# On the Uralic Languages

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April 10, 2020

#### Abstract

This paper discusses the Uralic Language family. The three most spoken languages in this family include: Hungarian, Finish, and Estonian. This paper first will compare a morphological feature of these three Uralic Languages. Secondly, this paper will discuss the genealogical relationships of the Uralic Languages and any interactions with non-Uralic languages.

#### 1 Introduction

The Uralic Language Family refers to a group of languages spoken in Northern Eurasia, containing over thirty languages. Abondolo (1998, p. 1) The three largest spoken languages in this family include: Hungarian, Finish, and Estonian. These languages are part of the Finno-Ugric branch of the Uralic Language Family Abondolo (1998, p. 3). The origin and genetic relationships of the Uralic Languages will be discussed further in the Historical Aspect section of this paper.

#### 2 Linguistic Feature

The linguistic feature chosen to analyze in this paper is the case systems for nouns. The Uralic Languages are known to have an expansive case system, much more than other highlyinflected languages. For the scope of this paper, the case systems of Hungarian, Finnish, and Estonian will be compared, as they are three most spoken Uralic languages. The textbook, *Languages of the World* defines case as "a set of affixes or word forms that is used to distinguish the different roles of the participants in some event or state" Pereltsvaig (2017). For example, Indo-European languages have at the very least, a nominative and accusative case, indicating the subject and object respectively. Pereltsvaig (2017). Originally, the Uralic languages did not have an extended case system, "In Proto-Uralic, the noun had at least two grammatical cases: an accusative \*-m, which probably was used chiefly to mark the definite direct objects of finite verbs... and a subordinative suffix \*-n which functioned as a genetive/prenominalizer with nouns and as adverbformant with verbs" Abondolo (1998, p. 18). In addition, "there were also at least three local cases, including a locative \*-nA, a separative \*tA \*tI, and perhaps the latives \*-k (and/or \*-ŋ)"Abondolo (1998). These three cases are used to relate the spacial relationships of nouns. The three modern languages selected for analysis have since developed a large variety of cases, which will be discussed at length. It should be noted that for many of these languages, including Hungarian, "The precise number and inventory of of the case suffixes is a matter of dispute" Abondolo (1998, p. 440). It can be argued that Finnish has at least 15 cases Maekinen (1999), Hungarian 16 cases Abondolo (1998, p. 440), and Estonian 15 cases Abondolo (1998, p. 126).

The following chart gives an overview of the nominal cases used by Hungarian, Finnish, and Estonain Abondolo (1998) and Maekinen (1999). The right-most column provides an English word or grammatical element that roughly corresponds with the given case. Note some missing cases, for example the Hungarian genetive, are constructed using a seperate system of suffixes, and therefore are not counted.

Case	Hungarian	Finnish	Estonian	Corresponding English element
Nominative	YES	YES	YES	subject
Accusative	YES	YES	NO	direct object
Genetive	NO	YES	YES	''s' / "of "
Dative	YES	NO	NO	"to " / indirect object
Partitive	NO	YES	YES	"some "
Essive	NO	YES	YES	"as "
Translative	YES	YES	YES	"becoming "
Inessive	YES	YES	YES	"in "
Elative	YES	YES	YES	"out of " / "from "

Illative	YES	YES	YES	"into "
Adessive	YES	YES	YES	"on the "
Ablative	YES	YES	YES	"from "
Allative	YES	YES	YES	"onto "
Abessive	NO	YES	YES	"without "
Comitative	NO	YES	YES	"with "
Instrumentive	YES	YES	NO	"by " / "with "
Superessive	YES	YES	NO	'where', 'here', etc.
Delative	YES	YES	NO	"from "
Sublative	YES	YES	NO	"to "
Causal-final	YES	NO	NO	"for the purpose of "
Terminative	YES	NO	YES	"up to "

This list of cases can be subdivided into smaller groups of similar function. The first group is referred to as the grammatical cases. This group includes the nominative, genetive, accusative, and dative cases. The nominative case is used to mark the subject of a sentence. The genetive case is used to indicate an attributive relationship of one noun to another. The accusative case is used to indicate the direct object of a transitive verb. The dative case is used to indicated the indirect object. This cases are combined because they convey essential grammatical function Maekinen (1999).

The next group, the general local cases, include the essive, partitive, translative cases.

The partitive case indicates a noun is a part of something. The essive case indicates the state of being a noun. The translative case indicates a change into another noun Maekinen (1999). The third group are the interior local cases, including the inessive, elative, and illative cases. The inessive case indicates the state of being inside a noun. The elative case indicates the motion of exiting or moving away from a noun. The illative case, indicates the opposite of the elative case, that is movement out or away from a noun. Maekinen (1999)

The fourth group are the exterior local cases, which include the adessive, ablative, and allative cases. The adessive case indicates the state of being on or near a noun. The ablative case expresses movement from the surface or vicinity of a noun. The allative case is the opposite of the ablative case, and indicates motion onto the surface or into the vicinity of a noun. Maekinen (1999) The fifth group are the means cases, including the abessive, comitative, and instructive. The abessive case expresses the lack of a noun. The comitative case expresses the presence of a noun. The instructive/instrumentive case expresses the use of a noun to perform an action Maekinen (1999).

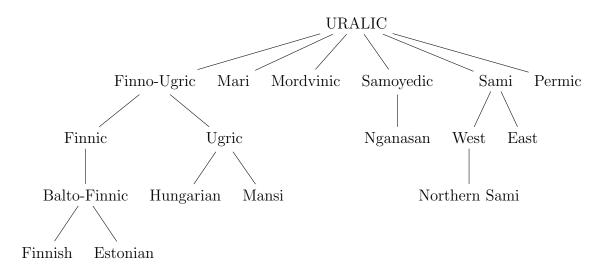
All of the other cases are limited to a small number of words, and are therefore regarded as adverbial cases Maekinen (1999). This category includes the superessive case, which expresses the place something is located. This case or suffix is applied to a limited number of pronouns to form a complete word Maekinen (1999). The next case is the Delative case, which is combined with a pronoun to described where something is from Maekinen (1999). The sublative case is the opposite of the Delative case, as it is combined with pronoun to describe where something is to go. The terminative case is used to specify an action's limit in space/time. The causal-final case is used to express the cause of emotion or the goals of an action. There are a few additional cases or bounded suffixes that are omitted from this list, as they are not part of the core case systems of these languages.

At this point the meaning conveyed by each of these cases have been stated, however there is additional complexity of the case systems to discuss. Because the morphology of words are formed by adding suffixes to a root, these languages would be classified as synthetic and therefore are either fusional or agglutinative languages Pereltsvaig (2017). Most Uralic languages are agglutinative, meaning the morphology uses multiple affixes chained together to form the complex meanings of words Pereltsvaig (2017). Like most Uralic languages, Hungarian, Finnish, and Estonian are agglutinative languages Abondolo (1998) While these cases provides additional grammatical meaning to nominals, the entire word is completed with the agglutination of additional affixes that can convey person or number. In contrast, in an inflectional language multiple grammatic functions (case, person, number) are combined into a single morpheme Pereltsvaig (2017).

As an added complexity, the case systems of Hungarian and Finnish conform to their respective systems of vowel harmony. That is the vowels of each morpheme must be of the same class, thus harmonizing. For example, in Uralic languages, the position of a vowel (front, back, or neutral) form a class of vowels. As a result, each case ending has a phonetic variation depending on the preceding vowels of the root word. Interestingly, Estonian has lost its vowel harmony Abondolo (1998). It is important to note that languages can share a similar phenomenon without being genetically related. For example, languages that are geographically close are prone to borrowing features through contact. However the relatedness of the Uralic languages are demonstrated through the use of cognates in addition to grammatical features. In this case, the phenomenon of the extended case systems across Uralic Languages demonstrates an interesting evolution. As pointed out earlier, Proto-Uralic had a limited number of cases but overtime these languages developed in the direction of increased complexity in the domain of its agglutinative morphology. The opposite could be said of many Indo-European languages. For example, Proto-Indo-European had multiple noun cases, but its descendants such as Italian or English have largely abandoned their case systems Pereltsvaig (2017).

### **3** Historical Aspect

This section will first discuss the genealogical relationships and historical elements of the Uralic languages. Such historical elements include the divergence of these languages, and the interactions with other unrelated languages. Below is a tree depicting a simplified phylogenetic tree of the Uralic languages Abondolo (1998) and Pereltsvaig (2017).



As shown above the Uralic family has seven main branches (Balto-Finnic, Ugric, Mari, Mordvinic, Samoyedic, Sami, and Permic. Included in this tree are the languages referenced in this paper (Finnish, Estonian, Hungarian, Mansi, Ngansan, and Northern Sami. In total, the Uralic family has 38 languages spoken by 25 million people. Of the Uralic languages, many are spoken by a small number of people and thus are likely to go extinct Ethnologue (n.d.). The vulnerability of these languages are compounded by the sparse distribution of its speakers and exposure to imperial languages, namely Russian.

To get an understanding of how much the Uralic languages have diverged from each other, consider the table below. The cardinal numerals [0-10] of genetically distant Uralic Languages are shown in the following table Abondolo (1998). Each language selected belongs to a different language family.

gloss	Estonian	Mansi	Ngansan	Northern Sami
0	null	n/a	n/a	nol'la
1	ük	ak <sup>w</sup> (a)	ŋu?əi?	okta
2	kaks	kit(ix)	s <sup>j</sup> iti	guoktę
3	kolm	xuurəm	nagür	golba
4	neli	n <sup>j</sup> ila	t <sup>j</sup> etə	njeallje
5	viis	at	səŋhəl <sup>j</sup> aŋkə	vihtta
6	kuus	xoot	mətü?	guhtta
7	seitse	saat	s <sup>j</sup> ajbə	čieža
8	kaheksa	n <sup>j</sup> ololow	s <sup>j</sup> itiðətə	gávcci
9	üheksa	ontolow	ŋam <sup>i</sup> at <sup>j</sup> ümə	ovcci
10	kümme	low	bii?	logi

As shown in the data above, it is difficult to find regular patterns or sound correspondences. Obviously, the word for zero is not a cognate, as it derives from Latin's nullus. It appears the consonants [k] and [l] tend to be preserved across these languages. The consonant [k] is the voiceless velar plosive, its counterpart being [g] the voiced velar plosive. One can observe a regular sound change involving these two phonemes. For example, in Estonian and Northern Sami, it appears the [k] changes to a [g], in the numerals two, three, six, and eight. Similar patterns studied on a broader data set would be used to further prove the lineages of the Uralic languages. Compared to Indo-European, it Uralic does not appear to have as regular sound correspondences, such as Grimm's Law Pereltsvaig (2017). This suggests the relationship between Uralic languages are harder to prove than Indo-European languages.

The difficulty in proving relationships of languages within and outside the Uralic language family is complicated through interactions with other non-Uralic languages. This final section will discuss a select few interactions with non-Uralic Languages. The largest influences on Uralic come from Indo-European languages as this family dominates the Uralic language family in terms of size and geography Pereltsvaig (2017). Of the Indo-European languages, Latin and Germanic languages have contributed a significant number of loanwords into Uralic. The first table contains Germanic loanwords into Proto-Finnish Abondolo (1998, p. 178-179).

Proto-Finnic	Germanic	gloss
SAIRAX	sairas	'ill' see English 'sore'
RENKAX	rengas	'wheel' see English 'ring'

TUTTARE	tytaer	'daughter'
KUNNIKAX	kunnigas	'king'

Hungarian, given its unique geographic environment has loanwords borrowed from a variety of languages, some of which are non-IndoEuropean. The table below shows examples of words borrowed from Iranian, Turkic, and Slavonic languages Abondolo (1998, p.453).

Hungarian	possible family of origin	gloss
TIZA tiz	Iranian	'ten'
TAIHA tehen	Iranian	'cow'
borju	Turkic see buzagi	'calf'
pogany	Slavonic	'pagan'

This final sectional will discuss interactions between the Uralic and Yukaghir languages. The data and sound correspondences come from a paper by Jaakko Haekkinen of the University of Helsinki, where he discusses these interactions in a discussion of the location of the proto-Uralic homeland. As Uralic borrowed words from Indo-European languages, the Yukaghir languages, who are also located in northern Eurasia, borrowed several words from Uralic. These borrowings demonstrate several regular sound changes, and are denoted Uralic U Yukaghir Y.

U *s	ΥØ	gloss
*sala	*olo	'to steal'
*sula	alaa	'to melt'
U *s	Y *l	gloss
*sewi	*ley	'to eat'
*saxi	*laq	'to come'

As shown in the data above, these loanwords into Yukaghir follow regular sound changes from \*U [s] into \*Y [ $\emptyset$ ] and \*U [s] into \*Y [l] Haekkinen (2012). These samples demonstrate that the Uralic languages have had multiple complex interactions with other language families.

### 4 Conclusion

This paper has given an overview of the morpho-phonological functionality of the Uralic case systems. Uralic languages have an extended number of cases, and in many Uralic languages, conform to a vowel harmony scheme. This section also discussed whether Estonian, Finnish, and Hungarian have an agglutinative or inflection morphology. The second section, discussed historical aspects of the Uralic language family. These include the overall phylogenetic relationships of the Uralic family, and discussed a set of numerals to determine any cognates or sound correspondences. Lastly, this section discussed interactions in the form of loanwords into and out of the Uralic family. This section covered a variety of languages spanning across multiple language families of Eurasia.

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