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New insights on the Hungarian objective conjugation

This paper argues that some surprising new diachronic insights can be gained on the so-called objective conjugation of Hungarian – or at least some hypotheses can be put forward which seem rather plausible. Most notably, the 1st person plural suffix *-juk* (back-vowel allomorph) can be traced back to **-já-muk*, making use of the fact that Uralic **m* was partly shifted to **w* in Hungarian and that contractions occurred. In addition, related issues concerning the forms of the objective conjugation are explored. The paper uses the method of internal reconstruction in combination with what is known about Hungarian sound history.

1. Background of the present study

In the vast majority of the languages of Europe, the verb can express only properties of the subject, e.g. Czech *miluji* 'I love', *miluješ* 'you love', etc. The present indicative has six forms, arising from three persons combined with two numbers. It does not play any role for the shape of the Czech verb form who is loved – this will not make any difference for verb inflection. In Hungarian, in contrast, also the object can be cross-referenced (marked) in the verb: *szeretek* 'I love' (e.g. *egy lányt* 'a girl'), *szeretem* 'I love her' (e.g. *a lányt* 'the girl'), *szeretlek* 'I love you'. While this is unusual for Europe, it is by no means uncommon on a world-wide scale. There are languages with cross-referencing of the object in Africa (e.g. Swahili, Bantu, Polomé 1967: 110–126), the Caucasus (e.g. Georgian, Kartvelian, Vogt 1971: 79–87), Siberia (e.g. Chukchi, Chukotko-Kamchatkan, Kämpfe & Volodin 1995: 65–79), the Americas (e.g. Ojibwa, Algonquian, Bloomfield 1957: 44–50), and elsewhere (in brackets: example language, brief genealogical information, one source of many available).

In Hungarian and Uralic linguistics it is common to speak of "subjective conjugation" and "objective conjugation" in order to group the forms – these terms are little used for languages elsewhere in the world and Lotz (1962: 320 fn. 1) argues against them, but they will be used in the present paper in order not to deviate from common practice. The topic investigated concerns transitive verbs; for intransitive verbs obviously only the subject can be cross-referenced.

Within Uralic, marking of the object in the verb occurs, as is well known, in Mordvin, Ugric and Samoyedic, as repeatedly pointed out, e.g. by Comrie (1988: 466), and recently underlined by Janda, Laakso & Metslang (2022: 895). The remaining Uralic languages mark only the subject in the verb, for example Finnish: *rakastan* 'I love', *rakastat* 'you love', etc. Those Uralic languages which do mark the object in the verb differ considerably in what properties of the object they express more specifically: this may be person, number, definiteness or a combination of these – and a language may have to specify what counts as definite. In Mansi, for instance, the number of the object is marked in the verb, but not the person, see the table by Janda, Laakso & Metslang (2022: 897), and Khanty is similar in this respect. In Hungarian, in contrast, the number of the object is never expressed, but it is other properties which are relevant: person and definiteness.

Given this great typological variation within Uralic, various challenges arise for diachronic linguistics. It would be interesting to know how the systems of the daughter languages arose and what system should be reconstructed for Proto-Uralic. It has been pointed out recently by Aikio (2022: 18) that in fact we do not know yet whether Proto-Uralic had objective conjugation (and if so, how it was organized more specifically); opinions diverge on this (cf. Salminen 1996: 27), and it is also possible not to take sides (i.e. to remain agnostic – at least for the moment). The present paper will not clarify this reconstructional issue of Proto-Uralic. It will, however, seek to make a contribution on the history of the objective conjugation in one particular daughter language, Hungarian.

2. The starting point: some basic facts

It is first necessary to recall some basic facts. Most of these are well known, especially for readers acquainted with Hungarian linguistics, but a quick review is required, for it is these facts which serve as the starting point for what will come later.

The main point about the inflection of transitive verbs in Hungarian, with regard to the topic discussed, is that the cross-linguistically common number of six forms is doubled. Basically, if the object is a 3rd person and definite, the "objective forms" are used. If the verb is used intransitively, or if the object is not a 3rd person or indefinite, the "subjective forms" are used (unless the 1st person singular acts upon a 2nd person, see below). There is no need for the present investigation to dwell on further details, for example on what counts as definite.

As an example the verb *vár-ni* 'to wait' can be used. (Some languages require a preposition with this verb; for instance, English *wait* requires *for* or *on*. Hungarian syntax can treat the person or thing waited for as a direct object, in the same way as Italian *aspettare* 'to wait' or Russian *ždat'* 'to wait' do.) The present indicative of *vár-ni* has the following forms:

subjective	**objective**
vár-ok	*vár-om*
vár-sz	*vár-od*
vár-ø ("zero")	*vár-ja*
vár-unk	*vár-juk*
vár-tok	*vár-játok*
vár-nak	*vár-ják*

Hence *vár-ok* 'I wait, I wait for someone', *vár-om* 'I wait for her', etc. In addition, there is a thirteenth form for 1st pers. sg. acting upon 2nd person (of both numbers): *vár-lak* 'I wait for you'. Today this form is usually counted as an objective form as well, though Lotz (1962) has pointed out that it has also been classified as a subjective form (and he favours this view); there is no requirement here to take sides.

There is some allomorphy, so that, for instance, the suffix of the 2nd pers. sg. of the subjective conjugation has not only the shape *-sz*, but also *-l*, and actual forms often require connecting vowels and show assimilations. Most of such facts will not play any role in this investigation, but if they do, this will be mentioned. Note also that with regard to vowel harmony the example shows the back-vowel allomorphs – the allomorphs used with front-vowel stems will be addressed later (in Section 5).

3. Some steps towards analysis

The diachrony of Hungarian is a research area where much work has already been done. One way to approach this area is with the comparative method, and this may lead to a focus on Hungarian's closest relatives, the Ob-Ugric languages Mansi and Khanty – for arguments for a Ugric unity see Honti (1979: 7–19), Honti (1998a: 178–184), Honti (1998b: 353–355), Zhivlov (2023: 139). However, with regard to the objective conjugation comparison with Ob-Ugric turns out not to be very fruitful. These languages do have objective conjugation, but as already hinted at in Section 1 above, the Mansi and Khanty systems of objective verb forms are rather different from those of Hungarian. They express different categories and use different morphemes to a great extent. In fact, the relationship between Hungarian and Ob-Ugric, even though closer than any other relationship involving these languages, is more distant than might be thought, as has repeatedly been observed (e.g. by Honti 1979: 3). There is thus often a gap to bridge (so to speak) when seeking to investigate the prehistory of Hungarian.

Fortunately, historical linguistics provides not only the comparative method but also internal reconstruction as a means of inquiry. For the dualism of the comparative method and internal reconstruction see the standard handbooks on historical linguistics such as Campbell (1998); see now also the chapter on the topic by Holst (2023: 78–95) which makes use of Uralic examples to a greater extent than other general treatments.

The basic idea of internal reconstruction is to investigate only one linguistic system and to attempt to draw conclusions on the past in this way. The classic area where this can lead to results is morphophonology. For example, where *t* and *s* alternate in the morphology of a language, it is more likely that historically **t* > *s* occurred in part of the forms than the reverse process. In Finnish, for instance, *t* and *s* alternate in forms such as *käte-nä*, essive singular of 'hand', and *käsi* 'hand', nominative singular, and indeed in this instance *t* represents the older state; here internal reconstruction is corroborated by the comparative method. Another option for internal reconstruction is to investigate whether an older pattern with greater regularity can be suspected to have preceded the attested forms. For instance, Finnish *lapsi* ‘child’ has the partitive *las-ta*, and the latter form can be assumed to have earlier contained **ps*, which was simplified in the three-consonant cluster **pst*, compare also more regular nouns such as *kuusi* ‘spruce’, partitive *kuus-ta*, *nuoli* ‘arrow’, partitive *nuol-ta*.

Turning now to the Hungarian verb forms presented in Section 2, it is the latter option that will be pursued here: internal reconstruction by investigating whether an earlier state with more regularity may be detectable.

First, however, there is a simple observation which can even be called synchronic: the objective forms of the 2nd pers. pl. and the 3rd pers. pl. clearly contain a suffix *-já-* which is responsible for making them “objective”, and the suffix for the subject follows this *-já-*. It is possible to insert two additional hyphens in order to visualize the morpheme boundaries:

subjective	**objective**
vár-tok	*vár-já-tok*
vár-nak	*vár-já-k*

In the 2nd pers. pl. the suffix for the subject is the same in both forms: *-tok*. In the 3rd pers. pl. there is a deviation *-nak* vs. *-k*, but also in the past tense the subjective forms employ (after the connecting vowel) only *-k*: *vár-t-ak* ‘they waited’. The *-k* is, of course, the plural suffix.

The matter becomes slightly more demanding, and shifts from predominantly synchronic to diachronic matters, when the 3rd pers. sg. is drawn into the picture now:

subjective	**objective**
vár-ø	*vár-ja*

The objective form *vár-ja* contains a *-ja* which is suspiciously similar to the *-já-* just discussed, but not identical. The crucial difference lies in the different quantity (while the fact that the short *a* is rounded today is secondary). Internal reconstruction can inquire whether it is possible to unite *-ja* and *-já-*. This can be answered in the affirmative. After all, *fa* ‘tree’ has the plural *fá-k*, *sza* ‘mouth’ has the plural *szá-k* (today more often *száj*, pl. *száj-ak*, but these forms are more recent, Mátai 1994: 53), etc. In final position long **-á* and **-é* became short. (The accent is used here for indicating length in reconstructions as in the Hungarian orthography, even when a time is involved at which Hungarian was not yet written.) Perhaps the shortening is also revealed by the fact that the Finnish cognates have long vowels still today: *puu* ‘tree’, *suu* ‘mouth’ (even though the most influential current reconstructions posit disyllabic structures for Proto-Uralic, but see Holst 2014: 146 fn. 57). If the **á* was in medial position, its length was preserved, cf. *más* ‘other’ (with a suffix *-s*), Finnish *muu* ‘other’. Before the shortening discussed, certain inherited short vowels had been dropped in final position, cf. Hungarian *hal* and Finnish *kala* 'fish'. Given this background, it is obvious which interpretation of the 3rd pers. sg. forms makes sense and is even inevitable. In *vár-ja*, *-ja* is in final position (a consequence of the fact that the 3rd pers. sg. subject is not marked in any way), whereas in *vár-já-tok* and *vár-já-k*, *-já-* is in medial position (since suffixes for the subject follow). Clearly, *-ja* must go back to **-já*. This has in fact been known to previous researchers. For instance, Sárosi (2003a: 366) reconstructs **látjá* for today's *látja* 'he sees him'.

What follows is that *-já-* once existed in not only two, but even three forms: in the 2nd pers. pl. and the 3rd pers. pl., but also in the 3rd pers. sg. (of the objective conjugation).

4. The 1st person plural suffix *-juk*

The investigation will now proceed to a major point to be made in this paper. I checked whether the proposal that I will present below has already been made by other scholars, but I did not find it in Bárczi, Benkő & Berrár (1967), Benkő & Imre (1972), Vago (1980), Abondolo (1988), Mátai (1994), Szent-Iványi (1995) (earlier editions 1964, 1974), Bereczki (1998) (first edition 1982), Kenesei, Vago & Fenyvesi (1998), Bárczi (2001) (first published in Hungarian in 1963), Kiss & Pusztai (2003), nor in various other publications. (This list contains also publications aiming at synchrony, but nevertheless these were worth consulting since sometimes authors have generative analyses which mimic language history.) Hence it is well possible that the idea is new.

The issue concerns the 1st person plural (of the objective conjugation). This has the suffix *-juk*: *vár-juk*. At first glance it looks as if an *n* was missing in this form before the *-k* since the suffix of the corresponding subjective form is *-unk*. This would be weird since the normal state of affairs is that in objective forms something is added to the subjective form (*-já-*) and not removed from it, or both forms are of equal complexity (cf. *-k* and *-m* in the 1st pers. sg., *-sz* and *-d* in the 2nd pers. sg.). However, the matter of an allegedly "missing *n*" is only a delusion, as will become clear later. First, though, it should be observed that the suffix of the objective form *-juk* begins with a *-j-*, thus at its beginning it does exhibit something in addition to the subjective form. It can be wondered whether this *-j-* bears a relation to the *-já-* from the analyses above in Section 3. It would be consistent if the objective form originally had a structure of **-já-* followed by the suffix of the subjective form.

From a purely synchronic and descriptive point of view, one might notate the two suffixes of the 1st pers. pl. as follows, attempting to enter into the same column sounds that (possibly) correspond:

subjective:		*-u*	*n*	*k*
objective:	*-j*	*-u*		*k*

Historically, however, something important comes into play, and many readers will know what it is. Hungarian has been written for some centuries already, and it has undergone changes during this time. The earlier shape of the suffix of the 1st pers. pl. of the subjective conjugation (back-vowel allomorph) was not -*unk*, but -*muk*. This can be seen from the Halotti Beszéd where the suffix appears as -*muc* (with *c* due to Latin spelling), e.g. in *uogmuc*, *vog-muc* 'we are'. What then occurred was that a metathesis brought the nasal after the vowel and it was assimilated to the *k*, hence the nasal is today velar and no longer labial. In the same fashion, the front-vowel allomorph was -*mük* and became -*ünk*. In fact, -*muk* and -*mük* have rhyming parallels in -*tuk* and -*tük* for the 2nd pers. pl. (which later lowered their vowel, hence -*tok* and -*tök* today). For these older morpheme shapes see Sárosi (2003b: 166) and other sources.

The brief table comparing the two suffixes can thus be written again in a slightly modified way:

subjective:		-*m*	*u*	*k*
objective:	-*j*		-*u*	*k*

Instead of a weird "missing *n*", we have now a "missing *m*", and it looks as if we have not got much further. In a deductive manner, it would be possible to add *-*já*- and -*muk* in a tentative fashion, thereby arriving at *-*já-muk*. Three other forms of the objective conjugation (see Section 3) could serve as a model for positing this *-*já-muk*. This would lead to a third version of the table:

subjective:			-*m*	*u*	*k*
objective:	*-*j*	*á*	-*m*	*u*	*k*

However, the attested suffix is -*juk*, and if the positing of *-*já-muk* should be something more than the deductive speculation of a linguist, one would have to adduce a reason why *-*já-muk* should have been altered to -*juk*. To put it the other way round: is it conceivable that -*juk* had a predecessor *-*já-muk*? It seems as if the main obstacle is the **m*.

Interestingly, the problem can be solved. The key lies in taking into consideration what happens to Uralic **m* in Hungarian (and to Finno-Ugric **m* and Ugric **m*). This nasal is certainly stable in initial position, cf. cognates such as Hungarian *máj* and Finnish *maksa* 'liver', and under some other conditions. In intervocalic position, however, **m* is not stable at all in Hungarian. Scholars disagree on some particulars, but it is possible to investigate the question here briefly. Pertinent data are provided by Sammallahti (1988: 517), Bereczki (1998: 71), Honti (2013: 26–30), Zhivlov (2023: 140) and many other sources. In the following, cognates from Finnish are cited as quick reminders for each etymology unless a different language is stated (more cognates can be looked up in the standard handbooks), and for nominals occasionally stems or roots are added since these sometimes permit better comparisons than the nominatives.

A.) The most typical reflex of intervocalic *-*m*- is -*v*-:

Hungarian	**cognate**	
név, *neve*-	*nimi*, *nime*-	'name'
lé, *leve*-	*liemi*, *lieme*-	'broth'
hüvely	Komi *komel'*	'pod'
velő	*ydin*, *ytime*-	'marrow', Hung. root would have *-*v*-
szív	*sydän*, *sydäme*-	'heart'
jó	Mansi *jomas*	'good', compare Hung. root *jav*-
fű, *füve*-	Mansi *pom*, *pum*	'grass'

The last two etymologies are only of Ugric time-depth (Rédei 1988: 850, 879 respectively), but of course they illustrate the point as well since the Ob-Ugric languages preserve intervocalic *-*m*-. There are further examples.

B.) It is true that in a few instances -*m*- seems to occur in Hungarian:

Hungarian	**cognate**	
em-	*ime*-	'to suck'
eme	*emä*	'female' (or the like)

Yet these two cognate sets are problematic. The first one is onomatopoetic (or "expressive"), and the second one is a nursery word. It is well known that onomatopoetic words and nursery words are of reduced value for comparative purposes, see Campbell & Poser (2008: 196f.) on the former type of words and Campbell & Poser (2008: 198–200) on the latter type. This is not the place to enter discussions on the problematic words *szomorú* 'sad' (on which see recently Aikio 2014: 88f.), *homály* 'darkness', *kemény* 'hard', and possibly a few others. Note, however, that some other words cannot be counted since they contained a consonant cluster in Uralic, e.g. Hungarian *szem* 'eye', cognate with Finnish *silmä* 'eye'.

C.) A word that must be mentioned in this context, however, is this one:

Hungarian	**cognate**	
nyúl	Mordvin *numolo*	'hare'

In this instance (and there may be further ones) there even seems to be no reflex of intervocalic *-*m*- at all in Hungarian.

To sum up, the main reflex of intervocalic *-*m*- is undoubtedly -*v*-, there is no genuine reflex -*m*-, and there is the case of 'hare' yet to be interpreted.

Considering a bit of phonetic background knowledge, in my opinion the data can be explained best in the following way. It is unlikely that *-*m*- gives -*v*- directly since the two are phonetically too far apart. Rather, it seems that the process goes via an intermediate stage *-*w*-. A law **w* > *v* is posited for Hungarian anyway; this law can then be assumed to have occurred after *-*m*- > *-*w*- in the relative chronology. In fact precisely this intermediate stage *-*w*- has already been posited by Hajdú (1966: 100) and Bereczki (1998: 71), the reason being that it serves well to explain the nominatives of nouns such as *fű* 'grass'. Now attention must be drawn to the fact that the intermediate stage *-*w*- would also explain *nyúl* 'hare': in this etymon *-*w*- was possibly before a rounded vowel, cf. the Mordvin cognate, and there it was "absorbed" or "soaked up" in Hungarian and got lost. In all of the examples above which have -*v*- for *-*m*- it is *not* a rounded vowel which followed, and this constitutes further evidence for the hypothesis. What occurred in 'hare' subsequently was that the vowels contracted. As to the loss of **w*, from a typological point of view compare North Germanic, where **w* is lost before rounded vowels, but not before unrounded ones: English *wolf* – Icelandic *úlfur*, English *word* – Icelandic *orð*, but English *wind* – Icelandic *vindur*, English *wax* – Icelandic *vax* (same meanings in each pair).

Applying the hypotheses just laid out, the morpheme sequence *-*já*-*muk* would behave in a fashion parallel to that of 'hare' since the original intervocalic *-*m*- is followed by a rounded vowel in this form, **u*. This would give *-*já*-*wuk*, then a dropping of **w* would occur, and then contraction of the vowels. In the subjective forms, in contrast, the morpheme *-*muk* was usually after a consonant; hence **m* was not intervocalic, and was not shifted. It is thus indeed possible that *-*já*-*muk* gave -*juk*, or to state it from the opposite perspective, it is well possible that -*juk* goes back to *-*já*-*muk*.

If the reconstruction *-*já*-*muk* should be correct, this would have consequences for the reconstructed system. There would be a fourth form with *-*já*- which fits the three forms seen earlier in this investigation (in Section 3). The result can be summed up as follows:

3rd pers. sg.	*-*já*
1st pers. pl.	*-*já*-*muk*
2nd pers. pl.	*-*já*-*tuk*
3rd pers. pl.	*-*já*-*k*

This system is more regular and more agglutinating than the attested one. The analysis can go this far, but no further than that with regard to the remaining two forms. The first two objective suffixes, -*om* and -*od*, are certainly of a different nature and do not lend themselves to any interpretation involving *-*já*-. Historically they apparently correspond to Finnish -*n* and -*t* respectively, but this will not be pursued here in any detail. (It should be remarked that usually Hungarian *d* is from **nt*, not from **t*, but nevertheless the match of the morphemes is in my opinion obvious.) Note also the similarity of -*om* and -*od* to the corresponding possessive suffixes, cf. Rédei (1989: 195), Janhunen (2020: 390), Aikio (2022: 18).

5. The allomorphs used with front-vowel stems

Up to this point, the discussion has concentrated on back-vowel allomorphs. Since there is vowel harmony in Hungarian, front-vowel allomorphs should be addressed as well. These are the forms of the present indicative of *kér-ni* 'to ask, request':

subjective	**objective**
kér-ek	*kér-em*
kér-sz	*kér-ed*
kér-ø ("zero")	*kér-i*
kér-ünk	*kér-jük*
kér-tek	*kér-itek*
kér-nek	*kér-ik*

There is nothing remarkable to say about the subjective forms of *kér-ni*: if there is a back-vowel allomorph -*nak* with *vár-ni*, for instance, it is consistent to find a corresponding front-vowel allomorph -*nek*. (There are of course some suffixes with three allomorphs of which two are front-vowel allomorphs, e.g. -*ok*, -*ek*, -*ök*, but the forms with *ö* do not play any role for any point that is being made here.)

The objective forms of *kér-ni*, in contrast, are more interesting, and less easy to handle: some of them exhibit a shape which is not really expected when starting out from the back-vowel allomorphs. A confrontation of the suffixes yields the following (for the data in the left column cf. the paradigm of *vár-ni* in Section 2):

-*om*	-*em*
-*od*	-*ed*
-*ja*	-*i*
-*juk*	-*jük*
-*játok*	-*itek*
-*ják*	-*ik*

As can be seen, this is not purely variation by vowel harmony as it is known from other areas of Hungarian grammar. The first job will be to capture descriptively what in these data deviates from usual vowel harmony:

A.) As the counterpart to -*ja*, there is -*i* in the 3rd pers. sg., and *i* is not the vowel corresponding to *a*; furthermore a *j* is lacking in the suffix -*i*.

B.) As the counterpart to -*já*-, there is -*i*- in the 2nd pers. pl. and the 3rd pers. pl.; *i* is certainly not the vowel corresponding to *á* and the two do not even share the same quantity; furthermore, again *j* is lacking in the suffix -*i*-.

It must be concluded that a state of genuine vowel harmony was altered by secondary processes, and these destroyed the parallels to some extent. It is the challenge for the linguist to develop hypotheses on what may have occurred in language history.

In the possessive suffixes, a back-vowel allomorph *-ja*, seen e.g. in *a kar-ja* ‘his arm’, corresponds to the front-vowel allomorph *-je*, seen e.g. in *a kert-je* ‘his garden’. The derivative suffix *-i* which forms adjectives does not only occur with front-vowel stems, but also with back-vowel stems since *i* is a neutral vowel. Considering this, it would be regular for the verb forms if *-ja* once corresponded to an allomorph **-je* and if *-já-* corresponded to an allomorph **-jé-*, and conversely it would also be regular if *i* occurred in all forms.

The question is now what to reconstruct. It hardly makes sense to assume that *i* represents the older state because it is difficult to find reasons how this could have changed into *-ja* and even *-já-* (with length) in the forms of the left column. It is more promising to assume that the allomorphs *-ja* and *-já-* of the left column are old and that they had front-vowel counterparts **-je* and **-jé-*. There are a number of hints that this is the correct solution. One of these is constituted by the fact that the *j* is still present in the front-vowel allomorph of the 1st pers. pl. suffix *-jük*. Furthermore, in this way consistency is achieved with the allomorphs of the possessive suffixes of the 3rd pers. sg. which are *-ja* and *-je* and when followed by another suffix *-já-* and *-jé-*; conjugational suffixes marking person and possessive suffixes on nouns are interrelated in Hungarian (as in many languages). Finally, there is a strong argument from outside the present indicative which will be seen in Section 6 (when discussing the preterite).

There must then have been a way in which *i* developed in the forms of the right column. Theoretically, it would be possible to start either from **-je* or from **-jé-* with an attempt at an explanation. When starting from **-jé-*, one faces the problem of the non-matching vowel quantities in addition. When starting from **-je*, in contrast, there does not exist this problem of quantity. I would therefore like to take the latter path and suggest that **-je*, considering also that it was in an unstressed syllable, was assimilated to **-ji* and lost its **j*, yielding *-i*. Once this *-i* existed in the 3rd pers. sg., it could be transferred by analogy to the 3rd pers. pl., which therefore became *-i-k* (rather than earlier **-jé-k*), and soon afterwards also to the 2nd pers. pl., which therefore acquired the shape *-i-tek* (rather than earlier **-jé-tek*). It should be noted that natural ways of how analogy works are employed here: it is more natural that a singular form influences a plural form than vice versa, and more natural that a 3rd person form influences a 2nd person form than vice versa. Looking back, it turns out that it would have been a less workable idea to start from **-jé-* to derive *i* also because one might have ended up with having to posit less natural processes of analogy.

Now it has also become clear why the conspicuous discrepancy in vowel quantity between *-já-* in the left column and *-i-* in the right column exists. The ultimate cause lies in the fact that **-já* and **-jé* were shortened to *-ja* and *-je* respectively in word-final position, as discussed in Section 3 and acknowledged by researchers such as Sárosi (2003a: 366). After this had happened, it was possible for **-je* to be changed into *-i* and to spread from there by analogy. It will be noted that the intellectual edifice proposed here presupposes or implies a specific relative chronology of the events: first vowel shortening in final position, then the change of **-je* to *-i*, then analogical spread.

With regard to the 1st pers. pl. -*jük*, the following is a natural assumption. In the same way that -*juk* was traced back to *-*já*-*muk* in Section 4, -*jük* can now be assumed to go back to *-*jé*-*mük*: here, too, *-*m*- was intervocalic and therefore was shifted to *-*w*-, which was in turn dropped before the rounded vowel, and contraction of the vowels occurred.

A table at the end of Section 4 summarized what older shapes the considerations of Sections 3 and 4 yielded for the last four of the six objective verb forms. A similar table can now be given for the front-vowel allomorphs:

3rd pers. sg.	*-*jé*
1st pers. pl.	*-*jé*-*mük*
2nd pers. pl.	*-*jé*-*tük*
3rd pers. pl.	*-*jé*-*k*

Again, the first two objective suffixes, -*em* and -*ed*, are outside of the scheme.

6. Some glances at other tenses and moods

The treatment so far has focused on the present indicative. However, Hungarian has other tenses and moods. Practical surveys of the forms of *vár*-*ni* (which have been consulted for this study) are found in Collinder (1969: 399), Vago (1980: 50, 58) and elsewhere. Since the language is predominantly agglutinating, it should not be too harmful to have concentrated on the present indicative so far in this investigation – the results may be of a general validity despite the investigation being thus confined so far. Yet a few glances at the other tenses and moods will be given now – further research may go into greater depth.

The discussion will not concentrate on certain suffixes or allomorphs of them which are of hardly any relevance for the analysis of the objective conjugation, nor on some other details. For example, the preterite is exceptional in having -*m* also in the subjective form of the 1st pers. sg. Moreover, outside the present indicative -*l* is much more typical for the subjective form of the 2nd pers. sg. than -*sz*. (The verbs with 3rd pers. sg. in -*ik* are involved in these issues, too.) It cannot be clarified here why these facts are as they are, and discussing this would take the focus too far away from the prehistory of the objective conjugation which is the topic of the present article. The question that will be the guideline here is solely the one how the claims made in previous sections fare when confronted with the data from the other tenses and moods. In the following, again usually *vár*-*ni* will serve as the example verb.

Beside the present tense, the modern language has only one other tense, the preterite (when only counting synthetic forms, i.e. not counting the analytic future). The preterite has the following forms:

subjective	**objective**
vár-t-am	*vár-t-am*
vár-t-ál	*vár-t-ad*
vár-t-ø	*vár-t-a*
vár-t-unk	*vár-t-uk*
vár-t-atok	*vár-t-átok*
vár-t-ak	*vár-t-ák*
	vár-t-alak

A crucial point to be observed is that there is no *-j-* in the objective forms (and we will later see further forms to which this applies). Apparently there was an allomorph of **-já-* which was **-á-*; hence *-a* of the 3rd pers. sg. is from **-á*, and *-uk* of the 1st pers. pl. is from **-á-muk*. It must be pointed out now that the front-vowel stems do not use *i*, but they have forms such as *kér-t-e* in the 3rd pers. sg., *kér-t-étek* in the 2nd pers. pl., *kér-t-ék* in the 3rd pers. pl. The *-é-* involved here apparently bears the same relationship to the **-jé-* reconstructed in the previous section as the *-á-* bears to *-já-*. This confirms the reconstruction **-jé-*; here is the strong evidence announced in the previous section that the past tense has to offer for this reconstruction. There were thus four allomorphs: with and without **j*, with the back vowel **á* and with the front vowel **é*: **-já-*, **-á-*, **-jé-*, **-é-*. This is the same allomorphy as that which can be found with the corresponding possessive suffix. The suffix *-ük* of the objective 1st pers. pl., front-vowel allomorph, must be assumed to have come from **-é-mük*.

Another tense was the old imperfect, characterized by *-á-*, *-é-*. Collinder (1969: 399) gives the following forms (except for the thirteenth form, but for this cf. Lotz 1939: 144 who has *lát-á-lak* from *lát-ni* ‘to see’):

subjective	**objective**
vár-é-k	*vár-á-m*
vár-á-l	*vár-á-d*
vár-a	*vár-á*
vár-á-nk	*vár-ók*
vár-á-tok	*vár-á-tok*
vár-á-nak	*vár-á-k*
	vár-á-lak

Again it seems that allomorphs without *-j-* are involved. The conspicuous 1st pers. pl. in *-ók* seems to show a contraction similar to the ones already treated. The corresponding front-vowel allomorph is *-ők*. A different opinion is expressed by Szent-Iványi (1995: 89) who claims that forms such as *várók* and *kérők* are the plurals of the present participles *váró* and *kérő* – but this view would have to be justified in some way, and Szent-Iványi could not know yet the argumentation laid out in the present paper. In the 2nd pers. pl., the subjective form and the objective form are identical. In the modern language this tense is not used any longer.

The conditional has a suffix -*ná*-, -*né*-, related to the Finnish potential suffix -*ne*-. The Hungarian forms are:

subjective	**objective**
vár-né-k	*vár-ná-m*
vár-ná-l	*vár-ná-d*
vár-na	*vár-ná*
vár-ná-nk	*vár-nók*
vár-ná-tok	*vár-ná-tok*
vár-ná-nak	*vár-ná-k*
	vár-ná-lak

These forms differ from the imperfect forms solely by having an additional *n*. Consequently, in the 2nd pers. pl. again the subjective form and the objective form are identical with each other.

The modern language has undergone a change in the objective form of the 1st pers. pl., however, cf. Collinder (1969: 388): while there originally was -*nók* as the back-vowel allomorph and -*nők* as the front-vowel allomorph, the language nowadays has -*ná*-*nk* as the former allomorph and -*né*-*nk* as the latter allomorph. For the system this means that not only in the 2nd pers. pl. are the subjective form and the objective form identical with each other, but also in the 1st pers. pl. The relevant excerpt of the paradigm is thus today:

subjective	**objective**
vár-ná-nk	*vár-ná-nk*
vár-ná-tok	*vár-ná-tok*

It can be explained what happened. First of all, it is understandable why -*nók* and -*nők* were abandoned: they were too peculiar in the paradigm – especially after the imperfect with its -*ók* and -*ők*, which might have supported the survival of -*nók* and -*nők* in the conditional, had fallen out of use as a tense. The suffixes -*nók* and -*nők* were the only ones with the vowels *ó* and *ő*, while all other objective forms had *á* and *é*. What remains to be addressed is why precisely the forms which can be observed now arose, i.e. -*ná*-*nk* and -*né*-*nk*. Theoretically, -*nók* and -*nők* could have simply adapted their vowels to the rest of the objective forms, thus replacing them by *á* and *é* respectively. This would have yielded -*nák* and -*nék* respectively. However, such forms already existed: these are the forms of the 3rd pers. pl. A syncretism of the 1st pers. pl. and the 3rd pers. pl. – while being very typical for other languages such as modern German, for instance – is not typical at all for Hungarian. The only way out was a takeover from the subjective form. To be honest, the result is a bit peculiar as well, since now the conditional is the only part of the paradigm in which the suffixes of the objective forms of the 1st pers. pl. end in -*nk*. Otherwise, the sound sequence -*nk* is only known from subjective forms. However, at least it can be understood why the takeover took place. There was an example of a syncretism already at a very close position in the paradigm: in the 2nd pers. pl. the subjective form and the objective form were already identical with each other. This fact very probably favoured the solution that the language chose.

Finally, there are also imperative forms, but they do not lead to any new observation which could be supplied with an interesting comment here.

The discussions here have illustrated that the claims which were made in earlier sections about the diachronic background of the objective conjugation can be reconciled with all tenses and moods. In fact that was the purpose of the treatments in this section.

7. Further considerations

At the end of Section 4, the investigation arrived at a table showing four forms of the objective conjugation which had been reconstructed:

3rd pers. sg.	*-*já*
1st pers. pl.	*-*já-muk*
2nd pers. pl.	*-*já-tuk*
3rd pers. pl.	*-*já-k*

In Section 5 then it was argued that there were corresponding front-vowel forms as well: *-*jé*, *-*jé-mük*, *-*jé-tük*, *-*jé-k*. In Section 6 the opinion was expressed that there are also allomorphs without **j*. For simplicity's sake, the following discussion will speak only of the back-vowel allomorphs with **j*.

With the three plural forms involved, it is possible to speak of suffix chains: there is first *-*já*- (or an allomorph of this, of course) and then the suffix for the subject. It is easy to develop a reasonable hypothesis on the function of *-*já*-: apparently it indicated a definite object. The organization of the verb forms follows the pattern STEM – O – A (employing O for object and A for the subject of a transitive verb, as in Dixon 1994). This is the same order as, for instance, in Portuguese *lavá-lo-ei* ‘I will wash it’, or as in Bella Coola (Salishan, North America) *xłsx-c-s* ‘he dislikes me’ (form, segmentation and translation from Mithun 1999: 64).

But even in Hungarian itself we find a parallel. The suffix of the “thirteenth form” -*lak* has repeatedly been claimed, e.g. by Vago (1980: 58), to consist of the 2nd pers. sg. -*l* and the 1st pers. sg. -*k*. If correct, the order STEM – O – A would be present here as well. Two objections could be raised against this analysis of -*lak*, but both turn out not to be very strong. First, it could be argued that -*sz* should be expected to enter the form, not -*l*. However, -*sz* occurs only in the present indicative, and when considering all tenses and moods, and all inflectional classes, it turns out that -*l* is much more frequent than -*sz* and can be called the more “basic” allomorph. Hence the fact that it is -*l* which appears in -*lak* should not be surprising. Perhaps -*sz* is an innovation which gained ground only in certain forms of the present indicative. (The most probable source would then be dissimilation after a stem-final *l*, but we will not pursue this here any further.) Second, it can be pointed out that -*lak* serves not only to cross-reference an object in the singular, but also in the plural; this is why speakers have to add the pronouns *téged*(*et*) 'you (sg.)' or *titeket* 'you (pl.)' when wishing to specify number. It could be argued that with regard to number there is no complete match between the functioning of the *l* in the suffix -*lak* and of that in the suffix -*l*. The synchronic observation is correct, but for diachrony this is not an obstacle. As said, the system of the Hungarian objective conjugation never expresses the number of the object. It can very well be imagined that the form -*lak* arose with a meaning confined to an object in the singular, and only by a later change it came to subsume plural objects as well. Hence, both possible objections against the proposed analysis of -*lak* are not very strong. It can now be seen that the analysis of the forms with *-*já*- and the analysis of -*lak* match each other with regard to the order of the elements, STEM – O – A, and thereby support each other. (Perhaps it should be added for clarity's sake that there are languages with "objective conjugation" which use both STEM – O – A and STEM – A – O in the same paradigm, e.g. Greenlandic, Holst 2005: 87. There is no need for a system to be consistent in this respect.)

As remarked above, *-*já*- apparently indicated a definite object. Hence it could be translated into English as 'him, her, it'. It is legitimate to wonder whether *-*já*- once was a pronoun of the 3rd person meaning 'him, her, it' (and possibly also 'them'). If so, it was a pronoun in its accusative form, and if so, it must have been an independent word. In fact this idea has already been expressed by Hajdú (1966: 76); for a German passage with the same statement see Hajdú & Domokos (1987: 252). Perhaps this element, or perhaps to be more exact one of its allomorphs, was etymologically ultimately the same as the stem seen in *ez* 'this', *az* 'that', *itt* 'here', *ott* 'there', etc. Alternatively, there could be a relation to the pronoun *ő*, earlier with **s*-, see Honti (1984: 341f.), Kulonen (1993: 96).

Such an independent word must have entered the verb form in some way. A proposal shall be made here for how this may have happened. While we do not know whether Proto-Uralic marked the object in the verb (cf. Section 1, referring to Aikio 2022: 18), we do know for certain that it cross-referenced the subject. There is not a single daughter language of Proto-Uralic which does not mark the subject in the verb (Comrie 1988: 465). It can be imagined that there were sentences with verb forms with, for instance, a suffix for a 2nd person plural subject followed by an independent pronoun **já* 'him, her, it': verb stem + suffix *-*tVk* + **já* (*V* = unspecified vowel). The question is now how easy, or how difficult, it may be for the pronoun to change its position and move in front of the suffix expressing the subject, thereby becoming part of the verb form. What probably plays a role here is the language type: the more agglutinating a language is, the more easily it may undergo such a change. Clear morpheme boundaries should favour the possibility of the shift of position, and agglutination implies clear morpheme boundaries by definition.

In the 3rd person singular, the problem does not exist if this 3rd person singular does not have any affix for the subject – which is the case in Hungarian. Hence, the form *vár-ja* can be easily imagined to be from a former phrase: the form may be a simple univerbation of *vár* 'he waits' and the pronoun. The question arises for the other forms with *-*já*-, the three forms of the plural. I would now like to present the following table which reminds of the tables used for illustrating four-part analogy; I intentionally leave one position open and only write X there:

3rd pers. sg.	*vár*	*vár-ja* (< former phrase)
2nd pers. pl.	*vár-tok*	X

The question is what form X four-part analogy would produce. Interestingly, there are two possible solutions. It is obvious that X must contain a morpheme corresponding to *-tok* and a morpheme corresponding to *-ja*. However, the table does not predict *in which order* these two morphemes might occur. In the Hungarian of today the solution is, as we know, *vár-já-tok*, with *-já-* first and *-tok* second, but from a general point of view there is no need for this order. It can be suspected that analogical processes can swap the order of morphemes: while an earlier stage of a language has one of the two possible solutions for the problem, analogy introduces the other one. This is a procedure that could be employed for arguing that a pronoun **já* was once found outside the Hungarian verb forms and then was carried into them. A reversal of morpheme order is not unknown to the history of Hungarian: while postpositions show remnants of an older order case + possessor in forms such as *mell-ett-em* 'next to me', the modern order is possessor + case as in *mell-em-en* 'on my breast'.

Nevertheless, it remains unclear with what ease, or difficulty, agglutinating languages (or more or less agglutinating ones) can swap the order of morphemes in a form. Moreover, it must not be forgotten that there are the forms in *-Vm* and *-Vd* of the objective conjugation which express the 1st pers. sg. and the 2nd pers. sg. respectively. These forms are not involved in the discussion just presented, and they are purely objective forms which differ from the corresponding subjective forms in a fundamental way which has nothing to do with morpheme order and changes therein. Given this, it remains unclear whether an earlier stage of Hungarian can be reconstructed without the objective conjugation.

At present, one must be satisfied with the claims, hypotheses, results, and argumentations that the present article has presented (and with those that are found in earlier work). Possibly future research can return to them and add something meaningful to them. The objective conjugation is, and remains, an interesting area of research.

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