All by itself - why there are no portmanteaus in Uralic

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Claim: We argue that there are no portmanteau morphemes in the definite conjugation of the Uralic languages. There has been a long debate in the Uralic literature on this topic including Collinder 1957, Raun 1988, Salminen 1997, Künnap 1999, Körtvely 2005, Aranovich 2007. All these authors argue for the existence of portmanteaus in a a variety of Uralic languages, Abondolo 1982 being the first who denies this. Recently, the discussion on the status of portmanteaus in general has arisen anew. Caha 2008, 2010 claims that Portmanteaus must exist, whereas Trommer 2007 shows that there are alternative ways of analyzing potential portmanteaus by independently existing concepts like contextual allomorphy. We claim that a portmanteau analysis in the Uralic languages is not tenable for empirical reasons. Hence, the existence of portmanteaus is an illusion which people gained because of the complex interaction of marker composition, allomorphy and phonological interface conditions.

Background: With the term "portmanteau" we refer to a single unanalyzable morpheme which expresses features of two syntactic heads simultaneously that are realized by two separate morphemes in other contexts. In particular, we concentrate on portmanteau morphemes which express features of both arguments of a transitive verb simultaneously. Portmanteau agreement is systematically ambiguous to Ø-exponence (Trommer 2007): In a realizational morphological framework (e.g. Network Morphology (Corbett & Fraser 1993), Distributed Morphology (Halle & Marantz 1993, Halle & Marantz 1994), Paradigm Function Morphology (Stump 2001), Anderson 1992)a portmanteau M can be respresented as
i) a "real" portmanteau which realizes features of two heads x and y (x bearing subject and y bearing object features) simultaneously: M ↔ [x][y]
ii) a single marker M which only expresses [x] and which is adjacent to a zero morpheme expressing [y], giving the illusion of a portmanteau on the surface. We argue that the second solution in a generalized version is the correct one for the alleged Uralic "portmanteaus" such that there are no markers M ↔ [x][y]. The analysis in i) is empirically not tenable.

Uralic languages: In the Uralic languages in column 2 in (1), a transitive verb only agrees with its subject. In the languages listed in column 1 a transitive verb can agree with its subject *and* also with the object (in number and/or person) if the latter is definite (definite conjugation), but not if it is indefinite (indefinite conjugation). For our discussion of portmanteaus as defined above only the languages with subject and object agreement are important (column 1).

(1)   *Conjugation patterns in the Uralic language family (cf. Körtvely 2005)*

1		2	
subject and object agreement		**only subject agreement**	
Khanty (Ugric)	Hungarian (Ugric)	Saami (Saami)	Mari (Mari)
Mansi (Ugric)	Nenets (Samoyedic)	Finnish (Finnic)	Udmurt (Permian)
Mordva (Ugric)	Enets (Samoyedic)	Estonian (Finnic)	Karelian (Finnic)
Selkup (Samoyedic)	Nganasan (Samoyedic)	Veps (Finnic)	
Mator (Samoyedic)	Kamas (Samoyedic)	Komi (Permian)	

Empirical evidence: We present three arguments against a portmanteau analysis of Uralic: a) There is independent evidence for the segmentation of verbal suffixes into submarkers which encode either only subject or only object features. b) Undoing phonological processes reveals that a marker has a wider distribution than we can see on the surface. c) The distribution of a marker in the indefinite conjugation suggests that it cannot be a portmanteau. We address each of them in turn on the basis of selected examples.

SEGMENTATION: A marker M is not a portmanteau if it can be broken down into smaller submarkers M_1 and M_2 each of which expresses only the features of one argument (M_1 expresses subject and M_2 object features). It can be shown that such an analysis is advantageous and independently motivated in the Uralic languages (for the concept and motivation of this kind of marker segmentation see e.g. Pike 1965, Halle 1992, Noyer 1992, Anderson 1992, Corbett &

Fraser 1993, Halle & Marantz 1993, Wunderlich 1996, Stump 2001, Harbour 2003). The reason is that these submarkers occur as single morphemes in non-verbal paradigms. In general, verbal and nominal inflection take their inflectional exponents from the same set of markers in Uralic, e.g. person/number affixes can be attached to nouns or verbs (= the possessive declension found in all Uralic languages). Assuming that markers with an identical phonolgical form should be analysed as an instance of the same morpheme if possible (cf. the *Syncretism Principle* in Müller 2004) we segment the verbal suffixes into submarkers found in the nominal domain. We illustrate this point with Mordvin. The definite past paradigm is given in (2). The initial /i/ is the past tense marker, the second /i/ is an epenthetic vowel (cf. Abondolo 1982, Zaicz 1988). These two markers do not express ϕ-features of the arguments and thus can ignored for our purposes (they are not represented in (6)).

(2)   *Definite past paradigm of Mordvin (Zaicz 1988:199)*:

S \ O	1sg	2sg	3sg	1pl	2pl	3pl
1sg	—	-itin^j	-ija	—	-id^{j}iz^j	-in^j
2sg	-imik	—	-ik	-imiz^j	—	-i^{j}t
3sg	-imim	-in^{j}z^{j}it^j	-iz^{j}e	-imiz^j	-id^{j}iz^j	-in^{j}z^{j}e
1pl	—	-idiz^j	in^{j}ek	—	-id^{j}iz^j	-in^{j}ek
2pl	-imiz^j	—	-iŋk	-imiz^j	—	-iŋk
3pl	-imiz^j	-idiz^j	-iz^j	-imiz^j	-id$_j$iz^j	-iz$_j$

Comparing the verbal paradigm with the personal pronouns in (3) shows that /m/ encodes 1st, /t/ 2nd person, and /iz/ (reduced to [i] in non-final position) plural. /k/ means 2nd person, too, because it is used to express the 2sg imperative, see (4). In the possessive declension of the noun *kudo* 'house' in (5) we see the same markers found in other paradigms like /m/, but also e.g. /nze, ze/ as a marker for 3rd person (e-o alternation is due to vowel harmony), /n/ for 1st, /nek/ for 1st plural, /nk/ is 2nd plural.

(3)   *Personal pronouns, (Zaicz 1988:199, Raun 1988:104)*

1sg	mon
2sg	ton
3sg	son
1pl	min'
2pl	tin'
3pl	sin'

(4)   *Imperative (Zaicz 1988:201)*:
a.   vano-k = look-2sg = Look! (sg)
b.   vano-do = look-2pl = Look! (Pl)

(5)   *Possessive declension of nouns (Raun 1988:102)*:

1st sg, one possession	kudo-m
2nd sg, one poss.	kudo-t
3rd sg, one poss	kudo-zo
1st sg, more than one poss.	kudo-n
2nd sg, more than one poss.	kudo-t
3rd sg, more than one poss.	kudo-nzo
1st pl, one/more than one poss.	kudo-nok
2nd pl, one/more than one poss.	kudi-nk
3rd pl, one/more than one poss.	kudi-st

The result of segmentation of the underlying forms is shown in (6). Segmentation in Mordvin leads to a paradigm in which there is not even a potential portmanteau. What is more, the segmented paradigm allows for a simple and elegant generalization about the distribution of person and number markers which cannot be stated if we had unsegmented forms: The verb agrees in person with the object if it is local person, otherwise it references person of the subject. The verb agrees with the subject in number if it is plural, otherwise it references plural of the subject (= hierarchy effects, cf. Béjar 2003). Hence, the system is fully transparent after segmentation. Furthermore, as the smaller segments are also found in nominal paradigms, segmentation leads to syncretism between verbal and nominal paradigms and the analysis can capture the distribution in both (because markers are not specified for a category).

We applied this segmentation strategy to all other Uralic languages as well, but sometimes there still remain alleged portmanteaus after segmentation. However, even those instances turn out to be no "real" portmanteaus on the basis of the observations discussed in the next sections.

PHONOLOGICAL PROCESSES: In Mansi (see the partial paradigm in (7)) definite conjugation, the exponents for singular objects is /l/, for dual objects /aɣ/ and for plural objects /an/ (Keresztes 1988)[1]. This marker is directly attached to the stem and is followed by a subject marker. However, when a 3rd person singular subject acts upon a singular object, the object marker /l/ is missing. Hence, it could be said that /te/ expresses subject features and a singular object simultaneously: /te/ ↔ [+3 +sg]$_A$[+sg]$_P$ (abbreviations: A stands for subject and P for object).

(6)   *Segmented definite past paradigm in Mordvin*:

O \ S	1sg	2sg	3sg	1pl	2pl	3pl
1sg	—	-t -n 2 1	-a 1	—	-t -iz 2 pl	-iz -n pl 1
2sg	-m -k 1 2	—	-k 2	-m-iz 1 pl	—	-iz -t pl 2
3sg	-m -m 1 1	-nze -t 3 2	-ze 3	-m -iz 1 pl	-t -iz 2 pl	-iz -nze pl 3
1pl	—	-t -iz 2 pl	-iz -nek pl 1	—	-t -iz 2 pl	-iz -nek pl 1
2pl	-m -iz 1 pl	—	-iz -ŋk pl 2	-m -iz 1 pl	—	-iz -ŋk pl 2
3pl	-m -iz 1 pl	-t -iz 2 pl	-iz -ø pl 3	-m -iz 1 pl	-t -iz 2 pl	-iz -ø pl 3

(7)   *Definite non-past paradigm of the verb uunti- 'to occupy' (Keresztes 1988:402)*:

O \ S	sg	du	pl
1sg	uunti-l-əm	uunti-jaɣ-əm	uunti-jan-əm
2sg	uunti-l-ən	uunti-jaɣ-ən	uunti-jan-ən
3sg	uunti-te	uunti-jaɣ-e	uunti-jan-e
1du	uunti-l-amen	uunti-jaɣ-men	uunti-jan-men
2du	uunti-l-en	uunti-jaɣ-en	uunti-jan-en
3du	uunti-l-en	uunti-jaɣ-en	uunti-jan-en

But there is reason to doubt this analysis: /te/ actually shows up *whenever* the subject is 3rd person singular. On the surface this cannot be seen because /te/ is reduced to /e/ after consonants, an alternation also found in the possessive declension:

(8)   a.   aaɣi-te 'his/her daughter'; piɣ-e 'his/her son'   *(Keresztes 1988:396)*
        b.   waari-te '(s)he makes it'; waari-jaɣ-e 'she makes them (dual)'

(9)   *Underlying forms of 3sg A acting on non-singular objects*:
        a. 3sg A -> dual P: uunti-jaɣ-te   b. 3sg A -> plural P: uunti-an-te

As dual and plural objects also have /te/ as an exponent, /te/ cannot be specified for the number of the object; it can only be a 3rd person non-plural subject marker and hence not a portmanteau as defined above. What is exceptional in these contexts is then the absence of the object singular marker /l/. Here we propose an account in terms of allomorphy: /l/ has a zero allomorph which is restricted to the context of [+3 +sg] subjects: Ø ↔ [+sg]$_P$ / [+3 +sg]$_A$

DISTRIBUTION ACROSS CONJUGATIONS: Another objection to a portmanteau analysis of a morpheme X in the definite paradigm is the fact that X also occurs in the indefinite conjugation. As long as we adhere to the Syncretism Priciple, the two occurrences of X in the definite and the indefinite conjugation should be analyzed as the same morpheme. As the indefinite conjugation comprises intransitive verbs which do not have a direct object, X cannot express features of the object. An example of such a pattern can be found in Nenets (the

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[1]Insertion of the glide [j] before the object number marker applies in order to avoid a hiatus.

reasoning also applies to Enets, Nganasan, and Hungarian). The three conjugations in Nenets are shown in (10). The subject person marker is attached to the stem and is followed by the subject number marker. In Nenets, as in all Northern Samoyedic languages, the dual object receives a distinct marker which is inserted between stem and subject person marker (-*xøyu-* in Nenets). Moreover, for singular and non-singular objects, the suffixes for 1st and 2nd person subject differ (cf. Körtvély 2005, Salminen 1997). The alternating morphemes **-n** (vs. **-m**) and **-t** (vs. **-r**) occur also in the indefinite and the reflexive paradigm (expressing also only subject features), where no object is given. Consisting of single phonemes, they cannot be segmented any further either and therefore have been treated as portmanteau markers.

(10)   *Indicative aorist paradigm of Tundra Nenets, segmented (Körtvély 2005:68)*:

S \ O	indefinite —	definite sg	definite du	definite pl	reflexive —
1sg	-tøm	-m-ø	-xøyu-**n**-ø	**-n**-ø	-mt
2sg	-n∼t-ø	-r-ø	-xøyu-**t**-ø	**-t**-ø	-n∼t-ø
3sg	—	-t-(^{j})a	-xøyu-t-(^{j})a	-t-(^{j})a	-t
1du	**-n**-^{j}in	-m-^{j}in	-xøyu-**n**-^{j}in	**-n**-^{j}in	**-n**-^{j}in
2du	**-t**-^{j}in	-r-^{j}in	-xøyu-**t**-^{j}in	**-t**-^{j}in	**-t**-^{j}in
3du	-xøn	-t-^{j}in	-xøyu-t-^{j}in	-t-^{j}in	-xøn
1pl	-m-at	-m-at	-xøyu-**n**-at	**-n**-at	**-n**-at
2pl	**-t**-at	-r-at	-xøyu-**t**-at	**-t**-at	**-t**-at
3pl	-t	-t-(^{j})ot	-xøyu-t(^{j})ot	-t-(^{j})on	-t-t

However, the alternation of the subject suffix in the context of a non-singular object can be captured if we postulate a discrete marker for non-singular objects which is subsegmental: [CORONAL,-continuant] ↔ [-SG]. This marker cooccurrs with the discrete subject marker found in the indefinite conjugation and with singular objects, but being subsegmental it attaches to the subject marker and changes two main place features of it, which leads to the illusion that there is a different single marker which expresses features of subject and object simultaneously: The original **-m** turns into an **-n** and the **-r** turns into a **-t** in the context of non-singular (3rd person forms are not affected by this marker because they are already coronal and [-continuant]). This analysis is superior to a portmanteau analysis because it can also explain the regular sound changes from Proto-Uralic to Proto- (Northern) Samoyedic: The original subject person markers of today's Nenets are turned into -m (1st), -r (2nd) and -t by the subsegmental number marker. These three markers resemble the Proto-Uralic personal pronouns ***mV** (1st), ***tV** (2nd) and ***sV** (3rd) from which the verbal markers are derived. Hence, the diachronic change involved the loss of the subsegmental marker in the indefinite and singular object part of the paradigm, suggesting that the marker is indeed an independent morpheme.

A similar alternation which is triggered by subsegmental object number markers which are "fused" with subject morphemes at the phonological interface and seem to produce portmanteaus can be found in the other Northern Samoyedic languages (Nenets and Enets Tundra and Forest variations), as well as in Khanty dialects (e.g. Sherkal).

Summary: The existence of portmanteaus in the definite conjugation in Uralic languages is an illusion because there are empirical reasons against this assumption (segmentation, undone phonological processes, distribution of the markers across conjugations). The relevant morphemes either express only subject or object features, or they are allomorphs of a subject morpheme or subsegmental markers which alter the surface form of a morpheme. These alternative analysis are independently motivated (explains diachronic change, segmentation leads to a uniform analysis of syncretic forms in verbal and nominal paradigms and it allows for generalizations on marker distribution).