь зэр* ‘heavy rain’, KP. *гырись зэр* ‘heavy rain’.
5) **güriś-zer-vojt (vot')* ‘a large drop of rain’ > KZ. *гырысь зэр войт* ‘a large drop of rain’, KP. *гырись зэр вотьӧ* ‘a large drop of rain’.
6) **güriś-lüm* ‘heavy snow’ > KZ. *гырысь лым* ‘heavy snow’, KP. *гырись лым* ‘heavy snow’.
7) **güriś-šer* ‘large hail’ > KZ. *гырысь шер* ‘large hail’, KP. *гырись шер* ‘large hail’.
8) **zer-vojt (vot')* ‘raindrop’ > KZ. *зэр войт* ‘raindrop’, KP. *зэр вотьӧ* ‘raindrop’.
9) **zer-tuś* ‘raindrop’ > KZ., KP. *зэр тусь* ‘raindrop’.
10) **kača-šüdes* ‘snow pellets’ > KZ., KP. *катшашьыдӧс* ‘snow pellets’.
11) **kuź-zer* ‘lingering rain’ > KZ., KP. *кузь зэр* ‘lingering rain’.
12) **lüm-bus* ‘snow dust’ > KZ., KP. *лым бус* ‘snow dust’.
13) **lümjalem* ‘snowfall’ > KZ., KP. *лымъялӧм* ‘snowfall’.
14) **lüm-uśem* ‘snowfall’ > KZ., KP. *лым усьӧм* ‘snowfall’.
15) **lüm-ć̌ir* ‘snowflake’ > KZ., KP. *лым чир* ‘snowflake’.
16) **lüsva-vojt (vot')* ‘dewdrop’ > KZ. *лысва войт* ‘dewdrop’, KP. *лысва вотьӧ* ‘dewdrop’.
17) **posńit-zer* ‘fine rain’ > KZ. *посньыд зэр* ‘fine rain’, KP. *поснит зэр* ‘fine rain’.
18) **posńit-zer-vojt (vot')* ‘a small raindrop’ > KZ. *посньыд зэр войт* ‘a small raindrop’, KP. *поснит зэр вотьӧ* ‘a small raindrop’.
19) **posńit-lüm* ‘fine snow’ > KZ. *посньыд лым* ‘fine snow’, KP. *поснит лым* ‘fine snow’.
20) **posńit-šer* ‘thin hail’ > KZ. *посньыд шер* ‘thin hail’, KP. *поснит шэр* ‘thin hail’.
4. Wind designations:

1) **turep* 'blizzard' > KZ. *турӧб* 'blizzard', KP. *турӧн* 'blizzard'.
2) **ul'-t̮ӧl* 'wet wind' > KZ., KP. *уль төв* 'wet wind'.
3) **leć́it-t̮ӧl* 'penetrating wind' > KZ. *лэчыд төв* 'penetrating wind', KP. *лэчыт төв* 'penetrating wind'.
4) **č́izir-t̮ӧl* 'harsh wind' > KZ., KP. *чизыр төв* 'harsh wind'.
5) **sotan-t̮ӧl* 'burning wind' > KZ. *сотан төв* 'burning wind', KP. *сотісь төв* 'burning wind'.
6) **t̮ӧl-nür* 'gust of wind' > KZ., KP. *төв ныр* 'gust of wind'.
7) **asil-t̮ӧl* 'East wind' > KZ., KP. *асыв төв* 'East wind'.
8) **lun-t̮ӧl* 'South wind' > KZ., KP. *лун төв* 'South wind'.
9) **ürtil-t̮ӧl* 'West wind' > KZ. *рытыв төв* 'West wind', KP. *рытвыв төв* 'West wind'.

As noted above, metonyms of proto-Komi origin have no cognates in Udmurt; instead, Udmurt uses different lexemes. For example, KZ. KP. *гым* 'thunderstorm' – Udm. *гудыри* 'thunderstorm', KZ. KP. *чардби* 'lightning' – Udm. *чилектэм* 'lightning', KZ. KP. *шер* 'hail' – Udm. *йокуштон* 'hail', KZ. KP. *катшашъыдӧс* 'snow pellets' – Udm. *куакакеньыр* 'snow pellets', KZ. KP. *төв ныр* 'gust of wind' – Udm. *шуак лыктэм* 'gust of wind ', KZ. *турӧб* KP. *турӧн* 'blizzard' – Udm. *пельскон* 'blizzard ', etc.

VI. In the diachronic hierarchy of the meteonymic vocabulary, the uppermost (or latest) layer is made up of individual Permian designations, i.e. **Komi-Zyryan proper, Komi-Permian proper and Udmurt proper meteonyms**. These have arisen in each of the three Permian languages independently and are used in them separately, having neither close nor distant cognates.

1. Komi-Zyryan meteorological designations proper: *букъыд* 'overcast', *шы ни төв* 'windless', *васӧд* 'damp, wet', *востым* 'summer lightning', *йидж* 'cloud at sunset', *сибус* 'drizzle', *коръя лым* 'snow flakes', *төвру* 'light wind', *шув* 'whirlwind', *бушков* 'windstorm', *ыджыд төв* 'strong wind', etc.
2. Komi-Permian meteorological designations proper: *югыт* 'clear', *чукӧра кымӧр* 'cumulus cloud', *чарньӧв* 'lightning', *пемдандор* 'twilight', *потшша кымӧр* 'cirrus cloud', *югдыштлӧм* 'summer lightning', *борда кымӧр* 'cirrus cloud', *куш йыз* 'ice slick', *тӧлок* 'light wind', *төвчик* 'whirlwind', *ыджыт төв* 'windstorm' etc.
3. Udmurt meteorological designations proper: *куазь* 'weather', *юзмыт* 'cool, fresh', *ворекъян* 'summer lightning', *ингорд* 'dawn', *люко пилем*

'cumulus cloud', *сьӧд пилем* 'dark cloud', *зиро* 'hoarfrost', *кыдыри* 'drizzle', *сулеп* 'slush', *йӧкуштон* 'hail', *йӧвалег* 'ice slick', *инву* 'dew', *ляб тӧл* 'weak wind', *пелляськон* 'blizzard; snowstorm', *шундыпуксёнпал тӧл* 'West wind' etc.

In the composition of individual Permian meteonyms, simple, complex, and compound words differ in their structure. Like most ancient weather names, one-word formations are usually unmotivated designations. For many compounds the semantic content is clear. Usually it is associated with a specific feature of the nomination, for example, KZ. *сьӧд кымӧр* 'dark cloud' (lit. black cloud), *вой кыа* 'Aurora Borealis' (lit. night dawn), *гырысь зэр тусь* 'a large drop of rain' (*гырысь* 'large', *зэр тусь* 'drop of rain'), *кышыд лым* 'loose snow' (*кышыд* 'loose'), *ыджыд тӧв* 'strong wind' (*ыджыд* 'strong'); KP. *гыма зэр* 'thunderstorm' (lit. rain with thunder), *югдыштлӧм* 'summer lightning' (lit. enlightening, flash), *рышкыт лым* 'loose snow' (*рышкыт* 'loose'), *чорыт тӧв* 'harsh wind' (*чорыт* 'strong'), *кокнит тӧв* 'weak wind' (lit. light wind); Udm. *вошъяськись куазь* 'unstable weather' (lit. changeable weather), *сьӧд пилем* 'dark cloud' (lit. black cloud), *хын выллем бус* 'haze' (lit. fog like smoke), *тыло тусо пилем* 'cirrus cloud' (lit. cloud like bird feather), *туж кужмо зор* 'shower' (lit. very heavy rain), *ляб тӧл* 'weak wind' (*ляб* 'weak'), etc.

In many cases, motivated meteonyms, being metaphorical, figuratively express the designated phenomenon: KZ. *кулӧмаяслы зэр* 'rain in clear weather' (lit. rain for the dead), *сувтса зэр* 'shower' (lit. standing rain), *лым шебрас* 'snow cover' (lit. snow blanket), *му вӧран тӧв* 'strong wind' (lit. wind shaking the ground), *му путкылтан тӧв* 'flurry' (lit. wind overturning the ground), KP. *чарньӧв* 'lightning' (lit. arrow of lightning), *борда кымӧр* 'cirrus cloud' (lit. winged cloud), *лым вевттьӧт* 'snow cover' (lit. snow blanket), Udm. *бабылес пилем* 'cumulus cloud' (lit. curly cloud), *вуюись* 'rainbow' (lit. water drinker), *вупукран* 'rainbow' (lit. water belt, water sash), *шунды кенер* 'solar halo' (lit. the fence of the sun), *куакакеньыр* 'snow pellets' (lit. crow's croup), *кулэм муртэс ватон* 'rain in clear weather' (lit. funeral of the deceased), *рольгыри быдра лымы* 'snow flakes' (lit. snow the size of a sparrow), etc.

Loanwords form an integral part of the meteonymic vocabulary of the Permian languages. In the composition of this component, depending on the time of contact, early and late borrowings are distinguished. Two

early borrowings belong to the system of meteorological vocabulary which emerged in Proto-Permian. For the word denoting windstorm the proto-form is reconstructed as **śül-* 'windstorm, hurricane.' This meteonym is derived from an ancient Bulgar source, related to Chuvash *çил* 'wind' with cognates in other Turkic languages such as Bashkir and Kyrgyz (KESK 1999: 271). The word is documented already in Old Komi written sources: *сьыв* DP. 'windstorm, hurricane' (KESK 1999: 271). It has been preserved and is now used in some dialects of the Komi-Zyryan language: *сьыы* Vym. Izh., *сив* NV. UD. 'windstorm, strong wind' (SSKZD 1961: 356). It also appears in the latest edition of the dictionary of Standard Komi-Zyryan: *сьыв* 'windstorm; hurricane; strong wind' (KRK 2000: 627). In the modern Komi-Permian language it is not used, apparently, it was lost. In the Udmurt language, there is a cognate which, however, only occurs in compounds such as *сильтӧл* 'hurricane; windstorm', *сильнуэм* 'windbreak' (URS 1983: 389).

The Udmurt meteonym *бус* 'fog' is also considered to be ancient Bulgarian borrowing. It is compared with Chuvash *pus* 'steam', Bashkir *püs* 'steam', Chagadai *bus* 'fog' (KESK 1999: 85). The word *бус* 'dust' used in the literary Komi languages (KRK 2000: 69; KPRS 1985: 47), which has the same origin as the Udmurt designation of fog, does not belong to the meteorological vocabulary.

The group of late borrowings consists of meteonyms of Russian, Finnic, Turkic and Mari origin.

Russian borrowings occur in all three Permian languages.
Komi-Zyryan examples: *атмосфера* 'atmosphere', *температура* 'temperature', *поводдя* 'weather', *жар* 'hot', *пурга* 'blizzard', etc. (see Rakin 2016a).
Komi-Permian examples: *атмосфера* 'atmosphere', *температура* 'temperature', *погоддя* 'weather', *заря* 'dawn', *роса* 'dew', *крупа* 'snow pellets', *пурга* 'blizzard', *погода* 'wind', etc. (see Rakin 2016b).
Udmurt examples: *атмосфера* 'atmosphere', *температура* 'temperature', *мускыт* 'wet', *заринча* 'summer lightning', *северной сияние* 'Aurora Borealis', etc. (see Rakin 2017).

As the examples above show, Russian borrowings in the Permian languages, as a rule, have not undergone significant phonetic, morphological or semantic changes. In a number of cases, they duplicate the original words, cf. KP. *воздух* and *ру* 'air', *заря* and *кыа* 'dawn', *крупа* and

катша шыдӧс ‘snow pellets’, *роса* and *лысва* ‘dew’, *погода* and *тӧв* ‘wind’; Udm. *заринча* and *ворекъян* ‘summer lightning’, *северной сияние* and *уйпал инворекъян* ‘Aurora Borealis’; KZ. *воздух* and *сынӧд* ‘air’.

Besides borrowings from the Russian literary language, the meteorological vocabulary in the Permian language includes borrowings from Russian dialects. Some examples:

Komi-Zyryan: *поводдя* ‘weather’, *пакта* ‘hoarfrost; dry, fine snow’, *слӧт* ‘rain with snow, slush’, *шляча* ‘slush, sleet’ etc.

Komi-Permian: *погоддя* ‘weather’, *басӧк погоддя* ‘good weather’, *паграс* ‘cloud; dark cloud’, *шлякыш* ‘slush, sleet’, *погода* ‘wind’, etc.

Udmurt: *мускыт* ‘damp’, *заринча* ‘summer lightning’.

Some meteonyms of this category are completely identical either in the Komi language, or in the Komi-Permian and Udmurt ones. For such weather names, apparently, the same original words served as a source of borrowing :

1) KZ. *падъӧр* ‘bad weather’ (RKS 2003: 507), KP. *падер* ‘bad weather’ (KPRS 1985: 313) < Rus., cf. *падер* ‘snowstorm, blizzard’ (SRGSU 1981: 195), *падера* Nvg. Psk. Perm. ‘storm with a whirlwind, rain, with snow, winter bad weather, wet’ (Dal' 1990: 7).

2) KZ. *кижа* ‘hoarfrost; rime’ (KRK 2000: 271), KP. *кижа* ‘hoarfrost; rime’ (KPRS 1985: 172) < Rus. *кижа* VLG., *кижа* Tamb. ‘snow falling in large flakes, thick, and lying loose’ (Dal' 1989: 197).

3) KZ. *шлякыш* ‘slush, wet snow’ (KRK 2000: 736), KP. *шлякыш* ‘slush, wet snow’ (KPRS 1985: 561) < Rus., cf. *слякиша* Sib. ‘slush, sleet, snow with rain’ (Dal' 1991: 230).

4) KP. *мускыт* ‘damp’ (KPRS 1985: 259), Udm. *мускыт* ‘damp’ (URS 2008: 444) < Rus., cf. *мусклый* ‘cloudy’, *мусклая погода* Vald. Novg. (SRNG 1982: 364).

With regard to the last two examples, it should be noted that in the borrowing process a semantic change has also occurred, instead of ‘cloudy’ the word acquired the meaning ‘damp, wet’ in the Permian languages. In the process of morphological adaptation, the primordial suffix -ыт was added. This suffix occurs not only in meteorological designations (KP. *кӧдзыт* ‘cold’, Udm. *кезьыт* ‘cold’, KP. *шоныт* ‘warm’, Udm. *шуныт* ‘warm’, KP. Udm. *ыркыт* ‘cool’), but also in a number of other adjectives: KP. Udm. *курыт* ‘bitter’, KP. Udm. *паськыт* ‘wide’, etc.

The other three types of borrowings have a differentiated distribution. Meteonyms of Finnic origin occur in Komi-Zyryan, those of Mari and Turkic origin in Udmurt.

The group of Finnic meteorological borrowings consists of two words:

1) *чита* 'hoarfrost' (KRK 2000: 708) < Finnic, cf. F. *siide, siite* 'frozen vapors', Livvi *t'siide* 'small rain' (KESK 1999: 308).

2) *гумыльга* 'whirlwind' (KRK 2000: 163) < Finnic, cf. Kar. *kumoal'l'ah, kumoallah*, Livvi *kumualleh*, Ludic *kumudi* 'upside down', F. *kumota* 'to overturn, to turn over' (KESK 1999: 82).

The group of meteonyms of Turkic origin in Udmurt consists of five words:

1) *салкъым* 'cold, frosty' (URS 2008: 586) < Turkic, cf. Tatar *салкъым* 'cold, frosty' (TRS 1966: 464; Tarakanov 1993: 111).

2) *акшан* 'twilight' (URS 1983: 26) < Turkic, cf. Tatar *ахшам* 'evening, twilight' (ESUJ 1998: 72).

3) *решо* 'heat haze; haze' (URS 1983: 378) < Turkic, cf. Tatar *рәшә* 'haze' (TRS 1966: 456).

4) *кырпак* 'newly-fallen snow; hoarfrost' (URS 2008: 378) < Turkic, cf. Tatar *кырпак кар* 'newly-fallen snow; the first snow' (TRS 1966: 312), Bashkir *ырпак ар* 'the first snow ' (BRS 1958: 360) (see Tarakanov 1993: 94).

5) *дау, даул* 'windstorm, hurricane' (URS 2008: 122) < Turkic, cf. Tatar *давыл* 'windstorm' (TRS 1966: 50).

The fourth type of borrowings in Udmurt language, words of Mari origin, is represented by one example:

тутыра 'fog, haze' (URS 2008: 666) < Mari, cf. *мӱтыра* 'fog' (MPS 1991: 354).

In general, as the statistics show, the foreign language component of the meteorological vocabulary consists of 64 designations, of which 16 occur in Udmurt, 20 in Komi-Zyryan and 28 in Komi-Permian. In the Udmurt and Komi-Permian languages, borrowings are represented in all five microsystems of meteorological vocabulary, in Komi-Zyryan, in only four of them: in the group of names of atmospheric phenomena, consisting entirely of original meteonyms, they are absent.

Thus, the meteorological vocabulary of the Permian languages is a multi-component (in terms of object and conceptual content) and multi-

layered (in terms of origin) independent system. Its formation and development took place at all important stages of the history of the Permian languages: in Proto-Uralic, proto-Finno-Ugric, proto-Finno-Permian, proto-Permian, proto-Komi and in subsequent periods. The basis of the meteorological vocabulary of the Permian languages is the primordial fund. The foreign-language component, which began to emerge in the common Permian epoch and derives from five external sources, is relatively small and has had no significant impact on this part of vocabulary. The theoretical and practical significance of the study lies in the fact that the technology of development of this topic, created by the author of the report, can be used in other languages.

Abbreviations

DP. – Old Komi (Old Permian), F. – Finnish, F.-P. – Proto-Finno-Permian, Izh. – Izhma dialect of the Komi-Zyryan language, Kar. –Karelian, KP. – Komi-Permian, KZ. – Komi-Zyryan, NV. – Low-Vychegda dialect of the Komi-Zyryan language, PP. – Proto-Permian, Rus. – Russian, Ud. – Udora dialect of the Komi-Zyryan language, Udm. – the Udmurt language, Ur. – the Uralic proto-language, Vym. – Vym dialect of the Komi-Zyryan language.

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Helena Ruotsala

Transnationalism and multilocalism. Case studies from the Tornio river valley and Mari El

"Make sure to bring your identity card, since checks are being carried out at the moment at the border." This is what my local friends advised me when I travelled to Haparanda in the winter of 2016 for an event. In the autumn of 2015, about 30,000 refugees had come to Finland via Sweden; it was called a refugee crisis, and there, at an internal EU-border, checks were being carried out (Ruotsala 2019, 24). I had crossed this border between Finland and Sweden numerous times in the twin city of Tornio-Haparanda for decades before I started doing research there and I had never had my identity checked. Nor did it happen then either, in February 2016, even though I crossed the border several times on that visit.

Thank you for the invitation to speak at this congress, which has already been postponed twice. In the summer of 2020, however, it was organised as a webinar and I gave a presentation on the very cause of the postponement of the congress, the Covid-19 pandemic, and its impact in the Tornio river valley, where the state border has been invisible for decades, until the coronavirus made it reappear. That presentation is the basis of my article published last year in the Hungarian Studies Yearbook. (Ruotsala 2021, 147–162.)

In this presentation, on the basis of my own research I will open up the concepts of transnationalism[1] and multilocalism, which are recognised in many Finno-Ugric communities, as well as here in Central Europe. For

[1] Although 'transnationalism' is a term often applied to the topic under consideration in this article, a more precise rendering of the Finnish term *ylirajaisuus* would be 'cross-borderism'. This reflects more accurately the focus of my study, which is on borders and their effects on life, whether they be local, provincial, national or international. This should be borne in mind whenever the word 'transnationalism' occurs, which, nonetheless, I retain in the English presentation given its usage elsewhere and its greater manageability than 'cross-borderism'. See e.g. Martikainen et al. 2006, 24; Nissinen 2016, 68.

border residents, borders are a mundane affair, yet also an important one, and one that is moreover subject to changes.

Ethnic diversity and the varying faces of immigration and multiculturalism are reflected in many ways in ethnological research. Borders and border areas have always fascinated ethnologists, and changes taking place around the world emphasise the timeliness and importance of research into borders and border areas; perspectives on their study have moreover themselves been the target of change (Snellman 2017, 108–109). For us in Finland, Karelia has been the object of devoted research *par excellence* (see, for example, Hakamies 2005; Lähteenmäki 2010; Häyrynen 2006), while the Tornio river valley between Finland and Sweden has been studied, for example, by geographers (see, for example, Paasi & Prokkola 2010; Häkli 2009) and linguists (Vaattovaara 2010). Similar border areas across Europe have been studied by scholars in many other disciplines in addition to ethnologists (see, for example, Lozovik 2009; Becker 2007; Löfgren 2008; Eisch 1996).

Borders do not last for ever, even when boundary markers are physically carved in stone. Geopolitically, a border is presented as an abstract line that contains little information about the areas or histories it divides. It expresses only an absolute division of space that denies the gradual differences formed through history, the continuums, the overlaps that are concrete for residents that experience the border day in, day out. The border may have been drawn close to one's own home, across fields or even through the yard. For example, after the peace of 1809 in the Tornio river valley, the fields of some farms remained on the other side of the border, or the village church and cemetery remained in the neighbouring state. Today, borders have become increasingly complex and intricate. (Häyrynen 2006, 1.) Borders are conceived as dynamic processes, as social and constructed institutions and as symbols. Borders are tools for the management of social space and part of the process by which places and their identities are produced. According to Doreen Massey (2003, 73–74), borders are the result of the drawing up of social boundaries, and they cut through other relationships that make up the social space. They determine the movements of both capital and people. Borders arrange social space and drawing them up is an exercise of power.

Borders not only separate, but also, from the perspective of this presentation, unite; they are crossed and they can be used in many ways for different purposes. Local people as well as organisations, firms and other businesses use them. Borders are used in politics, both local and national, where examples may be found close at hand. But perhaps these phenomena have been referred to under different terms in the past, and words such as transnationalism or multilocalism have not long been in use. Things have, anyway, always worked in the way indicated in the terms used in the title. The examples I use here come from my recent ethnographic field research. At the start, I mentioned the twin city of Tornio-Haparanda, where I have studied the transnationalism of everyday life and identity construction. Haparanda is a Swedish city and Tornio is Finnish. The cities have grown together, but there is an international border between them. This is why they are referred to as a twin city. The cities along with their organisations have "helped" this shared growth in various ways (Häkli 2009, 213–214).

My second example is from Russia, from Mari El and its rural village of Uncho, where I have conducted field work several times, first in the early 2000s and lastly in the summer of 2019. Uncho is right on the border between the Republics of Mari and Tatarstan, and this situation has had a significant impact in Uncho for the livelihood of the villagers, as my field work from the 2000s showed. It was my intention to go there for field work again, but first it was blocked by Covid-19 and now it has been prevented by Russia's immoral attack on Ukraine, which has had major impacts on the academic world more widely.

Transnationalism

But what is meant by transnationalism? In the early 1990s, there was talk of a transnational turn, especially in research into ethnicity and immigration. Transnationalism offered a tool to see and understand better the particular features found in earlier theories that focused on assimilation. In humanities and social science research, this put in the spotlight precisely the everyday existence that migrants or people living at the border lived. (Schiller, Basch & Blanc-Szanton 1992; Martikainen et al. 2006, 23–24; Häkkinen 2020, 33.) In ethnology and other subjects exploring the national

paradigm, it has signified a new perspective on previous local and national research. It has also often involved criticism of methodological nationalism. (Vertovec 2009, 3; Martikainen et al. 2006, 24.)

One significant change in the transnationalist approach is that it does not necessarily take the nation-state or ethnic group as a natural, self-evident subject of research (Brudbaker 2013; 17, 42–45; Häkkinen 2020, 33). In studies of this kind employing methodological nationalism, the nation-state perspective has been emphasised. Hence, transnationalism challenges methodological nationalism and ethnicism, i.e. key concepts such as Finnish, Swedish, Mari, Udmurt or even multicultural and Finno-Ugric. Instead of the geographical and cultural, attention needs to be paid here to an ambivalent field, viewed in ways different from hitherto, where these phenomena, previously seen as national, are now seen as broader and more ambivalent. This must also be accompanied by the exercise of power and ownership; whose culture is it, and what voices are heard? For example, in the birth and spread of the *Kalevala*, publicised as the Finnish national epic, transnationalism is now seen as an important factor. (Grönstrand et al. 2016.)

In short, then, transnationalism refers to movement, activity and sociocultural existence across borders – national, linguistic, cultural, symbolic, institutional and geographical. Completely new areas, spaces and cultures are created here as these existing borders are stretched and crossed for a variety of reasons (Nissilä 2016, 68). In addition, the cross-border perspective raises questions about how the multicultural traditions of migrants from elsewhere and their descendants' structure or possibly shape the image and cultural life more broadly of their current country of residence. This comes to the fore in both of my research topics as well as in many other studies. For example, in her study of three-generation transnational families, Hanneleena Hieta has investigated the role of grandparents living in another country through travel, goods sent and virtual space in Finland (Hieta 2017, 57–59).

There is no unified transnational theory, but it can be understood as an approach by which to examine the phenomenon (Faist et al. 2013, 9–10; Nissilä 2016, 68). It is used, for example, to emphasise cross-border social, cultural, political and economic connections, ties, events and behaviours (see e.g. Vertovec 2009, 3–9). These connections must be long-

term or regular, as no short-term trips, let alone tourist visits, count towards transnationalism.

Although transnational studies have shifted the perspective away from nation-states and ethnic groups, many scholars, such as Peter Kivistö (2001), have pointed out that nation-states and locality play an important role in regulating mobility and immigration. The role of states in both enabling and restricting migration and cross-border mobility became clear during the past – or continuing – pandemic in the Tornio river valley (Ruotsala 2021, 155–157).

In addition to transnationalism, many recent studies on migration have used the term translocal, with a particular focus on socio-spatial dimensions and localisation. It places more emphasis on connections between places, where crossing a border is not essential, but rather the movement of people between two places. Thus, in accordance with the prevailing binary way of thinking, migrants do not want to be seen only as moving towards the community they have entered or into their own homeland. For example, research has been conducted into family connections between Finland and Estonia or between Finland and Russia, such as child–parent care connections across borders. It is noteworthy in both this translocalism and transnationalism that action and communication, it is suggested, can be simultaneous and in both directions (Assmuth, Hakkarainen, Lulle & Siim 2018, 3–33; Siim 2021, 165–167).

In my own research, I have also used the concept of multilocalism, as I do not observe the subjects of my research as immigrants (or emigrants), but have wished to emphasise how people use the network formed by a multiplicity of places in their daily lives. These places may be located on the other side of an international border or they may be places situated between the city and the countryside, for example. Johanna Rolshoven (2008) sees multilocalism, which she has investigated deeply, as a broader cultural system of movement, traffic and direction. Attention is paid to everyday life and its routines. My question is how everyday organisation works between two or more places in living, working, leisure activities or social relationships (Rolshoven 2007, 189; Ruotsala 2011, 197–198; Siim 2021, 165–166).

Next, I will look at transnationalism (cross-border life) and multilocalism in two Finno-Ugric settlements, the Mari republic and the Tornio

river valley. These examples are presented each in a slightly different way, reflecting the nature of my field work. Following Georg E. Marcus (1986, 165–170), my field work might be characterised as multi-site field work, as the field consists of a network of many localities; the field as it were containing several fields.

In the Tornio river valley, transnationalism is clearly visible at three different levels: firstly, at the level of states or cities, secondly, in the life of various organisations, and thirdly, in the daily life of regional workers on both sides of the border (Martikainen et al. 2006, 24). In Mari El, I only look at the cross-border aspects of local residents' lives, as the subject of research was the village of Uncho and its inhabitants. I follow the interests of Laura Huttunen, for example, who has suggested, on the basis of her own research, how a cross-border living space is formed; in this, I make use of Henry Levebre's contribution to construct a lived space (Lefebvre 1992, 41–42; Huttunen 2006, 55–56). According to Michel Certeau (1996, 94), space is seen as lived through behavioural actions. Various places may be significant for interviewees in different ways.

Transnationalism in the Mari Republic

Transnationalism and multilocalism networks and contacts became apparent in the field work in Uncho as early as the early 2000s. The villagers gave examples of how their own personal history or that of family members was already linked with many places in different parts of the vast country in Soviet times. They went to work where it was ordered, and vacations could be spent in the warmer places of the then Soviet Union. Social relationships and family contacts are still significant today, but now they can also be managed through social media applications. (Volodya)[2]

The village of Uncho (in the Republic of Mari) and Kazan (the capital of Tatarstan) both belong to Russia, but the border between the republics runs a few kilometres from Uncho. The proximity of Tatarstan and

[2] There are no archive signatures in the fieldwork notes or interviews yet, but they are archived in The Archives of History, Culture and Arts Studies, Collections of Ethnology, TYKL. Interviewees are referenced under pseudonyms.

Kazan was evident in the lives of the villagers in many ways. The journey to Kazan is also faster than to Yoshkar-Ola, the capital of Mari, in terms of both time and distance. For practical reasons alone, Kazan is important in many ways, and because of its close location, it is an important city for work and study for many Maris. There are multi-level educational institutions there, from colleges to universities. The transport connections are also better than to Yoshkar-Ola. (Ruotsala 2009a, 65: Lehtinen 2009, 37.)

My field work indicates that the people of Uncho prefer to go to Kazan rather than to the rest of the Mari republic to study (Ruotsala 2009a, 65).[3] Relatives or acquaintances already living in the city can assist in getting an apartment or it is possible to start off by living with them. A job can be found more easily here in a growing city than in the increasingly depopulated Mari countryside or Yoshkar-Ola. There are no language difficulties, as Russian is the language of school and the city. The language shift from Mari to Russian was clearly visible in a rural village like Uncho in the summer of 2019 (Ruotsala & Kalašnikova 2020, 259).

For example, Elizaveta, who was born in Uncho, said at the beginning of her interview:

> Many people from Uncho are studying in Yoshkar-Ola and Kazan. If young people have a good education, they will move on. They go to study and find their own way in life, not coming back to the village ... because there is no work in the village. Not everyone wants to go to work on a collective farm. Many from the villages also visit the big cities to fill their pockets. The reason is work and money. (Elizaveta)

Many of the villagers I interviewed had their own children or relatives who had moved to Kazan. An example is the son of Nadya, whom I interviewed at Uncho in 2019, Stanislav. He is about 25 years old, attended primary school in the village and then went on to continue his studies in Kazan, where his uncle already lived. Later, he found both a job and a wife in Kazan, but Uncho was an important place for him because

[3] There are no archive signatures in the fieldwork notes or interviews yet, but they are archived in The Archives of History, Culture and Arts Studies, Collections of Ethnology, TYKL. Interviewees are referenced under pseudonyms.

of his mother and grandfather living there, as well as for the food available there. While working in the field, it was interesting to follow Stanislav's wedding preparations, as he often called his mother about the choice of wedding costume or other wedding celebration arrangements (Nadya).

Kazan is also a purchasing place for the villagers, as the field work highlighted; for example, how a cake for a girl's wedding was bought from there. Kazan was also important because party clothes were bought there. The city also offers good choices for clothing and electronics purchases, among other things.

In addition to being a place to shop, Kazan acted as an important outlet market for villagers in the early 2000s, who were then living on a relatively self-sufficient food economy (Aaltonen 2022, 88–90). Milk, potatoes, berries or honey left over from their own consumption were sold to Kazan with its million-plus inhabitants. Cattle were kept in almost every house at the time and a Kazan milk truck came to pick up surplus milk a couple of times a week. The market for the local cooperative, the collective farm Peredovik, was also found both in Kazan and further afield, such as Siberia, where a lot of potatoes were sold. (Ruotsala 2009a, 64–67.) In the summer of 2019, when asked about milk production, I was told that keeping cows was not profitable and many private families had given up livestock farming. It was easier to buy dairy products from the shops, it was explained to me.

Uncho is a popular holiday or weekend place to visit for many who have moved to Kazan or elsewhere. They came to rest, help relatives, take care of the vegetable garden or pick berries. Taking part in the memorial service in *Semyk*[4] and the flower festival, *Peledesh Payrem* [Flower Festival], also brought folk to the village, as there are also Mari villages on the Tatarstan side whose residents want to celebrate the Mari Peledesh Payrem on the Mari side of the border. In Tatarstan, the corresponding feast was *Sabantui*, which the Mari there did not recognise as their own. Kinship was emphatically important to them.

Grandchildren living elsewhere spent their summers in the village. In the courtyards of the houses, smaller summer houses were built for

[4] Mari *Semyk* is associated with ancestor worship and it is one of the most popular holidays of the Mari people. See Molotova 2017, 446.

summer guests, or the houses were emptied and filled with holiday-makers. For example, Arslan, who lives in Kazan, came with his family to build a sauna at weekends. Uncho also signifies an important food supplement for his family, as he brought strawberries, tomatoes, cucumbers, berries and potatoes, for example, from his former home (Ruotsala 2009a, 59; notes 2019).

The importance of Kazan was also emphasised for many in the fact that those living in the village were registered in Kazan. For example, Georgiy was registered in Kazan at his son's place, so he could take advantage of the city's medical services. For example, he had been operated on at a hospital in Kazan, and he went there to see a doctor several times during 2019 (notes 2019).

There are fewer and fewer jobs to be found in the village, and the villagers's places of employment are often located in Moscow, St Petersburg or the Siberian oil and gas fields, which the villagers call "the North". Following the example of her cousins, Nadya, whom I mentioned above, went to work there because her work in the village came to an end. Being employed in Siberia meant two months at work and then two months off in Uncho. Marina (33 years old), who worked in Yambor (located in Siberia), said that she went to the north for work only for the sake of money, because, according to her, "Life is here [in Uncho]. ... I am Mari, my soul is Mari". The well-earned income of those employed in Siberia is also visible externally in the village, as the earnings are used to build new houses or repair and equip old ones (Marina; notes 2019).

Transnational life may also be restricted. Tatarstan is Muslim while in the Republic of Mari, especially Uncho, vernacular folk belief is recognised. We were able to observe the consecration rituals of the "Vyd Ava" [Water Mother] in June 2002. This ceremony was held at a spring, *Abakir pamash*, a few kilometres on the Tatarstan side. According to the Uncho people, the Muslim Tatars do not like the fact that the Mari come to the water consecration ritual on their side, so two Muslims had been buried in the area a few years earlier (Ruotsala 2009a, 65, 68).

Transnationalism has a long history in the twin city of Tornio-Haparanda

Now to my second example, the Finnish–Swedish border, where transnationalism can be viewed on three different levels, as I mentioned earlier. Sweden lost the Finnish War in 1809 and Finland became part of imperial Russia. The border between Sweden and Finland had to be defined, marking the boundary between Sweden and Russia. After the peace negotiations, the border ran along the Muonio and Tornio rivers, with the exception that Suensaari, where the city of Tornio was located, came to Finland, i.e. to Russia of the time.

The border was drawn in the middle of an area where the same language was spoken, livelihoods had the same basis, and the religious milieu was also the same, namely, defined by Laestadianism, a religious revival movement within the Lutheran church. The new border came in the middle of the Finnish-speaking area. It split families, houses, farms and villages, parishes and resource areas. Still to this day, kinship knows no border, and relatives and friends live on both sides of the border. The lands of a family could remain in the territory of another state, and in many cases the churches and cemeteries remained entirely on the other side of the border. In this way, those who became residents of another country for years used churches and cemeteries belonging to another state, as the establishment of new congregations and the construction of churches and cemeteries took years. On the Swedish side, just opposite Tornio, Haparanda was established for trade and traffic, which later grew from a small village to the present town of more than 9,000 inhabitants. Tornio now has a population of about 22,000.

Customs control was avoided in many ways and in the last century, for example, smuggling was important, and even like an industry, during both the First and Second World Wars and up until the 1960s. During the First World War, the border attracted a variety of migrants – political events such as the war and Finland's independence saw to this. Tornio-Haparanda was at the forefront of world politics, since it was possible there to exchange prisoners in the First World War between the Eastern and Western fronts, as Sweden was a neutral state. At that time, soldiers, spies,

journalists, traders, smugglers and stars of the entertainment business met in the galleries of the Haparanda hotel.

Smuggling is even said to have raised Finnish Lapland to its feet faster than the rest of Finland after the devastation of the Second World War. After all, Sweden was not involved in the war, and most of Lapland's residents fled over to Sweden when the German army, which had previously been collaborating with the Finns, destroyed Lapland, using scorched-earth tactics as they withdrew to northern Norway. The following spring, the inhabitants returned. (E.g. Ruotsala 2009b, 30–35.)

These cities have gradually grown together, a process helped by the cross-border co-operation between them, as in many matters the cities have joined forces and resources. The name Tornio-Haparanda twin city has been used in the advertising and branding of cities. Since the 1960s cooperation has increased, e.g. the joint waste-water treatment plant (1972), landfill (2002) and joint procurement of fire and rescue services. In 1987, the co-operative organisation *Provincia Bothniensis* was set up to expand, deepen and develop co-operation. Many city councils and officials have been co-operating for a long time, especially on the cultural and tourism side. Similarly, joint meetings are held regularly in many areas of concern. (Nousiainen 201, 433–437.)

There is considerable back-and-forth movement in co-operation between cities, which the pandemic in 2020–2022 exacerbated. One politician, who has long been involved in this cross-border co-operation, also thinks that the situation is symbolically deplorable:

> "Throughout my political life, I have worked to remove the border between Tornio and Haparanda. Once upon a time, we were at the cutting edge of Europe's cross-border co-operation. Today the border was closed, a necessary act, say those in charge in Helsinki. But they have never lived here. Now we are sundered in twain!" (Ruotsala 2021, 154.)

After the countries joined the EU in 1996, co-operation intensified further. For example, the Victoria Square connecting the cities was built partly with EU funding. Not all the buildings planned for the market are yet ready on the Swedish side. A symbolic *Krannikatu* ("Neighbours' Lane") was built to connect the cities in 2005. Working together saves resources

but requires work, as collaboration has not always been understood in Helsinki, Stockholm or Brussels. Laws and regulations have had to be shuffled under the carpet slightly; for example, on the Swedish side there is a Finnish Post Office mailbox, and a Swedish mailbox was in front of the Tornio post office. The letters dropped in these have to be franked so the mail from Haparanda to Finland did not have to travel all over Sweden via Stockholm and from there to Helsinki and back again, perhaps right to Tornio. And similarly in Sweden. This was done completely without permission from higher authorities.

One example was the century-old Tornio provincial museum, which was renovated in 2014 and can be called the first cross-border museum in Europe, as it became a joint museum for the entire Tornio river valley, co-managed and funded by the neighbouring towns of Tornio and Haparanda. Museum visits are on the school programme in both cities. The museum is bilingual, or actually trilingual: Finnish, Swedish and Meänkieli, which is a local variation of Finnish in Tornio river valley. In the displays, the Tornio river valley is presented as a shared feature of both nations.

Schooling has been important from a cross-border perspective. The agreement on free cross-border schooling was decided at elementary school level in 1978 and has been extended up to upper secondary school. The cities' joint language school has been operating since 1989. The same number of students is admitted from both countries and the school operates according to the Finnish model, but on Swedish soil. Bilingualism is an asset and the principle of this school, which, hopefully, will continue to be the case in the future.

The possibility of using the Finnish language attracts some Finnish-speaking residents to Haparanda. In these circumstances, they can also take advantage of the services of their former homeland behind the border. Many of them also have a summer cottage in Finland and it increases the attractiveness. Conversely, those living in Tornio often have a summer cottage in Sweden.

After the border was drawn in the midst of the Finnish-speaking following the events of 1809, Finnish continued to be widely spoken in Haparanda well into the twentieth century, although the construction of the railway and Swedish state policy, such as the school system, were

significant factors in swedenising the area. The Finnish language was preserved in mixed marriages when the spouse came from Finland, and Laestadianism was important. The importance of mixed marriages in kinship and social relations has been considerable.

Since the 1950s and 1960s, workforce migration from Finland to Sweden has been strong. In recent years, the Finnish-speaking population has also grown because of the retirement of Finnish speakers from southern Sweden to Haparanda, thanks to its proximity to Finland and Finnish-language services. Still, the official position of the Finnish language in Haparanda has not been strong in the twenty-first century, even though there have been many Finnish speakers. "I don't speak Finnish, but my subordinates can" was the response when I interviewed staff from the social and health services in Haparanda.

There are also cross-border activities at the intermediate level; various organisations and associations such as sports clubs and societies operate on both sides of the border and have members from both states. Exercises and games operate in two languages, as do meetings. People can pursue hobbies and attend association events across the border, and citizenship has not been an obstacle here.

Collaboration and transnationalism at the city and intermediate levels affect how transnationalism works at the micro-level in the everyday lives of the inhabitants of the area. The border can still be said to define economic, social and cultural relations in the Tornio valley, since it is visible in people's daily lives and in part as a kind of everyday nationalism. These 'border folk' live at the border and develop their knowledge and skills to make use of both sides of the nation-state border, locally and regionally (Löfgren 2008) and have learned to use the territory in different ways; they may be commuters, students, pupils, employees, pensioners, shoppers, cultural consumers, tennis players, and so on.

People have lived transnational lives, although this designation has not been used before. The territorial dimension has always been present at the border, but how it has been used has depended on states and their political systems. People living at the border have special knowledge and skills to know where and what to buy, acquire or do. (See e.g. Lunden & Zalamans 2002; 34–36, 40.)

Everyday transnationalism is a reality for many, as work and residence or school may be on the other side of the border, and likewise relatives and friends. It can also be seen in everyday small things, such as a Finnish newspaper being delivered on the Swedish side or prescriptions being taken to pharmacies in both countries. Transnationalism is also evident in interior design, clothing, leisure and food culture. Hobbies and going shopping on the other side of the border have been quite natural for a long time. Similarly, shopping tourism has long been familiar in this area, although today prices are no longer have so much influence on shopping; it is rather the choice on offer and the foods people are used to.

The Tornio river valley is a single economic area divided by a national border. The recent pandemic did not take this into account, as neither governments nor policy-makers understood that this was a single economic area. Although the border between Finland and Sweden marks a change in time and currency, it has always been possible to cross these borders. Today, in the age of credit and debit cards, there is no longer a need for multiple currencies and purses, as in the past, when, before the time of the EU, exchange rates could change the direction of shopping tourism even overnight (Ruotsala 2011, 215–217).

How everyday transnationalism works for the area's populace became apparent when the Covid-19 pandemic struck. "This time feels strange. Before, the border 'wasn't there', but there it is now. It's no longer a time when you can go and fetch some sweets from Haparanda, as it was just a week ago like any normal day." This quotation from a forty-year-old mother is just one example of how there is no border for these people; they make use of shops and other services on both sides of the border. The border was not even noticed in everyday life, but now things were different, as one of my interviewees, who had long been working in Tornio but had been living in Haparanda, related:

> "Although we're two different countries, you didn't notice the border in everyday life before, until now, when it's closed. It feels sad when you can't visit your little sister or do business on the Finnish side. It feels sad and strange." (Ruotsala 2021, 153–154.)

The place of work or study may be on the other side of the border. More people work across the border in Tornio (in Finland), than people living in Finland work in Haparanda. The wage level is higher in Finland, but the difference between the euro and the krona may alleviate this. People are drawn to Haparanda by cheaper plots of land and apartments, as well as better access to housing. Free childcare and better social services are also an attraction to move to Sweden. National legislation does not always keep pace with change, as social benefits in the event of unemployment or the birth of a child do not always work flexibly. Also, the issues of a frontier worker, i.e. a worker in their country of non-residence, are no longer as well recognised in tax offices or social security institutions of the municipalities as before, as states concentrate these services in larger cities.

Because there are a lot of mixed marriages and cross-border work movement in the area, both childcare and parental help are a significant part of this cross-border activity. This was particularly evident during the pandemic, when it was only permitted to cross the border for specific reasons. Parental assistance, visits and temporary grandparent childcare suffered as a result. There were also problems for those children who lived on alternate weeks with a parent living on the other side of the border.

Conclusion

People have lived a transnational life, although it has not always been so named. The regional dimension has always been present at the border. How it is used has depended on states and their political systems. From a multi-disciplinary perspective, the border is both a tool for organising social space and part of the process for constructing and creating places and identities. Experiences and descriptions of the border form identity narratives (Massey 2008, 29–31).

Multilocalism, as well as the continuum and networks of places and mobility, may in turn lead to the emergence of new kinds of place identities and communal roles that are in a liminal state relative to traditional ways of conceptualising people's relationship to places. Multilocal people do not think about their identity, as being either/or: they can have an identity as both/and as well. This has come to the fore especially in the twin city of

Tornio-Haparanda, where negotiations of identity form one of the circumstances focused on as a theme in my fieldwork. This was harder to establish in the case of the Mari material.

As areas shared a common history, language and culture in the Tornio river valley, everyday co-operation across the border gained momentum, as the border has been open except in wartime. The inhabitants of the area have never really thought of the border as a border, but considered it as an administrative artefact. Everyday life has been lived as if the border did not exist. The recent pandemic once again foregrounded the border, and matters of cross-border everyday life were paused for a couple of years. Now we are thinking about how to heal the wounds of the pandemic.

Before the pandemic, there were about 40,000 border crossings a day in Tornio. During the coronavirus period, they decreased significantly, so that in the summer of 2020 there were about 15,000 to 20,000 crossings a day. In May 2022, border traffic has almost normalised, with data from customs showing that there are about 14–15 million people crossing the border annually in Tornio (i.e. approaching 40,000 a day). The Tornio border crossing point is the second busiest in Finland after Helsinki-Vantaa Airport (See Finnish customs).

I have also looked here at multilocalism stretching over the national border. The border continues to strongly define the economic, social and cultural relations between the people of Tornio-Haparanda – and indeed of the entire Tornio river valley. It is visible in people's everyday lives and can be seen as a form of everyday nationalism (see Billig 1995). As an example of multilocality over the generations, Tornio-Haparanda, as I have presented it, supports the views of the geographer Eeva-Kaisa Prokkola (2008) that younger people's experiences and stories about the border and cross-border activities are part of everyday routines, while the attitudes of older generations are affected by their experiences of war and times of reconstruction, and of years of work in the south. The everyday life of border residents is cross-border and multilocal. At the same time, it is also polyphonic and multi-nuanced, and emotional ties play an important role in that. The importance of emotions was also highlighted in the Mari interviews. It is good that today, sensory ethnology, and through it the importance of emotions, is also becoming important in research.

(Translation: Docent Clive Tolley)

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Anna Verschik

Impact of Estonian on local Russian now and then: similar or different?

1. Introduction

The purpose of this article is to compare the impact of Estonian on the local Russian varieties of two different groups of population: so-called old settlers, mostly dwellers of the Western and Northern coast of the lake Peipus, and Soviet-era newcomers and their descendants. Such a comparison would be instructive from a theoretical point of view and I am surprised that this topic has been addressed minimally so far (for instance, Külmoja 2009). I am posing a very general research question: what the differences and similarities in contact-induced language change (CILC) in both groups are and how the differences and similarities can be explained.

A relevant question is, what a comparison of contacts between the same or very similar varieties in different sociolinguistic situations/in different localities tells us. A lengthy discussion was provoked some time ago by the work of Treffers-Daller (1999) who contested the basic assumptions of Thomason & Kaufman (1988), claiming that structural factors are decisive for the results of CILC. She compared contacts between Romance and Germanic varieties in Strasbourg and Brussels and found that the outcome is fairly similar. Both structurally oriented scholars (Poplack 1999) as well as sociolinguistically oriented ones (Beeching 1999, Sebba 1999, Singh 1999, Stolz 1999, Thomason 1999, Winford 1999) have contested this view (in more detail: Verschik 2008: 7–8). They believe that the similarities cannot be accounted for by structural factors exclusively. High literacy (unlike many case studies of pre-literate societies considered in Thomason & Kaufman 1988), the high prestige of French and shift to French that had occurred due to it may have contributed to the similarities described in Treffers-Daller (1999). In sum, the case for the exclusive

relevance of structural features (or irrelevance of sociolinguistic factors) was not made.

The discussion took place prior to the advent of cognitive contact linguistics (CCL, see Backus 2012, 2014, 2015, Zenner et al. 2019). CCL advocates a usage-based approach (Backus 2014, 2015), meaning that (1) linguistic analysis is preferably based on naturalistic language use (bottom-up analysis) and (2) is not rooted in constraint-based conceptualization of CILC. Significantly, CCL strives for a synthesis of structural, cognitive and sociolinguistic factors. Universal patterns of human cognition may be among the reasons behind similarity of CILC in different settings. As argued by Backus (2014: 91–92), the conceptualization of language knowledge differs in formal and usage-based cognitive approach: in the latter, it is not a knowledge of items, structures and patterns but also general categorization and selection skills as well as an ability to make appropriate choices for a given interaction. That is, if we have a sociolinguistically dominant language A, it would be likely that speakers of language B, although with different proficiency in A and in different settings, may categorise linguistic items of A in the same or at least similar manner. Moreover, cognitive and social aspects of language competence, change and use are interdependent and interconnected: communicative experience impacts cognition and cognition affects the choice of appropriate items and models in a given sociolinguistic situation (Blommaert & Backus 2011, Verschik 2019).

In addition to this, there is ample evidence of violation of many proposed formal constraints in Russian-Estonian language contacts (Zabrodskaja 2009, Zabrodskaja 2013, Zabrodskaja & Verschik 2014). That is why I opt for a flexible descriptive model. In this paper, I use the Code-Copying Framework (CCF), developed by Johanson (1992, 1993, 2002, 2006, 2008, 2013), which is compatible with usage-based approaches and the postulates of CCL.

It will be demonstrated that Estonian impact appears at the same language levels (lexicon, semantics, non-core morphosyntax) and that there are similarities in the treatment of Estonian compound nouns and analytic verbs. Some phenomena, mostly in the domain of multilingual speech, cannot be compared because they were not attested, not sufficiently described and, maybe, not looked for in older studies on the old settlers'

bilingualism from the 1960s–1970s (see Section 3, discussion on metalanguage). There is also a difference in genres: Külmoja (2009: 19) emphasises that the Russian of old settlers is oral only, while modern Russian is used also in written texts (media, public information). I would also add language usage in computer-mediated communication (Verschik 2016). Indeed, the genre may affect the choice of linguistic resources: for instance, an article in a Russian-language newspaper is supposed to be monolingual, so no overt foreign material is likely to appear there. Instead, such a text may look like a multilingual text in a monolingual disguise (i. e., impact in semantics and morphosyntax). Written texts, be it conventional writing or computer-mediated writing, add possibilities that are absent in oral communication, such as choice of alphabet or playing with different alphabets. For these reasons, only data from oral communication are analysed in the article.

The data comes from (1) the literature on the Estonian impact in old settlers' varieties, of which I do not have first-hand experience and (2) the literature and data from on-going research on the present Estonian-Russian language contacts, conducted by several Estonian scholars, including myself. The latter contact situation is very much visible in everyday communication and empirical data are amply available.

The article is organised in the following way. First, the history of settlement and bilingualism of the two groups of Russian-speakers is described. This is followed by theoretical considerations, including a short discussion on metalanguage of linguistic description, the advantages of bottom-up approaches not based on formal constraints, and the description of terms and processes in CCF. After that, a short comparative analysis of CLIL is provided, based on the premises of CCF. Finally, discussion and conclusions are presented.

2. Russian speakers in Estonia: old settlers and new settlers

A comparative overview of these two groups of Russian speakers has appeared in Külmoja (2009) and Verschik (2008: 27–40) with extensive references therein. Here a brief summary will be provided.

2.1 Old settlers

The so-called old settlers (Russian *starožily*) can be classified as an autochthonous minority. Their language varieties are described in Russian with the term "old settlers' varieties" (*starožil'českie govory*). The first Russian settlers appeared on the territory of modern Estonia during the Livonian War (1558–1583). Heiter (1968a, 1970) suggests that before 16th–17th c. a mixed Votic-Russian or Votic-Ingrian-Slavic population existed in the parish of Iisaku in the east. This population gradually shifted to Russian but some substratal Finnic features were retained and contacts with Estonian speakers continued (Murnikova 1963: 122–123).

Starting from the 17th c. Russian fishermen and peasants settled in the eastern regions (Heiter 1970: 217). After the reform of 1653 in the Russian Orthodox Church, its opponents, known as Old Believers, sought refuge and settled in the territories that eventually became Estonia, Latvia and Lithuania, and some other localities, where nobody cared about their religious conviction. Old Believers inhabit mostly the western coast of the lake Peipus. Both mainstream Russian Orthodox settlers and Old Believers became bilingual because they lived amidst Estonian majority and also because contacts with other Russian varieties (and, much later, with Standard Russian) were practically non-existent (Heiter 1968a: 108). According to several researchers (Külmoja 2009: 13–14, Murnikova 1963: 122), the dialects of the old settlers are based on the Pskov regional dialect, preserving some old features and at the same time actively borrowing from Estonian (Külmoja 2009: 15).

After the Northern War (1709–1721) the territory of modern Estonia became a part of the Russian Empire. Some Russian-speaking urban dwellers (merchants, officials etc.) appeared but this did not change the ethno-demographic situation as a whole. In the aftermath of the 1917 revolution, numerous Russians left Russia and some of them chose Estonia (independent from 1918) as their new home. In 1935, Russians constituted the largest minority in Estonia (8.8% of population). The term "old settlers" is sometimes loosely applied to all pre-WWII Russian-speakers (Külmoja 2009: 13–14).

During the Soviet times the availability of Standard Russian and contacts with other Russian-speakers increased but bilingualism among this

group was maintained. Old settlers, and Old Believers in particular, have preserved their separate identity, distinct from that of newcomers.

2.2 Newcomers

In 1940, the three Baltic countries were occupied by the Soviet Union and reoccupied and annexed in 1944 after the Nazi occupation (1941–1944). The central authorities sought to "dilute" the disloyal local population, and as a means of integration with the rest of the Soviet Union, several big-scale industrial enterprises were established and workers from elsewhere, mainly from Russian-speaking areas, were recruited and encouraged to stay. Large groups of Russian-speakers are concentrated in the capital Tallinn (about a half of its population) and the north-east, forming the majority in Narva, Sillamäe, Kohtla-Järve and other cities and towns of Ida-Virumaa county.

The spirit of Soviet ethnopolitics and language policy remained internationalist and egalitarian on paper, but in reality Russian-speakers were not expected to learn local languages, while non-Russians had to study Russian. This led to the emergence of a self-sufficient, monolingual Russian-speaking environment, which, in turn, led to asymmetrical bilingualism and oppositional identity among Estonians. For instance, Raun (2001: 210) assumes that the self-reported decline in the proficiency in Russian among Estonians in the census of 1979 cannot be taken at face value: it demonstrates the general attitudes rather than linguistic reality (see more in Verschik 2008: 28).

In 1991 Estonia regained independence and the sociolinguistic situation changed dramatically. Estonian became the state language and in many professions high proficiency in Estonian became compulsory. Yet this does not mean that Russian totally disappeared from the public sphere. Public information is largely available in Russian, as well as media, theatre, books, advertisements etc. What has changed is proficiency in Estonian because of compulsory study of Estonian in Russian-medium schools, availability of various language courses and immersion education.

Unlike clearly definable groups among old settlers, the population of newcomers is highly heterogeneous as far as socioeconomic status, cultural orientation and linguistic behaviour are concerned. According to the census of 2011, about 5% of Russian-speakers declared an ethnicity other than Russian. The share of ethnic Russians in the population is

24.5% (according to 2011 Housing and Population Census, https://osp.stat.gov.lt/services-portlet/pub-edition-file?id=19698).

The intensity and frequency of contacts with Estonian-speakers vary depending on occupational, individual and regional factors. As Rannut (2005) shows, there are four different linguistic environments: (1) bilingual Tallinn; (2) the predominantly Russian-speaking north-east; (3) predominantly Estonian urban areas; (4) predominantly Estonian rural areas. According to Vihalemm & Masso (2002: 185), there is no Russian or Russian-speaking community but "a relatively diffuse assemblage of people" as far as their identity, proficiency in Estonian, future orientation etc. are concerned. A similar observation was made by Ehala & Zabrodskaja (2014) who describe five different types of identity among Russian-speakers: from total rejection of all things Estonian to a wish to become completely Estonianized and with several in-between options. The appearance of the self-applied label Estonian Russians (*èstonskie russkie* in Russian and *eestivenelased* in Estonian) reflects changes in the perception of affiliation. More details on the usage of Russian in nowadays Estonia are provided in Kostandi & Külmoja (2013). Such changes were attested in a recent research on Russian-speaking schoolchildren (Moisejenko et al. 2019).

In sum, the first group is characterised by stable bilingualism while the second one is in the state of emergent bilingualism. Technically speaking, the third generation of newcomers is the first generation of Russian-Estonian bilinguals in this group. Kostandi et al. (2020: 72) observe that the speakers are aware of differences between local Russian and Standard Russian.

Thus, contact-induced innovation and change in the local variety of Russian started in the 1990s and, probably, will continue in the absence of a wish for codification of the local standard, growing bilingualism and frequency of communication in Estonian (Kostandi et al. 2020: 76).

3. Theoretical considerations

In this section, I will turn to the following topics: problems of metalanguage in earlier research on old settler's variety and limitations for analysis caused by metalanguage of description and CCF and its terms and procedures.

Prior to this, I will briefly mention theoretical points relevant for CILC research (more details in Verschik 2019: 53–57).

First, as mentioned in the Introduction, formal, constraint-based approaches to CILC do not always produce descriptively accurate models and fail to make absolute predictions, although this is their goal. Some scholars, for instance, Thomason (2000), even claim that CILC results are not predictable. This does not mean that there is no order or regularity but rather that nothing should be dismissed as impossible. In fact, once a (contact-induced) innovation is attested, it means that it is possible (its frequency, spread and conventionalization is another matter). As shown in many studies, bilinguals may produce something that contradicts two separately taken monolingual grammar: to turn to Estonian-Russian language contacts, Zabrodskaja (2013) shows how insertion of Estonian noun affects word order in noun phrase with genitive and the word order changes from unmarked Russian N NOM + N GEN to Estonian-like N GEN + N NOM.

Second, attention should be given to multilingual individual, for s/he is not just a typical representative of a multilingual community but relevant as such because, as Croft (2000: 35) renders it, grammar is a cognitive phenomenon in the mind of a speaker and is acquired via exposure to particular speaker, particular linguistic experience etc. An innovation starts at an individual level. In the same spirit, Matras (2009: 310–311) shows that the beginning of change is in an individual's cognition and a multilingual individual is a kind of "agent of influence".

Third, a descriptive model is needed that discusses changes in lexicon and morphosyntax, using the same set of terms. The "violation" of proposed constraints and the mentioned instances in Zabrodskaja (2013) demonstrate that changes in lexicon, referred to as lexical borrowing or code-switching in traditional terms, may affect morphosyntax. Similar conclusion was reached by Auer & Muhamedova (2005) and Backus (2005). An example of a model that treats morphosyntax and lexicon holistically is the MAT and PAT replication model, developed by Matras and Sakel (2007) and CCF by Johanson (1992). There are many similarities between the models (more in Backus & Verschik 2012) but I find CCF more precise for the reasons I will discuss below in Section 3.2.

3.1 Problems of metalanguage

Sometimes the metalanguage of a model can be translated almost entirely into the metalanguage of another model. For instance, what is called code-switching and borrowing is conceptualised in CCF as global copying (see Section 3.2). However, it is not just a matter of finding parallels between different theoretical models.

Metalanguage is a way of conceptualization and mapping. If a phenomenon is not noticed and reflected upon and has neither label nor place in a model or description, it means that it does not exist for this particular research. Accordingly, noticing and conceptualization of phenomena helps to find new empirical evidence and to look for these phenomena in already collected data.

Of course, speaking of the older body of literature, it is understandable that no researcher should be expected to be ahead of their time. Additionally, in the Soviet era contacts with researchers abroad were extremely limited, and much of the literature was not available. Some of contact phenomena attested in the 1960s–1970s and labelled as lexical borrowing and loan translations in traditional terms, pose no problem and can be compared to what is attested in the current contact situation. However, the notions of code-switching, code alternation, borrowing of pragmatic particles, patterns of multilingual conversation etc. are lacking in the studies on old settlers' speech. Sometimes examples provided by the researchers allow identifying some of them, for instance Example (1) exhibits code alternation (syntactically autonomous stretch in another language). Estonian is in bold:

(1) *Kogda končila v školu xodit', togda* ***leeri läksime***.
'once I had graduated from the school, then **we went to the confirmation class'** (i.e. in church)
(modified from Heiter 1975: 102)

Due to this metalinguistic gap and subsequent lack of examples and analysis in the older literature, certain phenomena cannot be analysed. Understandably, the analysis will then focus only on what is comparable, that is, phenomena attested and described in both communities.

3.2 Code-copying framework

CCF, formulated and developed by Johanson (2992, 1993, 1999, 2002) is less known than other contact linguistic models (MLF and 4M by Myers-Scotton 1993, 2002; Triangular model by Muysken 2000, PAT and MAT replication model by Matras & Sakel 2007, Matras 2009). Although CCF is less useful for syntactic analysis, it is descriptively accurate in many instances for the following reasons:

(1) it is a bottom up, non-constraint-based model;

(2) it uses the same terms for conceptualization of changes at all levels of languages;

(3) it is applicable to multi-word items (fixed expressions, idioms, analytic verbs etc.).

Additionally, it incorporates sociolinguistic factors and acknowledges the complexity of input: the same language may be L1 for some speakers and L2, L3 etc. for others; there are more than one variety of each language, for instance, indigenous or immigrant language as L1 for first generation and another variety thereof for second generation; different versions of the majority language, i. e., as L1, as spoken by the first generation, second generation, and so on (Johanson 1993: 202).

Quite reasonably, Johanson (1999: 54–55) emphasises the need to distinguish between "young and older contact situations." For the present analysis it means that, although there might be significant similarities between the impact of Estonian on the two varieties, the old settlers' bilingualism is old and stable, while this cannot yet be claimed about the newcomers' case. The framework is formulated in structuralist terms, yet it compatible with CCL approaches, because it considers frequency, degree of habitualization and conventionalization of innovations, salience and attractiveness of certain features (more in Backus & Verschik 2012, Verschik 2019: 60–62).

3.2.1 Basic concepts of CCF

According to Johanson (1993: 198–199), contact linguistics often suffers from erroneous metaphors, such as borrowing, transfer, donor language, recipient language and others. In reality, nothing is taken away from one language or carried over and transplanted onto another. The mental procedure is copying. Copy may preserve all or just some properties of the orig-

inal but it is never the same as original: for instance, speakers of Estonian may have no idea that Estonian items or patterns have been copied into the local Russian varieties and the fact of copying does not change anything for the speakers of Estonian as L1. Thus, a copy lives its own life.

Multilingual interaction is subdivided into two large types: code-copying (CC) and code alternation (Johanson 2002). Example (1) demonstrates the latter. Here the focus would be on CC proper because no systematic data on alternation in old settlers' speech is available. The variety, or code, from which something is copied, is called the *model code*, while the variety onto which something is copied is called the *basic code*. Copying is bidirectional: if something is copied from L1 to L2, it is called *imposition* and if the direction is from L2 to L1, it is labelled *adoption*. The main focus of contact linguistics (and of the current article) is adoption, although one should keep in mind that both processes occur in a bilingual mind.

In order to understand what happens in CC, it is necessary to view the properties of a linguistic item. An item has four kinds of properties: material, semantic, combinational and frequential. If all properties are copied, then we are dealing with *global copy* (GC). In traditional terms, GC is equivalent to code-switching and borrowing (matter replication in the terms of Matras and Sakel 2007).

Examples (2) and (3) demonstrate GC of Estonian lexical items in old settler's and in newcomers' varieties respectively. For the sake of simplicity, the examples are labelled as "Old" and "New":

(2) Old

trep*-k-a*
stair-DER-NOM
'stairs'

Estonian *trepp* 'stairs'
(modified from Mürkhein 1973: 3)

(3) New

v	*akademičesk-om*	***puhkus****-e*
in	academic-LOC	leave-LOC

'on academic leave'

Estonian *puhkus* 'leave, vacation'
(Zabrodskaja 2013: 89)

Also multi-word items can be GCs. In this model, the degree of morphosyntactic integration/adaptation is irrelevant because it actually does not tell anything about whether an item is conventionalized or not (Zabrodskaja and Verchik 2014 show that Estonian nouns do not always receive Russian inflections even if they can be interpreted in the term of Russian noun classes). So GCs can be so-called bare forms (stems without added morphological markers), Estonian stems with Russian derivational suffixes, morphosyntactically adopted items and items that preserve model code morphology, as in Example (4) where the Estonian stem is copied together with the plural marker:

(4) Old

Ran'še	*sunduk-i*	***kirstu-d***	*bu-l-y*
Earlier	chest-PL	chest-PL	be-PST-PL

'In olden times there were chests, chests'

Estonian *kirst* 'chest'

(modified from Heiter 1975: 101)

If only some properties are copied, i.e., meaning, argument structure, word order, it is called *selective copy* (SC). In other traditions and models there is a wide range of terms: loan translation, grammatical interference, convergence, etc. Matras and Sakel (2007) label such instances as pattern replication. SC may occur in phonology, semantics, morphosyntax. For instance, in some old settlers' varieties the combination of Russian palatalized consonant and a vowel is substituted with the combination of non-palatalized consonant and front vowel: Russian *zjat'* [z'at'] 'son-in-law' is realised as [zät'], where [ä] is very close or identical to the Estonian vowel (Heiter 1968a: 107).

SC can include cases in which only the meaning of one single word is copied, as with Estonian *krunt* 'plot (of land)' > local Russian *grunt* with the same meaning (attested in old settlers' data, see Burdakova & Burdakova 2000: 46, and frequently heard in modern local Russian), cf. Standard Russian *grunt* 'a type of soil'. SC can also mean the copying of meaning and collocation (also in idioms). The latter is sometimes characterised as semantic combinational copy. Examples (5) and (6) show SCs of Estonian analytical verbs:

(5) Old

lit' naverx 'to pour over'

Estonian *peale valama* 'to pour over' (literally, 'onto/over/on top to pour')

Standard Russian *na-livat'* (prefixed verb, literally, 'on-pour')

(modified from Heiter 1977: 203)

(6) New

zvonit' nazad 'to call back'

Estonian *tagasi helistama* 'to call back' (literally, 'back to call')

Standard Russian *pere-zvonit'* (prefixed verb, literally, 'anew-call')

(discussion in Verschik 2008: 145–146, also attested in Zabrodskaja (2006: 741)

In (5) and (6) both the combination and the complex meaning are from Estonian and these instances may be unintelligible to monolingual Russian-speakers. SC includes a wider range of instances, for instance, copying of word order and of argument structure. These cases will be analysed in the next section.

Copying of frequential properties may be not so easy to detect because a large amount of data from both pre-contact and contact situations is needed for that. Johanson (2002: 292) suggests that selective frequential copying is an important type among SCs (more in Backus & Verschik 2012). Heine and Kuteva (2005: 44–75) talk about a minor use pattern becoming a major use pattern. Suppose a pattern is possible in the basic code but it is used in specific grammatical or pragmatic context, while in the model code the same pattern is obligatory and stylistically unmarked. Zabrodskaja (2013: 92) shows how the pragmatically marked pattern N GEN + N NOM in Russian is becoming more frequent with Russian-speaking students in Estonian universities, who spend a lot of time speaking and hearing Estonian. The named word order is obligatory in Estonian. This instance will be discussed in Section 4.

Finally, there is an intermediate type between GC and SC, that of *mixed copying* (MC). In the literature, this type is sometimes referred to as loanblends (Haugen 1950: 213–215) or semi-calques (*polukal'ka* in Russian, see Kostandi 2009: 73 and Külmoja 2009: 22). A multi-word item, com-

pound or analytical form may be copied in a way where one or some of the components is copied globally and others selectively. Consider Example (7):

(7a) Old

p-il-i	***kummel-i***	*čaj*
drink-PST-PL	camomile-GEN	tea:ACC

'(we/they/you) drank **camomile** tee'

(modified from Heiter 1975: 102)

(7b) Standard Russian

romašk-ov-yj	*čaj*
camomile-DER-NOM	tea

'camomile tea'

(7c) Estonian

kummel-i-tee
camomile-GEN-tea

'camomile tea'

In Estonian, *kummelitee* is a compound noun N GEN + N NOM and it would be unreasonable to analyse the components separately. Haugen (1950) does not analyse the category of loanblends in detail, nor do Kostandi (2009) and Külmoja (2009) with the notion of semi-calques. While the metalanguage of MAT and PAT model proposed by Matras and Sakel (2007) is similar to that of CCF, there is no type of replication resembling MC (see more in Backus and Verschik 2012). This is an instance of how the choice of metalanguage affects the description and analysis.

Modern Estonian-Russian language contact data contain a lot of instances of MCs in compound nouns and analytic verbs (see Verschik 2016 on typology of MCs). In the literature on the old settlers' Russian the whole concept (formulated in whatever terms) is absent, and a researcher can only find isolated examples that fit into the category of MCs and describe them as belonging to this type. In general, the more items a multi-word item contains, the greater the possibilities for variations are: the complex item in question may yield GC, SC and MC. Still, it will be shown below that

sometimes MC occurs where SC would be problematic, so variation is not always an option.

3.2.2 Factors facilitating copying

Let us now turn to the life cycle of a copy. A copy may occur just once and not "catch on" but if it is successful, it may become habitualized and subsequently, conventionalized. Thus, Johanson (2008: 65) proposes a continuum between momentary copying, habitualization and conventionalization. A copy may also become obsolete, or de-conventionalised (Johanson 2008: 66). Importantly, the degree of adaptation is not a criterion of conventionalization (Johanson 2002: 302.) This is very much in accordance with usage-based approaches (Backus 2012) where an item or pattern that is frequent in input and output becomes entrenched in an individual's cognition and conventionalized at the community level. Thus, the much-debated issue of distinguishing between one word code-switch and lexical borrowing becomes a non-issue: it is only about the degree of conventionalization in a given community and not about formal criteria like the degree of phonetic and morphological adjustment.

It is necessary to consider what factors enhance copying. In addition to macro and micro-sociolinguistic factors, such as language status, prestige, attitudes, ideologies and so on, there are cognitive reasons. Johanson (2002) speaks about salience and attractiveness. Salience is a complex notion, used in cognitive linguistics, sociolinguistics, language acquisition studies, and may prove difficult to define. Salience may be operationalized in the terms of Johanson (2002) as cognitive prominence, that is, an item or a pattern is noticeable. Attractiveness is understood as empirically manifested susceptibility to copying (Johanson 2002: 309).

Other factors, according to Johanson (2002: 293–294, 306) are similarity and transparency. There is ample empirical evidence that cross-linguistic similarity facilitates language contacts (Clyne 2003: 111). It has to be clarified that we deal with perceived similarity here, i.e., what is similar for language users and not linguists. Transparency is manifested in analytic forms, compounds and transparency (compounds, analytic forms) contribute to copiability as well (more in Verschik 2019).

A question about what facilitates a particular type of copying (GC, SC or MC) has to be posed as well. As established by Backus (2001) and

developed in Backus & Verschik (2012), GC is facilitated by particular meaning, while SC is facilitated by frequency (grammatical patterns and functions with abstract meaning). It explains why nouns usually are primary candidates for GCs: their function is to name and specify things and phenomena, so their meaning is specific by definition.

In addition to semantic specificity, the following types of meaning may facilitate GC: expressivity and prominence on discourse level (Backus and Verschik 2012). For instance, words referring to emotions or Estonian discourse markers like *selge* 'clear', *ei* 'no' appear as GCs (Verschik 2008: 102, Zabrodskaja 2006: 743–744).

Empirically, SC (semantic copying) of verbs is more frequent than GC, although not entirely excluded (Verschik 2008: 104). Quite logically, GC renders a more specific meaning (consider names of foods that are culture and place specific, for instance, Estonian *kodujuust* 'a specific kind of cottage cheese' in newcomers' Russian), while semantic SC leads to broadening of the meaning like Estonian *panema* 'to put, to place, to render, to add etc.' > local Russian *postavit'* with the same range of meaning as opposed to 'to put (vertically)' in Standard Russian.

Semantic combinational copying appears in various verbal constructions where Estonian argument structure is copied, for instance, the choice of separative government instead of static, as in (8a), that is, preposition *ot* 'from' + GEN, based on Estonian model with ablative case with separative meaning, instead of conventional Russian *u* 'at' + GEN:

(8a) Old

ot	*drug-a*	*vzja-l-i*	*den'gi*
from	friend-GEN	take-PST-PL	money:ACC

'we/you/they took money from the friend'

(modified from Nemčenko 1974: 129)

(8b) monolingual Russian

u	*drug-a*	*vzja-l-i*	*den'gi*
at	friend-GEN	take-PST-PL	money:ACC

literally 'we/you/they took money that the friend'

(8c) Estonian

sõbra-lt	*võt-si-d*	*raha*
friend-ABL	take-PST-PL	money:GEN

'you (SG)/they took money from the friend'

Fixed expressions, idioms, compound nouns, analytic verbs may produce GCs, SCs and MCs. What type of copying is chosen may depend on the genre: although data from written text will not be considered, it has to be mentioned that written texts in Russian are constructed as monolingual and would not contain overt other language items, so it would be likely for SCs to appear rather than for GCs (see more in Adamson 2009, Palikova 2009, Ščadneva 2009).

Some cases cannot be classified as belonging to a particular type, for instance, if items in two varieties have some material similarity like common internationalisms. Consider Estonian *isikukood* 'personal number', literally, 'person's code' (something like social security number in USA) and its rendition as *isikukod* in newcomers' Russian, where the common internationalism is its Russian version *kod* 'code' (with short vowel) or another possible rendition that preserves Estonian vowel quantity (Verschik 2016: 126). The former rendition may be classified as MC and the latter as GC.

Thus, CCF allows for a holistic flexible approach to all contact phenomena and views lexicon and morphosyntax within the same terminological framework. Albeit with some limitations that are due to metalanguage problems in the older literature, it is possible to provide a comparative analysis within CCF.

4. Contact phenomena

4.1 Global copying

4.1.1 Isolated lexical items

As expected, content words, especially nouns, are primary candidates for global copying. Researchers of the old settlers' Russian varieties provide a wide range of examples of what is usually called lexical borrowings and labelled as GC in CCF (Burdakova & Burdakova 2000, Heiter 1975, Mürkhein 1973, Palikova 2009). The same is true of the newcomers'

varieties (Külmoja 2009, Ščadneva 2009, Zabrodskaja 2013). Common internationalisms in Estonian form are included as well; they appear in the speech of both groups.

There are earlier attempts to classify borrowings into various semantic domains: Mürkhein (1973: 3–4) describes Estonian lexical borrowings (that is, GCs) in the Russian variety of Mehikoorma and subdivides them as follows: agriculture, foods and drinks, tools and household items, fishing, social relations, folk culture, nicknames derived from Estonian common nouns and, finally, "words of various meanings" that include a wide range of lexical items and a number of common internationalisms like *klima* 'climate' < Estonian *kliima*, cf. Russian *klimat, bus* 'bus' < Estonian *buss*, cf. Russian *avtobus*, etc. Whatever classification one may come up with, all these GCs may be considered as semantically specific: items characteristic of local agriculture, foods, customs, Estonian folk culture etc.

No surprise that in the newcomers' speech one would not find GCs of lexical items from fishing and agriculture domains because these are irrelevant for modern urban dwellers. One would rather attest terms from the domains of university and higher education, banking, advertising. Zabrodskaja (2013) talks explicitly of semantic specificity and provides a list of GGs from the sphere of higher education, and this is logical because she investigated language use among Russian-speaking university students.

Names of foods and drinks may refer to items of traditional Estonian cuisine like *mulgikapsas* 'a kind of traditional cabbage stew' but also to everyday foods. In the latter case, it is necessary to pay attention to the context: in Example (9) the speaker is at the market place and uses Estonian *juust* 'cheese' referring to a merchandise but, probably, in another context, copying will not occur, cf. a general statement like 'I like cheese' (Verschik 2008: 99).

(9) *V tot raz my étot* ***juust*** *tebe pokupali?*
'Did we buy this **cheese** for you last time?'

The difference between semantic domains that are sources of global copying confirms the idea that semantic specificity is relative and gradient (Backus and Verschik 2012): some items are more specific than others, and

it depends on an individual's way of life, habits, occupation, input, communicative situation, etc.

Also common internationalisms have been attested that may produce GCs or something that may be classified as intermediate between GCs and SCs. Consider *inventur* 'inventory check' < *inventuur* in the old settlers' data (Mürkhein 1973: 4), cf. Russian *inventarizacija* 'inventory check' or more frequent version encountered in the newcomers' speech *iventura*, copied from the same source. Külmoja (2009: 12) provides similar examples as well.

4.1.2 Compound nouns

All types of copies, GCs, SCs and MCs have been attested for compound nouns. Global copying of compound nouns occurs due to semantic specificity, like in other cases of global copying. An additional factor that facilitates (all degrees of) copying of compound nouns is their analyticity and high productivity and frequency in Estonian (see discussion and references in Zabrodskaja 2013 and Verschik 2008: 119). Many term-like items in Estonian are compound nouns. The literature on the old settlers' varieties does not discuss compound nouns as a separate type of borrowing (that is, GCs in our terms), so such examples have to be especially looked for. For this reason, it is impossible to judge how productive global copying of compound nouns is in the old setters' varieties. Consider Examples (10) and (11).

(10) Old
karjama 'pasture' < Estonian ***karjamaa***
karja-maa
herd:GEN-land
cf. Russian *pastbiščе* 'pasture'
(modified from Mürkhein 1973: 3)

(12) New
ainepunkt 'credit point' (in university studies) < ***ainepunkt***
aine-punkt
subject:GEN-point
cf. Russian *kredit* 'credit point'
(modified from Zabrodskaja 2013: 86).

GCs of Estonian compound nouns do not "behave" differently from other globally copied content words. However, selective copying of compound nouns is more telling as far as semantical, combinational and frequential factors are concerned (Section 4.2.3).

4.1.3 Discourse pragmatic words

Discourse pragmatic words, or pragmatic particles, are a broad group of lexical items (modal and focus words, interjections, conjunctions) which do not change the meaning of an utterance but modify it and demonstrate speakers' attitudes or show connections between utterances. Matras (1998) suggested the term "utterance modifiers" that demonstrates the difference between the class of content words and this one. Borrowing (copying) of discourse pragmatic words has been extensively dealt with in literature (see an early paper by Salmons 1990 and references in Matras 2009: 137). Clearly, it happens not because of a conceptual gap, that is, the lack of a term in L1, because pragmatic particles do not refer to concepts, qualities or actions, as content words do. Therefore, semantic specificity is not helpful in explaining the reasons for the copying of discourse pragmatic words.

Matras (1998, 2009: 137) suggests that discourse pragmatic particles "are responsible for monitoring and directing the hearer's processing of propositional content" and claims that having one set of particles lessens the cognitive burden. Pragmatic particles may come from the sociolinguistically dominant (i.e. majority, official) language, but not necessarily: their source can also be a pragmatically dominant language, that is, the language in which "monitoring, directing and processing of propositional content" is easiest. Which language is pragmatically dominant may change during one's life: it may be L1 but also L2.

Since contact linguists started paying attention to pragmatics in language contacts relatively recently, one would not find any Estonian discourse particles in the old settlers' speech descriptions. There is only one exception: global copying of Estonian emphatic clitic *-ki/-gi* that is semi-autonomous:

(13) Old

Jona	*v*	*prošl-om*	*god-i*	*umer-l-a-**gi***
She	in	previous-LOC	year-LOC	die-PST-FEM-EMPH

'**And so** she died last year'

(modified from Heiter 1970: 224)

The absence of discourse pragmatic words in the earlier literature does not mean, however, that copying of this category of items did not happen. As for the newcomers' variety, Zabrodskaja (2006: 744) provides a list of Estonian discourse pragmatic particles in the speech of Russian-speaking students.: These particles belong to different categories: conversation formulas *tere* 'hello', evaluatives *selge* 'clear', *kahjuks* 'unfortunately', emphatic particle *issand jumal* 'oh my god!', *kindel see* 'for sure' etc.

I did not find any conjunctions in either set of data (but see possible exceptions in Verschik 2008: 154–155). Interestingly, in some contact situations, both conjunctions and other particles are copied and in some it is either one or the other type. The reasons for this are not yet known.

4.2 Selective copying

Selective copying appears in many subsystems of language from phonology to morphosyntax to discourse patterns. It may be copying of lexical meaning of a particular lexical item (such as *grunt* 'a plot of land' in Section 3.2) or of a complex meaning in a fixed expression; it also may be more abstract, such as the copying of grammatical meaning or function (Russian genitive as an equivalent to Estonian partitive, see below Sections 4.2.2. and 4.2.4). Also combinational copying may appear both in unique idioms and in a certain class of items, for example, choice of a directional or separative case instead of a static case in verbs with the meaning 'to lose', 'to leave (something somewhere)', 'to buy', 'to ask', 'to find' (see Example (8a) and Section 4.2.3).

4.2.1 Phonology

As mentioned in Section 3.2., in some old settlers' varieties (Iisaku) the combination of a palatalized consonant and a vowel is substituted with a non-palatalized consonant plus front vowel (Heiter 1968a: 107). In the same variety a tendency of de-palatalization of Russian consonants is

attested (Heiter 1968b: 173). While Russian differentiates between palatal and non-palatal consonants, in Estonian this differentiation is much weaker (there are only some palatal consonant phonemes). According to Heiter (1968b), the reason is isolation from Standard Russian and speakers of other Russian dialects and bilingualism.

In another study, the merger of /i/ with /ɨ/ (ы in Russian Cyrillic orthography, often transliterated with Latin *y*) is mentioned. It is ascribed to an alleged Finnic substratum: speakers of Votic, Ingrian and Estonian perceived the Russian central vowel /ɨ/ as closer to /i/ than to the Estonian or Votic mid-back unrounded vowel /ɤ/ (Estonian orthographical *õ*) and for that reason started using *i* (Heiter 1970: 221). If this is true, this is a case of imposition in language shift but the substratal feature has been maintained because of proficiency in and constant usage of Estonian.

In the newcomers' varieties nothing of the kind has been attested; instead, there is a shift of stress to the first syllable in common internationalisms. Zabrodskaja (2006: 740) mentions items like *konspekt* [kónspekt] 'notes, digest' and *terminal* [términal] 'terminal (in the airport etc.)' instead of Russian [konspékt] and [terminál] respectively. To this, *loto* [lóto] 'lottery' as opposed to Russian [lotó] may be added. In general, copying of the Estonian form of common internationalisms means that similarity is the main factor here. Other than that group, no shift of stress in Russian lexical items occurs.

One can assume that Estonian impact on phonology is more advanced in the old settlers' varieties because Estonian-like realisation in the mentioned cases occurs not only in GCs of Estonian origin but in Russian lexical items as well.

4.2.2 Semantic copying

Semantic copying is sometimes referred to as semantic extension or loan-translation. It is empirically true that global copying produces a more specific meaning even if there is an equivalent in the basic code (recall *juust* 'cheese' in Example (9)), while as the result of semantic copying the meaning changes (like in common internationalism and established borrowings, cf. *grunt* 'plot of land') or is extended. Consider the already mentioned *postavit'* in the sense of 'to pour over' (Section 3.2).

This is typical of many verbs with a wide range of meanings like 'to put', 'to get', 'to hold' etc. (some examples in Heiter 1975, 1977). Semantic copying of the verbs occurs in both old settlers' and newcomers' Russian. Consider (14a) with the verb Russian *deržat'* modelled on Estonian *hoidma* 'to hold', 'to take care of, to look after', 'to cherish', 'to preserve', cf. Russian *deržat'* 'to hold', 'to keep' (and other meanings not covered by Estonian *hoidma*).

(14a) Old

Mladšaja	*sestra*	*rebjonk-a*	*deržа-l-a*	*let-om*
Younger	sister	child-ACC	hold-PST-FEM	summer-INSTR

'The younger sister took care of the child/baby-sat in summer'
(modified from Heiter 1975: 103)

(14b) Standard Russian

Mladšaja sestra	*smotre-l-a*	*za*	*rebjonk-om*	*let-om*
Younger sister	watch-PST-FEM	behind	child-INSTR	summer-INSTR

'The younger sister took care of the child/baby-sat in summer'

(14c) Estonian

Noore-m	*õde*	*hoid-i-s*	*las-t*	*suve-l*
young-COMP	sister	hold-PST-3SG	child-PART	summer-ADE

'The younger sister took care of the child/baby-sat in summer'

An example of semantic copying in the newcomers' variety is the verb *polučit'* with the meaning 'to get/take (back)', copied from the meaning of Estonian *saama* 'to get/take (back'), 'to receive, to obtain', while in Standard Russian the meaning is 'to receive' (Examples 15a, 15b, 15c modified from Zabrodskaja 2006: 740):

(15a) New

Ona xotela svoju tetrad' polučit'
'she wanted to get back her notebook'

(15b) Standard Russian

Ona xotela vzjat'/zabrat' svoju tetrad'

'she wanted to get back/to take her notebook'

(15c) Estonian

Ta tahtis saada oma vihikut

'she wanted to get (back) her notebook'

4.2.3 Semantic combinational copying

This category includes a wide range of cases, starting from what is often called calquing or loan-translation and up to changes in word order, argument structure, etc. Backus and Dorleijn (2009) analyse instances that are often lumped together under the loan-translation label and suggest that there are loan-translations in the proper sense and structural changes. In the former case, the combination of items and the complex meaning is new but no innovations in structure occur, while in the latter case innovations in morphosyntax emerge. Structural change sounds "ungrammatical" to monolingual speakers. I believe that this subdivision is reasonable and helpful.

Consider SCs of idioms like *s belogo lista* 'anew, from a clean slate', literally, 'from a white page' < Estonian *valgest lehest* with the same idiomatic and literal meaning (cf. Standard Russian *s čistogo lista*, literally 'from a clean page') (Külmoja 2009: 21, New). Idioms and fixed expressions have figurative meaning and are unique. On the other hand, semantic combinational copying occurs not only in unique multi-word items with a specific meaning but also in certain classes of items like Estonian analytic verbs. Although some of these verbs are idiomatic or nearly idiomatic, others are not, and we deal with copying of a pattern as a whole.

I believe there is a continuum because some instances do not belong to either category and are between the two extreme points.

In the literature on the old settlers' varieties, I could not find SCs of Estonian idioms like *s belogo lista* 'from a clean slate' discussed above. It does not mean that such SCs do not exist. On the other hand, there are SCs of some idiomatic expressions that may also be classified under the heading of analytic verbs and will be considered below.

4.2.3.1 Compound nouns

There is ample evidence of selective copying of Estonian compound nouns in both varieties. Usually, copied Estonian compound nouns have the structure N GEN + N NOM or N NOM + N NOM (see some examples in Külmoja 2009: 23 and overview in Verschik 2008: 119–135, Zabrodskaja 2013). In the old settlers' varieties there are some examples of copying of Adj + N compound nouns:

(16a) Old
stara mama
old mother
'grandmother'
(Heiter 1977: 202)

(16b) Standard Russian
babuška
'grandmother'

(16c) Estonian
vana-ema
old-mother
'grandmother'

Mürkhein (1968a: 240) observes that many of borrowed (i.e., selectively copied) compounds describe family relations, the reason being that Estonian labels are more concrete and precise: Russian has *vnuki* 'grandchildren' but this does not indicate whether these are the daughter's or the son's children. Estonian has general *lapselaps* 'grandchild', literally, 'child's child' and *tütrepoeg* 'the daughter's son', *tütretütar* 'the daughter's daughter', *pojapoeg* 'the son's son', *pojatütar* 'the son's daughter'. While Russian has possessive adjectives that are derived with the suffixes *-in-*, *-ov-*, i.e. *bratov* 'belonging to the brother' (< *brat* 'brother'), the use of such adjectives has been on decline and just somewhat preserved in folk speech (Mürkhein 1968a: 241). Possessive adjective also helps to uphold the same order of stems as in Estonian (modifier + head). In the variety of Mehikoorma (and also of Iisaku, see Heiter 1970) examples like (17a) are conventionalised.

They sound strange in Standard Russian. (17b) is theoretically possible but only in a specific context (for instance, stressing that it is the son's son and not the daughter's).

(17a) Old

syn-ov-n-ïj	*syn*
Son-DER-DER-NOM	son

the son's son'

(modified from Heiter 1970: 219)

(17b) Standard Russian (?)

syn	*syn-a*
son	son-GEN

'the son's son'

(17c) Estonian

poja-poeg
son:GEN-son

'the son's son'

SC of compound nouns in the newcomers' varieties has been discussed in detail (see Verschik 2008: 118–135, Zabrodskaja 2013: 86–87) and the tendency is very much the same, only that copies of terms family relations have not been attested. Copying mostly produces adjective phrases with either possessive or relative adjectives (derived from a noun) or, less often, noun phrases such as *majandusdirektor* 'manager' (literally, 'management director') > *direktor xozjaistv-a* (director management-GEN). Various scholars observe that transparency of Estonian compound nouns may be a factor (Palikova 2009, Zabrodskaja 2013).

In some instances, selectively copied compound nouns refer to things and phenomena that emerged after the restoration of the independence in 1991, and Russian-speakers may be unaware of the existing equivalents in Russia. For instance, mobile phones appeared in the 1990s and only then did the difference between them and landline phones become relevant. Example (18a) is discussed in details in Verschik (2008: 129):

(18a) New
na-stol'-n-yj *telefon*
PREF-table-DER-NOM telephone
'landline', literally, 'table phone'

(18b) Standard Russian
statsionar-n-yj *telefon*
stationary-DER-NOM telephone
'landline', literally, 'stable phone'

(18c) Estonian
laua-telefon
table:GEN-telephone
'landline', literally, 'table phone'

SCs of compound nouns mostly are realised adjective phrases, like in (17a) and (18a). These are not "ungrammatical" for monolingual Russian-speakers but either have a different meaning (*stara mama* would be understood literally as 'old mother') or unconventional (*nastol'naja lampa* 'table lamp' is possible but *nastol'nyj telefon* sounds strange).

4.2.3.2 Analytic verbs

Estonian analytic verbs are classified into particle verbs – the modifier is an adverb or a particle (*ära minema* 'to go away', literally 'away go') – and phrasal verbs, in which the modifier is a noun or an adjective (*pähe õppima* 'to learn by heart', literally, 'to learn into the head'; *haigeks jääma* 'to fall ill', literally, 'to remain ill'). There are other constructions that may be classified as analytic verbs (see Erelt 2003: 101–102) but these are irrelevant for the present discussion.

Some analytic verbs are idiomatic and some are not, and the borderline is not always clear. According to Muischnek (2006), analytic verbs can be subdivided into idioms and collocations. Idioms can be opaque or transparent, and collocations can be either on the borderline (semi-idiomatic) or non-idiomatic. There are no unambiguous distinctions between the groups but rather a continuum between idiomatic and non-idiomatic analytic verbs.

Heiter (1977: 202-203) provides a number of selective copies of Estonian analytic verbs that contain both non-idiomatic and idiomatic examples. She does not specify them as a separate group but views them together with other cases of loan-translation. Consider (18) transparent, non-idiomatic:

(18) Old
gonjat' krugom 'to spin', literally, 'to drive around'
cf. Standard Russian *krutit'* 'to spin'
Estonian *ringi ajama* 'to spin' (around + drive)

Although this collocation is not conventional in monolingual Russian, it is not impossible (verb + adverb) and does not involve any structural changes.

Example (19a) is of an idiomatic analytic verb whose meaning may be considered as transparent or at least not entirely opaque because in many languages metaphors with 'head' refer to reason, thinking and memory.

(19a) Old

vy-učі-t'	*v*	*bašk-u*
PREF-learn-INF	into	head-ACC

'to learn by heart', literally, 'to learn into the head'
(modified from Heiter 1977: 203)

(19b) Standard Russian

vy-učі-t'	*naizust'*
PREF-learn-INF	out of lips

'to learn by heart', literally, 'to learn out of the lips'.

(19c) Estonian

pähe	*õppi-ma*
head:ILL	learn-INF

'to learn by heart', literally, 'to learn into the head'.

Thus, Russian has a different idiom that is not transparent; the component *naizust'* is unique to this and some related idioms (*znat' naizust'* 'to know by heart' etc.) and is derived from archaic *usta* 'lips'.

In the newcomers' Russian, SC of exactly the same verb was attested (Verschik 2008: 145). Although there are no "violations" of Russian monolingual grammar here, the combination of items in Examples (19a) and (19b) is highly unusual and the meaning is somewhat unclear. This is an instance of an intermediate position between what Backus and Dorleijn (2009) call loan translation and structural change.

Instances of various SCs of analytic verbs in the newcomers' Russian, both idiomatic and not, are discussed by Zabrodskaja (2006: 741). Also recall Example (6) *pozvonit' nazad* 'to call back' in Section 3.2.1. In sum, the picture with selective coping of analytic verbs is similar in both varieties.

4.2.4 Combinational copying

In these instances of selective copying combinational properties are copied. Differently from semantic copies or semantic combinational copies (Sections 4.2.2 and 4.2.3), here abstract features like argument structure and word order are copied and no new meaning or complex meaning of a multi-word item emerges. According to Backus and Dorleijn (2009), combinational copying considered here may be classified under the heading of structural change. I will consider changes in argument structures of certain verbs, word order in NP with genitive and gerundive (or converb construction).

4.2.4.1 Argument structure in VP

In the literature on the old settlers' varieties, such instances are not considered systematically but rather treated like loan-translations or different choice of prepositions and cases (Nemčenko 1974: 128). From studying the examples, it becomes clear that there are two types of VP onto which the Estonian model is copied. The first one is a small group of verbs that require dative in Russian and partitive (partial object case) in Estonian, i.e. verbs meaning 'to envy', 'to betray', 'to threaten', 'to believe', 'to help'. Here the Russian genitive that can in certain contexts convey partial meaning is used as an equivalent of Estonian partitive (see also 4.2.4.). Consider (20a):

(20a) Old

Ne	*verj-u*	*ja*	*vas*
NEG	believe-1SG	I	you: GEN.PL

'I don't believe you'

(modified from Nemčenko 1974: 128)

(20b) Standard Russian

Ne	*verj-u*	*ja*	*vam*
NEG	believe-1SG	I	you: DAT.PL

'I don't believe you' (literally, 'to you')

(20c) Estonian

Ma	*ei*	*usu*	*te-i-d*
I	NEG	believe	you-PL-PART

'I don't believe you'

I have not found such examples of copying in the newcomers' variety.

The second group of VP whose argument structure is copied are verbs that require either a separative or a directional case in Estonian. Estonian has a developed system of local cases that is subdivided into internal (illative, inessive, elative) and external (allative, adessive, ablative). In each group there is a directional case (where to?), static case (where?) and separative case (where from?). Illative and allative are directional, inessive and adessive are static, and elative and ablative are separative

cases. Verbs with the meaning 'to buy', 'to find', 'to obtain', 'to procure', 'to take', 'to ask' etc. govern separative cases: one finds a key from the table or purchases something from the store. Verbs with the meaning 'to lose', 'to leave (something)', etc. govern directional cases: one leaves a key onto the table or into the drawer. In contrast, Russian does not have a developed system of local cases, and spatial relations are expressed with various prepositions with genitive, accusative or locative, and various adverbs that may be directional, static or separative (*domoj* 'home', *doma* 'at home', *iz doma* 'from home'). In the mentioned instances, Russian verbal government is static (prepositions + locative or genitive) (more in Verschik 2006).

Recall example (8a) that demonstrates separative government (*ot druga* 'from the friend') instead of static (*u druga* 'at the friend') in the old settlers' variety. Such instances appear in newcomers' varieties as well (Külmoja 2009: 24). Example (21a) demonstrates directional government of the Estonian verb *jätma* 'to leave' + inessive/allative and instead of the prepositional phrase *v* 'in' + locative directional phrase *v* 'into' + accusative is chosen (Verschik 2006: 395):

(21a) New

i	*rebjonk-a*	*ostavi-l-i*	*v*	*storon-u*
and	child-ACC	leave-PST-PL	in(to)	side-ACC

'and the child was disregarded' (literally, 'left into the side')

(21b) Standard Russian

i	*rebjonk-a*	*ostavi-l-i*	*v*	*storon-e*
and	child-ACC	leave-PST-PL	in	side-LOC

'and the child was disregarded' (literally, 'left in the side')

(21c) Estonian

ja	*laps*	*jäe-t-i*	*kõrva-le*
and	child: NOM	leave-IMPS-PST	side-ALL

'and the child was disregarded' (literally, 'left into the side')

One cannot say that this change in government appears in all such verbs and has become obligatory. All instances of copying of this type of

verbs introduce structural change; utterances like (8a) and (21a) would be considered as ungrammatical in monolingual Russian.

4.2.4.2 Word order in genitive NP

Zabrodskaja (2013) has investigated so-called mixed, or bilingual, constructions, among them genitive NPs where globally copied Estonian head or modifier causes Estonian word order (genitive preceding nominative). Among these constructions, she also mentions seemingly monolingual Russian constructions that follow Estonian word order (Zabrodskaja 2013: 95–96). In colloquial Russian nouns in genitive with the meaning of possessor may sometimes precede nominative; this is pragmatically marked word order where the most important element is brought to the first position (Zemskaja 1987: 150–151). Although no quantitative research exists, one might assume that the frequent usage of Estonian would lead to a more frequent usage of the Estonian-like word order (in the terms of Heine and Kuteva 2005, this is a case when a minor use pattern that is used in a limited number of contexts may become a major use pattern under the impact of another language). Consider Example (22a):

(22a) New

Ja	*ne*	*xoč-u*	*sluša-t'*	*glup-oj*	*Svet-y*	*fantazi-i*
I	NEG	want-1SG	hear-INF	foolish-GEN	Sveta-GEN	fantasy-PL

'I don't want to listen to fantasies of foolish Sveta'

(modified from Zabrodskaja 2013: 95)

(22b) Standard Russian

Ja	*ne*	*xoč-u*	*sluša-t'*	*fantazi-i*	*glup-oj*	*Svet-y*
I	NEG	want-1SG	hear-INF	fantasy-PL	foolish-GEN	Sveta-GEN

'I don't want to listen to fantasies of foolish Sveta'

(22c) Estonian

Ma	*ei*	*taha*	*kuula-ta*	*rumal-a*	*Sveta*	*fantaasia-i-d*
I	NEG	want	listen-INF	stupid-GEN	Sveta:GEN	fantasy-PL-PART

'I don't want to listen to fantasies of foolish Sveta'

Leisiö (2000: 320) has investigated the word order in genitive NP in the speech of indigenous Russian-speakers of Finland. All speakers are bilingual in Finnish and Russian. She found that in possessive constructions the inverse word order is used more often than in colloquial modern Russian. Her results are relevant for the current case because Finnish and Estonian are closely related and word order in genitive NP is identical in the two languages. So far the evidence is scarce in the newcomers' variety and, surprisingly, no instances like (22a) are attested in the literature on the old settler's Russian.

4.2.4.3 Gerundive

The gerundive is known under different labels such as converb, adverbial participle etc. In Estonian grammars it is called the *des*-converb or *des*-converb construction and in Russian grammars it is referred to as *deepričastie*. In modern Russian, the gerundive cannot appear as absolute construction (although it was possible in Eastern Slavic at earlier stages of development, see Weiss 1995: 262). Also the subject for both actions has to be the same. In Estonian, however, absolute construction is possible. There is only one instance of Estonian-like gerundive, attested in the literature: Heiter (1977: 203) characterises it as a word for word rendition of the whole sentence structure:

(23a) Old

Solnce	*vstavaj-a,*	*ide-š'*	*na*	*rabot-u*
sun:NOM	rise-CONV	go-2SG	on	work-ACC

'when the sun rises, you go to work' (lit. 'sun rising, you go to work') (modified from Heiter 1977: 203).

(23b) Standard Russian

Kogda	*solnce*	*vstaj-ot,*	*ide-š'*	*na*	*rabot-u*
when	sun: NOM	rise-3SG	go-2SG	on	work-ACC

'when the sun rises, you go to work'

(23c) Estonian

Päikes-e	*tõus-tes*	*lähe-d*	*töö-le*
sun-GEN	rise-CONV	go-2SG	work-ALL

'when the sun rises, you go to work' (literally, 'sun rising, you go to work')

Example (23a) is ungrammatical in modern Russian because of the absolute construction. Interestingly, while in Estonian the head in the gerundive construction is in the genitive, it is in nominative in (23a). This is nothing like Old-Russian archaic absolute constructions with dative (see more in Weiss 1995: 264). As this example is the only one and nothing similar has been attested in the newcomers' Russian, it is impossible to say more about the matter.

4.2.4 Copying of functions

Copying of functions or, more precisely, the range of functions can be regarded as a copying of meaning in a rather abstract sense when one deals with changes in functions of grammatical cases, tenses, aspect markers, etc. Here I will consider two instances: the use of the genitive in partitive function and the blurring of aspectual opposition.

The Russian genitive may express partitive meaning if the object is not countable (substances etc.). The genitive is also used for subject in negative existential sentences like *u nego net* ***druzej*** (genitive plural) 'he does not have friends', literally, 'at him no friends' but not in positive existential sentences, at least not in common modern Russian (**u nego jest' druzej* 'he has friends'). In Estonian, partial subject is rather regular: *tal on sõpru* (partitive plural) 'he has friends' is the only possible way to render it. Partitive vs. nominative differentiate between indefiniteness and definiteness in Estonian.

Murnikova (2012 [1962]: 57) provides examples from the old settler's varieties with subject in genitive in existential sentence:

(24a) Old

Vsjak-ix *jest'* *ljudej*
all kind-GEN.PL be:3 people:GEN.PL
'there are all kinds of people'
(modified from Murnikova 2012 [1962]: 57)

(24b) Standard Russian

Vsjak-ije *jest'* *ljudi*
all kind-NOM.PL be:3 people:NOM.PL
'there are all kinds of people'

(24c) Estonian

On *igasuguse-i-d* *inimes-i*
be:3 all kind-PL-PART people-PART.PL
'there are all kinds of people'

Murnikova (2012 [1962]) does not comment on the possible origin of this function of genitive and does not mention bilingualism. True, this feature does occur in Russian regional dialects but not in modern common Russian. Leisiö (2012: 107–108) suggests that, indeed, genitive in partitive meaning was characteristic of Russian dialects in general in the beginning of the 20th c., yet Estonian possibly supports such use and, actually, several Russian dialectal features that are sometimes linked to Finno-Ugric substratum may be supported by analogies in the language of the environment (Estonian).

In the newcomers' Russian no such usage has been attested in the literature. I have heard very few instances of genitive usage to express a partial object as it is common in Estonian, and this anecdotal evidence is not enough for analysis.

Deletion or blurring of opposition may be regarded as copying as well. Usually, copying leads to changes and addition (of lexical items, combinability rules, etc.) but it may lead to disappearance of distinctions if the model code does not have them. In Russian, the verb has aspect (perfective or imperfective) but this category lacks in Estonian. Mürkhein (1968b: 177) talks about the blurring of aspectual opposition in frequent, recurring actions in the old settlers' Russian variety of Mehikoorma and

ascribes this to the impact of Estonian (Mürkhein 1968b: 179). Consider perfective *prinjos* 'brought' vs. imperfective *prinosil* 'used to bring':

(25a) Old

On	*každ-yj*	*večer*	*prinjos*	*ryb-y*
he	every-ACC	evening:ACC	bring:PST	fish-GEN

'he would bring fish every evening'
(modified from Mürkhein 1968b: 177)

(25b) Standard Russian

On	*každ-yj*	*večer*	*prinosi-l*	*ryb-u*
he	every-ACC	evening:ACC	bring:PST	fish-ACC

'he would bring fish every evening'

(25c) Estonian

Ta	*tõi*	*kala*	*iga-l*	*õhtu-l*
PRON.3SG	bring:PST	fish:PART	every-ADE	evening-ADE

'he would bring fish every evening'

In Estonian, the meaning of a recurring action is rendered lexically *igal õhtul* 'every evening'.

Külmoja (2004: 89) claims that the choice of aspect among those whose first language is Russian is sometimes unexpected and erroneous. She refers to the newcomers' Russian but provides no examples. According to her, it is too early to talk about the erosion of aspectual opposition, and the phenomenon requires further research.

4.3 Mixed copying

As discussed earlier (Section 3.2.), the notion of mixed copying has proven to be helpful because it gives descriptive accuracy. Without it, it would be difficult to analyse instances like (7a). Because of this metalanguage problem, it is extremely difficult to identify MCs in the literature on the old settlers' varieties; one has to go through all examples that may appear under different headings. Example (7a) is probably the only one. Earlier research on the newcomers' varieties shows that multi-word items, compound nouns

and analytic verbs are often subjects to mixed copying (Verschik 2008: 124–129; 146–149; Verschik 2016).

4.3.1 Compound nouns

There are intermediate categories between mixed and global copying when both components are common internationalisms; all depends how these items are pronounced. If Estonian *kinnisturegister* 'real estate register' is pronounced according to Estonian rules (two stresses, the main on the head *register* 'register' and the secondary on the modifier *kinnistu* 'real estate'), it should be classified as a GC; if it is pronounced with only one stress on the head and the internationalism is in its Russian form, i.e. [kinnistureg´istr], it would qualify as a MC. Some cases are prototypical MCs like (25a):

(25a) New
sjastu*-kartočka*
Estonian *sääst-u* saving-GEN + Russian *kartočka* 'card'
'**saving** card' (a discount card for loyal clients)

(25b) Estonian
sääst-u-kaart
saving-GEN-card
'loyal client card, saving card'

The concept exists in Russian of Russia but it may be expressed in a variety of ways. Like in Estonia, different chains give different names to this kind of cards, so it is difficult to provide an unambiguous equivalent from Standard Russian. Adamson (2009: 34–35) discusses the Estonian component *info* 'information', which is a conventionalized abbreviation from *informatsioon* 'information'. Although her analysis is based on Tallinn newspapers that appear in both languages, the same is true of oral speech. Consider (26a):

(26a) New

***info**-ukazatel'*

information-sign

'sign with **information**' (explaining what services are located in the building etc.)

(26b) Estonian

info-viit

information:GEN-sign

'sign with information'

Again, it would be difficult to provide an equivalent in Standard Russian, probably, it would be just *ukazatel'* 'sign' or *vyveska* 'sign'.

There are two more types of compound nouns that yield MCs. The first one includes compound nouns whose first component is a proper name (toponym, personal name etc.) like *Toolse leib* 'Toolse bread' > *Tolse xleb* where the order N GEN + N NOM is preserved (see discussion in Verschik 2008: 127). In the second one, the globally copied component is an abbreviation, for instance *e-valitsus* 'electronic government' (*e* stands for *elektrooniline* 'electronic') yields *è-pravitel'stvo*, where *pravitel'stvo* means 'government' (Verschik 2008: 128–129).

4.3.2 Analytic verbs

At times, the very same analytic verbs that are subject to selective copying may also appear in the form of MCs. Recall Example (19a) where the Estonian verb *pähe õppima* 'to learn by heart' is copied into Russian and the different idiom in Standard Russian. In (27a), the verb is copied selectively and the modifier globally:

(27a) New

Ja	*vsjo*	***pähe***	*uči-l-a*
I	all:ACC	head:ILL	learn-PST-FEM

'I learned (fem.) everything by heart' (literally, 'I learned everything into the head')

(Verschik 2008: 66)

(27b) Standard Russian

Ja	*vsjo*	*naizust'*	*uči-l-a*
I	all: ACC	out of lips	learn-PST-FEM

'I learned (fem.) everything by heart'

(27c) Estonian

Õppi-si-n	*kõik*	*pähe*
learn-PST-1SG	all:NOM	head-ILL

'I learned everything by heart'

Some other examples of MCs of analytic verbs are discussed in Verschik (2008: 146-149). In some cases, both SCs and MCs are possible. However, sometimes it appears that only mixed copying is an option because an idiom is not translatable, and SC (which is a translation in essence) would be misinterpreted. Consider (28a), where *polučit' eksmat* 'to get expelled (from the university etc.) is modelled on colloquial Estonian *eksmatti saama* with the same meaning. The noun *eksmatt* is derived from *eksmatrikuleerima* 'to expel' and the support verb *saama* means 'to get'. In Russian, no such construction is possible and only the verb *isključit'* 'to expel' can be used. The noun *isključenije* has a lot of meanings such as 'expulsion', 'exception', 'exclusion', and it cannot be used in a verb construction in such a context.

(28a) New

polući-t'	***eksmat***
get-INF	expulsion:ACC

'to get expelled'

(Verschik 2008: 148-149)

(28b) Russian (hypothetical SC)

**polući-t'*	*isključenije*
get-INF	expulsion

'to get expelled'

(28c) Estonian

eksmatt-i	*saa-ma*
expulsion-PART	get-INF
'to get expelled'	

Thus, so far, MCs appear in compound nouns and analytic verbs. Theoretically, various kinds of multiword items may be subject to mixed copying. Importantly, the component that is globally copied is modifier, while the head is selectively copied. The modifier is what makes the head more specific, for instance, *pähe õppima* 'to learn by heart' is more specific than *õppima* 'to learn, to study'.

5. Discussion and conclusions

Comparison of copying in the two varieties, presented in Section 4, is summarised in Table 1 in order to give an overview of similarities and differences.

Although there is no quantification (i.e., the number of copies of each type; frequency of particular copies etc.) and it is questionable whether quantification of heterogeneous data, collected at different points and for different purposes is possible, some conclusions may be drawn.

(1) Table 1 demonstrates that types of copied items are fairly similar in the two groups of speakers. As mentioned above, almost complete absence of mixed copies in the old settlers' Russian may be ascribed to metalanguage that does not have this notion, and researchers do not conceptualise the phenomenon as such.

(2) As expected, global copying of isolated lexical items takes place in both varieties. Most often these are nouns. In the newcomers' variety there is also evidence of copying of discourse pragmatic markers but not in the old settlers' variety. Still, I would refrain from a categorical claim that discourse pragmatic markers are not copied in the old settlers' speech because this may be an issue of metalanguage and principles of
linguistic description common back then. The importance of pragmatic markers for contact linguistic research was acknowledged in the 1990s and

not in the 1960s-1970s when the main body of literature on the old settlers' variety was produced.

Degree of copying			Old	New	Notes
Global	content words		+	+	
	discourse particles		-	+	
Selective	Phonology (material)		+	+	In the newcomers' variety only in rendition of internationalisms
	semantic (semantic extensions)	content words	+	+	
	Semantic combinational	compound nouns	+	+	
		analytic verbs	+	+	
	combinational	Verbs requiring partitive object	+	-	
		Verbs requiring directional or separational government	+	+	
		Word order in genitive NP	-	+	In the newcomers' variety the instances are not numerous
		gerundive	+	-	Only one example in the old settlers' variety
	copying of functions	Genitive for partial object and subject	+	?	No examples in the literature on the newcomers' variety but, admittedly, it occurs
		Weakening of aspectual opposition	+	?	Mentioned to be present in the newcomers' variety but no examples
Mixed	compound nouns		+	+	Only one example form the old settlers' variety
	analytic verbs		-	+	

Table 1. Comparison of copying in both varieties

(3) Some copying occurs in phonology, but in this respect the situation in the two varieties differs. In the old settlers' Russian some phonemes and their combination have been replaced by close but not identical Estonian equivalents and appear in Russian lexical items, while in the newcomers'

Russian only realisation of common internationalisms is copied from Estonian. Judging from this, Estonian impact on the old settlers' Russian is somewhat stronger because of the longer duration of the contacts, massive bilingualism and, at some point, isolation from other Russian varieties.

(4) Notably, all three types of copies of compound nouns appear in both communities (although mixed copying appears only infrequently in the literature on the old settlers' variety, but see note on metalanguage). Analytic verbs are not globally copied in either community; this may be explained by the fact that verbs in general are seldom subject to global copying, although global copying of some Estonian verbal stems into Russian does occur. There may also be a structural reason because verbs tend to have more "structure" than nouns and require more morpho-syntactic integration, Russian does not have analytic verbs as Estonian has them, and the structural dissimilarity may be too large and global copying of analytic verbs may require a lot of cognitive effort. This question should be investigated further.

(5) There is some difference between the two communities as far as combinational copying is concerned. Copying of argument structure in directional/separational verbs is attested in both communities but the copying of argument structure in VP requiring partitive appears only in the old settlers' variety. Currently, I do not have an explanation for this. Evidence about gerundive construction is scarce in the old settlers' variety and absent in the newcomers' variety, so nothing cannot be concluded from that.

(6) In copying of functions, only anecdotal evidence exists or the facts are merely mentioned but no examples are provided for the newcomers' variety, hence question marks in the respective column. If meaning is taken into consideration, then function is meaning in a more abstract sense (i.e. partial vs. total etc.) than specific meaning of lexical items. Apparently, copying of abstract meaning requires more cognitive effort and a longer time of exposure and entrenchment (see similar observations in Verschik and Kask 2019: 26).

(7) The overall similarity of the contact phenomena in both varieties suggests that, in the terms of Thomason and Kafuman (1988) and Thomason (2001), both communities are more or less at a similar stage of moderate contact-induced language change: lexical borrowings, semantic

extensions, loan translations, phonological and prosodic changes and moderate changes in morphosyntax (word order, argument structure, etc.), although the newcomers' group bilingualism is relatively recent.

To sum up, although the starting point of each community was different (old minority vs. recent migrants, rural vs. urban, stable bilingualism vs. recent etc.), the similarities in contact-induced language change in both varieties are evident. At the same time, some types of copying, namely, those of functions are more prominent in the old settlers' variety. Apparently, such copying requires greater exposure to Estonian and more time for entrenchment and conventionalization because grammatical meaning is abstract. It is possible to say that the situation is becoming more similar for both communities because of sociolinguistic dominance of Estonian in the official domains. If no purist discourse and/or wish for codification of local Russian emerges, one would expect more contact-induced changes in morphosyntax and grammatical functions.

Abbreviations

ABL = ablative
ACC = accusative
ADE = adessive
ALL = allative
COMP = comparative
CONV = converb
DAT = dative
DER = derivational suffix
ELA = elative
FEM = feminine
GEN = genitive
ILL = illative
IMPS = impersonal
INE = inessive
INF = infinitive
LOC = locative

N = noun
NP = noun phrase
NOM = nominative
PART = partitive
PL = plural
PREF = prefix
SG = singular
VP = verb phrase

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