

Null pronominal objects in Hungarian: A case of exaptation

Katalin É. Kiss*

Research Institute for Linguistics of the Hungarian Academy of Sciences, and Department of Linguistics, Pázmány Péter Catholic University, Budapest, Hungary

The paper argues against the wide-spread view that assumes a direct correlation between object–verb agreement and object pro-drop in Hungarian. Whereas object–verb agreement has been present in Hungarian since the first written sources, and can be traced back to Proto-Ugric and even Proto-Uralic, object pro-drop will be shown to be a sporadic phenomenon in Old Hungarian, spreading in Middle Hungarian, and becoming general only in the twentieth century. Recent results concerning the evolution of object–verb agreement also argue against its direct relation to object pro-drop. Object-agreement morphemes evolved from topic-doubling pronouns, and originally they encoded the topicality of the object in an SOV sentence. The present function of object–verb agreement is due to iterated exaptation. When the evolution of topic movement rendered its topic-marking role redundant, it was reanalysed as a marker of the definiteness of the object, and when the evolution of a system of articles rendered its definiteness-marking role redundant, it assumed the function of licensing object pro-drop.

Keywords: object pro-drop; object-verb agreement; Proto-Uralic; Old Hungarian; exaptation

1. The claim

It is a generally accepted view both in Hungarian historical linguistics and in Uralic comparative linguistics that object–verb agreement, the so-called “objective” or “definite” conjugation, arose as a means of representing the object in the sentence, i.e., as an alternative to a phonologically salient object pronoun. In other words, the definite conjugation evolved as the licenser of object pro-drop. This paper will claim on the basis of historical evidence that this view cannot be correct. The definite conjugation has been present in Hungarian since the earliest surviving documents (in fact, it is likely to have originated in Proto-Uralic), whereas object pro-drop is a comparatively recent phenomenon, sporadically present in Old Hungarian, spreading gradually only since the Middle Hungarian period. It will be argued that Hungarian object pro-drop represents a case of exaptation. As suggested by Marcantonio (1985), object–verb agreement originally encoded the topic role of the object; then, after Proto-Hungarian had developed a topic movement rule, it came to mark the definiteness of the object.

*Email: ekiss@nytud.hu

It was only after Old Hungarian had evolved a definite and an indefinite article that it found its present-day function, the licensing of object pro-drop.

The paper is structured as follows: Section 2 briefly introduces the Hungarian definite conjugation and object pro-drop, and the standard views about their history and alleged co-evolution. Section 3 presents statistical data refuting the generally accepted theory of their direct correlation. Section 4 outlines an alternative route for the evolution of the definite conjugation, which is not related to object pro-drop. Section 5 concludes that object pro-drop arose owing to two shifts in the function of the definite conjugation, i.e., it represents a case of exaptation.

2. The definite conjugation and null pronominal objects

Hungarian allows not only null pronominal subjects, but also singular null pronominal objects. Their licensing is related to the so-called objective, or definite, conjugation, encoding the presence of a definite object.

The Hungarian verb has two paradigms in every tense and mood: a ‘subjective’, or ‘indefinite’ conjugation, used with intransitive verbs as well as transitive verbs taking an indefinite object, and the ‘objective’, or ‘definite’ conjugation, used in the presence of a definite object. Compare:

| | |
|---|---|
| (1) a. Subjective conjugation: | b. Objective conjugation: |
| én látok (valakit) | én látom Pétert |
| I see-INDEF.1SG someone-ACC | I see-DEF.1SG Peter-ACC |
| te látsz (valakit) | te látod Pétert |
| you _{SG} see-INDEF.2SG someone-ACC | you _{SG} see-DEF.2SG Peter-ACC |
| ő lát (valakit) | ő látja Pétert |
| (s)he see-INDEF.3SG someone-ACC | (s)he see-DEF.3SG Peter-ACC |
| mi látunk (valakit) | mi látjuk Pétert |
| we see-INDEF.1PL someone-ACC | we see-DEF.1PL Peter-ACC |
| ti láttok (valakit) | ti látjátok Pétert |
| you _{PL} see-INDEF.2PL someone-ACC | you _{PL} see-DEF.2PL Peter-ACC |
| ők látnak (valakit) | ők látják Pétert |
| they see-INDEF.3PL someone-ACC | they see-DEF.3PL Peter-ACC |

If the verb is in the definite conjugation, and the sentence contains no overt object, a third person singular null pronominal object is assumed, e.g.:

| | | |
|----------------------|---------------------------|--------------------------|
| (2) Ismerem | <i>PRO_{subj}</i> | <i>PRO_{obj}</i> |
| know-PAST-DEF.1SG | [I] | [(s)he/it-ACC] |
| ‘I know him/her/it.’ | | |

Plural pronominal objects cannot be dropped, obviously because their [plural] feature cannot be reconstructed from the verbal suffix.¹ Cf.

¹ Hungarian pronouns are not marked for gender, hence the verbal agreement suffix is not expected to encode gender features.

- (3) a. A fiú_i megérkeze-tt. Felismer-t-em *pro*_i.
 the boy arrive-PAST.INDEF.3SG recognize-PAST-DEF1.SG [him]
 ‘The boy arrived. I recognized him.’
- b. A fiúk_i megérkez-t-ek. Felismer-t-em *őket/*pro*_i.
 the boys arrive-PAST-INDEF.3PL recognize-PAST-DEF1.SG them
 ‘The boys arrived. I recognized them.’

In fact, we do find plural null pronominal objects in the second conjuncts of coordinate sentences, or in answers to yes-no questions. They are allowed if their antecedent is an object in the previous clause, as well. These cases, however, involve VP-deletion (with the V raised out of the VP into T), which can affect definite and indefinite objects and non-object complements alike. Cf.

- (4) a. Az ismerőse-i-m-et keresem, de nem [TP talál-om [VP 0]]
 the acquaintance-PL-1SG-ACC seek-DEF.1SG but not find-DEF.1SG
 ‘I’m looking for my acquaintances but I do not find [them].’
- b. Ismerősöket keresek, de nem [TP találok [VP 0]]
 acquaintance-PL-ACC seek-INDEF-1SG but not find-INDEF.1SG
 ‘I’m looking for acquaintances but do not find [any].’

Interestingly, 1st and 2nd person objects do not elicit the definite conjugation:

- (5) János látott engem / téged / minket / titeket.
 John see-PAST.INDEF.3SG me / you_{SG}-ACC / us / you_{PL}-ACC
 ‘John saw me/you_{SG}/us/you_{PL}.’

Actually, the verb agrees with a second person object, as well, if the subject is first-person singular. Its suffix *-lak/lek* (comprising *-l-*, an allophone of the second person indefinite agreement marker, and *-k*, the first person indefinite agreement marker) is not part of either the definite or the indefinite conjugation. If a verb bearing a *-lak/lek* suffix is not accompanied by an overt second person object, a null singular second person pronominal is assumed (6a). The plural second person object pronoun cannot be dropped (6b).

- (6) a. Látlak *pro*.
 see-2OBJ.1SG [you-ACC]
 ‘I see you.’
- b. Ne búj-ja-tok el! Látlak titeket/**pro*.
 not hide-IMP-2PL PRT see-2OBJ.1SG [you_{PL}-ACC]
 ‘Don’t hide! I see you_{PL}.’

In É. Kiss (2005), the lack of object–verb agreement in case of a third person subject and a first or second person object, and in case of a second person subject and a first person object is derived from the so-called Inverse Agreement Constraint, which blocks agreement if the object is more prominent in the hierarchy ‘speaker participant (first person) > non-speaker participant (second

person) > non-participants (third person).² What is important from the present point of view is that the lack of verbal agreement with second and first person objects also plays a role in the reconstruction of null pronominal objects: if a transitive verb is in the indefinite conjugation, and has no visible object, a null first or second person singular object is assumed:

- (7) a. Felismer-sz *pro*_{subj} *pro*_{obj}?
 recognize-INDEF.2SG [you_{SG}] [me]
 ‘Do you recognize me?’
- b. Felismer-t-ek *pro*_{subj} *pro*_{obj}?
 recognize-PAST-INDEF.3PL [they] [me/you_{SG}]
 ‘They recognized me/you.’

Thus, as a combined effect of the definite conjugation and the Inverse Agreement Constraint, contextually salient singular pronominal objects (whether first, second, or third person) need not be spelled out in present-day Hungarian; they can be reconstructed from the verbal suffix.

The crucial element in the licensing of null pronominal objects is the definite conjugation. The standard view in Hungarian synchronic syntax is that the definite paradigm involves both an object agreement morpheme and a subject agreement morpheme, even if in first and second person singular they are represented by a single portmanteau morpheme (see Bartos 2000; Rebrus 2000). Observe the definite conjugation of the verb *ír* ‘write’. The object agreement morpheme *-j(a)* is sandwiched between the verbal stem and the subject agreement suffix.

- | | | | | |
|-----|----------------|-----------------------|------------------|---------------------|
| (8) | <i>ír-om</i> | ‘[I] write [it]’ | <i>ír-j-uk</i> | ‘[we] write [it]’ |
| | <i>ír-od</i> | ‘[you] write [it]’ | <i>ír-já-tok</i> | ‘[you] write [it]’ |
| | <i>ír-ja-0</i> | ‘[(s)he] writes [it]’ | <i>ír-já-k</i> | ‘[they] write [it]’ |

Historical linguists segment the suffixes of the definite paradigm in the same way, i.e., diachronic evidence also supports the correctness of this analysis. Object–verb agreement is present in several branches of the Uralic language family, among them the Ob-Ugric Khanty and Mansi, as well as Mordvin, Mari, and various Samoyedic languages – hence it is believed that the roots of the objective conjugation originated in Proto-Uralic.³ Finno-Ugric/Uralic comparative linguist, including Szerebrennyikov (1956), Hajdú (1966), Mikola (1966), Honti (1984, 1995, 1996, 2009), Rédei (1962), Csúcs (2001), and Havas (2004), have traced back the segments of the definite suffixes to various Proto-Uralic pronominal elements. Honti (1984, 341–346) has derived the *-jV-* segment of the

²The Inverse Agreement Constraint is attested, among others, in the East Siberian Chukchi, Koryak, and Kamchadal (see Comrie 1980, and Bobaljik and Branigan 2006).

³Keresztes (1999), however, claims that the current morphological form of the Mordvin definite conjugation is an internal development, and this may be the case in other Uralic languages, too.

definite paradigm from a Proto-Uralic *sV third person object pronoun through a series of independently motivated sound changes, i.e., the definite conjugation is likely to have arisen by the agglutination of an object pronoun (plus a subject pronoun) to the verbal stem.

Uralists also share the view that the agglutination of the object pronoun to the verb made the presence of another object pronoun superfluous; that is, the definite conjugation and object pro-drop developed simultaneously; they represent two sides of the same coin – see, among others, Janhunen (1982, 35), Honti (1996), and Kulonen (1999, 63–71). This view, however, cannot be correct. In present-day Hungarian – similar to present-day Khanty and Mansi – the objective conjugation indeed often goes together with object pro-drop, but this was not the case in Old and Middle Hungarian.

3. The independence of object–V agreement from object pro-drop

In the first surviving Hungarian document, *Halotti Beszéd és Könyörgés* ‘Funeral Sermon and Prayer’, written (or copied) between 1192 and 1195, we attest two full-fledged verbal paradigms in all tenses and moods, and the suffixes of the indefinite and definite conjugations are essentially the same as they are today. Observe the first sentence of the text: the main clause contains a second person plural verb in the definite conjugation (agreeing with the clausal object), and the subordinate clause contains a first person plural verb in the indefinite conjugation:

- (9) Latiatuc feleym zumtuchel mic vogmuc.
 see-DEF.2PL friend-PL-1SG eye-2PL-with what are-1PL
 ‘Do you see, my friends, with your eyes what we are?’

The 50-clause text contains six third person singular pronominal objects, but no obvious case of object pro-drop, i.e., the definite conjugation does not make overt pronominal objects superfluous. For example:

- (10) Heon tilutoa wt ig fa gimilce tvl.⁴
 only enjoin-PAST-DEF3.SG him one tree fruit-3SG-from
 ‘[He] only enjoined him from the fruit of one tree.’

The following construction raises the possibility of a null pronominal object:

⁴The following instance of a null object represents a case of VP-deletion of the type illustrated in (4a,b):

- (i) Hadlauh choltat teremteve istentvl.
 hear-PAST-DEF.3SG death-3SG-ACC creating God-from
 ge feledeve
 but forget-PAST-DEF.3SG
 ‘[He] heard his death from Creating God, but forgot [it].’

(Funeral Sermon and Prayer 1192–95)

- (11) Hug es tiv latiatic szumtuchel. isa es num igg
 as also you see-DEF.2PL eye-2PL-with surely even not one
 ember mulchotia ez vermut.
 man miss-POSSIB-DEF.3SG this pit-ACC
 ‘As also you can see with your eyes, not even one man can miss this pit.’

From a lexical-semantic perspective, the verb *latiatic* ‘see’ is the main predicate, which selects an object clause. Clausal objects count as definite in Hungarian, and elicit the definite conjugation, as is attested in (11). Syntactically, however, the object clause is construed as the main clause in (11), therefore, the object of the verb *latiatic* ‘see’ can be a null pronominal coindexed with the main clause.

The first clear case of a null object pronoun occurs in *Ómagyar Mária-siralom* ‘Old Hungarian Mary’s Lament’ (1300):

- (12) Walasth vylagum tul sydou fyodumtul *pro*
 separate-INDEF.3SG world-1SG from Jew-NOM son-1SG-from [me]
 ‘The Jew separates [me] from my world, from my son.’

The verb in (12) is transitive, hence a covert *pro* object must be attributed to it, and it is in the indefinite conjugation, hence its object must be first or second person (the context suggests the former). Notice that in this case it is the lack of object agreement on the verb that indicates the presence of the first person object, i.e., the null object cannot be identified with a morpheme agglutinated to the verb.

The first clear cases of object pro-drop licensed by the definite conjugation occur in Königsberg Fragment, a 1350 copy of an earlier text.

- (13) vleben tart chudaltus fiot.
 lap-3SG-in hold-INDEF.3SG wonderful son-ACC
 furiscte musia. etety ymletí
 bathe-DEF.3SG wash-DEF.3SG feed-DEF.3SG nurse-DEF.3SG
 ‘She holds a wonderful son on her lap. She bathes [him], washes [him], feeds [him], nurses [him]’

In the following sentence of Königsberg Fragment, the third person object pronoun is inserted above the line, which may indicate the scribe’s uncertainty whether or not it could be omitted:

- (14) Tudyuc latíuc ^{evt} scuz lean nac
 know-DEF.1PL see-DEF.1PL her virgin maid for
 ‘We know, see her as a virgin maid.’

The first book-length Hungarian text, *Jókai Codex*, written around 1370 and copied in 1448, displays sporadic pro-drop. For example:

- (15) Es azert ewele kyuanuala zolnya: Azert nemy haladek
 and therefore he-with wish-PAST-3SG speak-INF as some delay
 leuen: legottan masoczor es harmaczwr hyua:
 being immediately 2nd-time and 3rd-time called-DEF.3SG
 ‘And therefore he wished to speak with him. As there was some delay,
 he called [him] for the second time and third time’

The impression that object pro-drop is rare in Jókai Codex is confirmed by statistical data derived from a dictionary processing the vocabulary of the codex, specifying the occurrences and the morphological structure of each word (Jakab 2002). The codex contains 98 occurrences of the overt singular object pronoun *őtet* (spelled as *ewtet*). The plural object pronoun *őket* (spelled as *ewket/ewkewt*) occurs 19 times - that is, there are about five times as many singular third person object pronouns as plural ones. The number of singular dative 3rd person pronouns is only about 2,5 times as many (107) as the number of plural third person dative pronouns (42). As for nominative pronouns, the singular third person pronoun occurs 36 times, and the plural one occurs nine times, i.e., in their case the singular: plural proportion is 4 : 1.⁵ If singular third person pronominal objects had been affected by extensive pro-drop, the singular-plural proportion would have been smaller than it is in the case of dative and nominative pronouns, whose singular and plural variants are affected by pro-drop identically (in the case of datives, neither singulars, nor plurals can be dropped, whereas in the case of nominative pronouns, both of them can).

The proportion of nominative and accusative pronouns is also relevant. Among the plural third person pronouns, where only the nominative ones could be dropped, there are nine nominative and 29 accusative pronouns, i.e., the nominative: accusative proportion is $9:29 = 0,31$. Among the singular third person pronouns, where pro-drop could, in principle, affect nominative and accusative pronouns alike, there are 36 nominative and 98 accusative pronouns, i.e., the singular: plural proportion is $36:98 = 0,367$. If we expect the same proportion among singular pronouns as attested among plural ones, then we should assume 116 singular accusative pronouns, i.e., roughly 20% of the singular accusative pronouns must be phonologically null.

In the first surviving Hungarian translation of the Gospels, prepared between 1416 and 1435, preserved in Munich Codex (1466), the number of overt third person singular accusative pronouns is not much smaller than it is in Luther's German translation. In the latter, Matthew's Gospel contains 156 singular accusative pronouns (134 *ihn* and 22 singular accusative *sie*), whereas in the Hungarian translation their number is 137. The comparison of subsequent

⁵The pronoun *ő(k)* ‘he(PL)’ is mainly used to refer to [+human] referents; [-human] referents are usually referred to by the demonstrative *az* ‘that’. Since *az* has several functions, its pronominal uses cannot be counted automatically; therefore I ignore them.

translations of Matthew's Gospel shows a slow but fairly gradual decrease of overt third person singular accusative pronouns:⁶

- (16) The number of overt 3SG object pronouns in subsequent translations of Matthew's Gospel

| | | |
|--|-----------------|-----|
| Munich Codex | (1416–35/1466): | 137 |
| Gábor Pesti: Novum Testamentum | (1536): | 124 |
| Gáspár Károli's translation | (1590): | 108 |
| György Káldi's Vulgata translation | (1626): | 117 |
| Gellért Békés & Patrik Dalos's translation | (1950): | 19 |

The slow decrease of overt singular third person accusative pronouns – and the slow increase of their null equivalents – in the fifteenth to seventeenth centuries, i. e., in the late Old Hungarian and the Middle Hungarian periods, had apparently speeded up by the middle of the twentieth century. So as to be able to estimate when the use of null singular object pronouns became general, I examined the proportion of overt singular and plural third person object pronouns in Modern Hungarian texts from the Hungarian Historical Corpus <http://www.nytud.hu/hhc/>. The corpora examined include all the texts of the corpus dated from 1775–1800, 1875–1900, and 1975–2000. Eventually, I compared the proportion of overt singular and plural object pronouns in Jókai Codex, subsequent translations of Matthew's Gospel, and the corpora representing subsequent phases of Modern Hungarian. The changing proportion of overt singular and plural pronominal objects, i. e., the decrease of singulars, is shown first numerically (17), then graphically (Figure 1).

- (17) The proportion of overt singular and plural objects pronouns

| | SINGULAR/PLURAL |
|-------------------------------|-----------------|
| Jókai Codex (1400): | 98 / 19 |
| Munich Codex (1450): | 137 / 35 |
| Gábor Pesti' Matthew (1536): | 124 / 43 |
| Károli's Matthew (1590): | 108 / 48 |
| Káldi's Matthew (1626): | 117 / 41 |
| corpus 1775–1800: | 116 / 108 |
| corpus 1875–1900: | 1171 / 915 |
| corpus 1975–2000: | 1317 / 2621 |
| Békés-Dalos's Matthew (1951): | 19 / 49 |

I conclude that the assumption according to which the definite conjugation in Hungarian has always served the purpose of licensing null pronominal objects cannot be right. Whereas the definite conjugation can with certainty

⁶The sixteenth century abounds in Hungarian Bible translations. Since they are very close in time, I have only compared the best-known translations. There are new Bible texts from the twentieth century, as well, but Békés and Dalos's translation is the only one that is completely new; the rest are modernized versions of old translations.

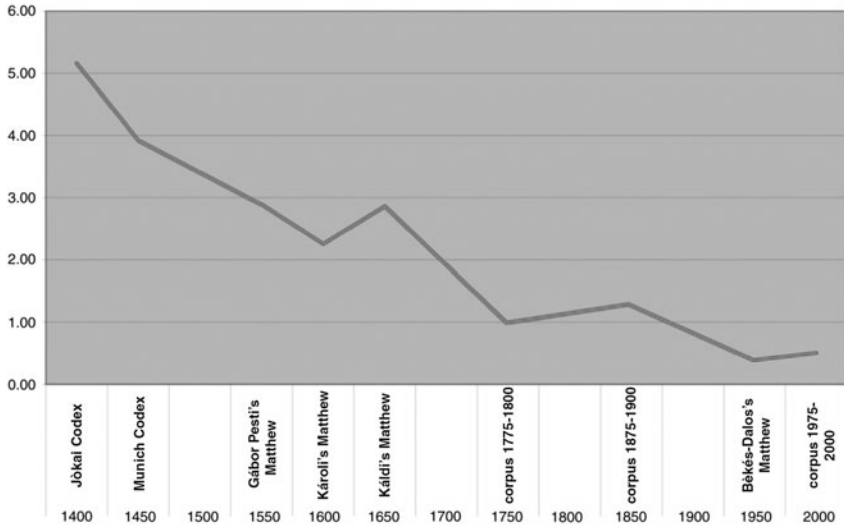


Figure 1. The proportion of 3rd person singular/plural object pronouns.

be traced back to the period of the Ugric unity (before 500 BC), and is likely to have originated in Proto-Uralic (before 3000 BC), null pronominal objects are attested in Hungarian only sporadically in the Old Hungarian period (before 1526 AD), and they are rare in Middle Hungarian texts, as well.⁷ They seem to have become general only in Modern Hungarian (after 1772), particularly in the twentieth century.

There is also a further obvious argument against the view that agreement morphemes agglutinated to the verb stand for overt pronouns, thereby making their spell-out unnecessary: as is well-known, not all languages displaying subject–verb agreement license subject pro-drop.

If the original function of the Hungarian definite conjugation was not the substitution of overt accusative pronominals, then the question arises what purpose it served.

4. The function of object–verb agreement in Proto-Hungarian

General linguistic considerations formulated in Givón (1976), facts of the sister languages of Hungarian (Dalrymple and Nikolaeva 2011; Marcantonio 1985; Nikolaeva 1999, 2001), as well as certain Old and Modern Hungarian phenomena

⁷ The fact that the historical corpus only contains written texts may somewhat distort the picture. My impression is that the proportion of null pronominals is higher e.g. in Middle Hungarian private letters, which were often dictated, i.e., closer to live speech, than in religious texts, i.e., the decreasing of the proportion of overt pronominals may have started earlier in the spoken language than in the written genres.

suggest that the function of object–verb agreement in Proto-Hungarian (and also in Proto-Ugric) must have been the encoding of the topic function of the object (cf. É. Kiss 2011).

According to Givón (1976), object–verb agreement – similarly to subject–verb agreement – represents grammaticalized topic–verb agreement, i.e., both subject agreement morphemes and object agreement morphemes derive from topic doubling pronouns. His claim is based on Creol and child language data, as well as on various Bantu languages, where object–verb agreement is clearly dependent on the topicality of the object. In some Bantu languages, the topicality requirement has been reinterpreted as a definiteness requirement, i.e., they display definite-object–verb agreement. Further evidence for Givón’s claim is provided by the crosslinguistic generalization that object–verb agreement is constrained by the same implicational hierarchy that constrains topic selection (i.e., if in a language [-human] constituents can be topicalized/agree with the verb, [+human] constituents also can; if [-definite] constituents can be topicalized/agree with the verb, [+definite] constituents also can, etc.).

Marcantonio (1985) adopted Givón’s theory in order to account for the evolution of object–verb agreement in Proto-Ugric, the ancestor of Hungarian, Khanty (Ostyak), and Mansi (Vogul), and in Proto-Hungarian. Proto-Ugric and early Proto-Hungarian are likely to have been SOV languages with the subject functioning as topic, and the object functioning as focus – as is the case in present-day Khanty and Mansi. According to Marcantonio, V-object agreement was used in OSV sentences to mark the fact that the topic function is associated with the object (instead of the subject). She argues for a three-stage development. At stage one, preserved in various Mansi dialects, topicalized objects are marked by a nominal suffix, which is reinterpreted in some dialects as the marker of definite objects (cf. Collinder 1960). At stage two, differential object marking is generalized to all objects, and the topic function of the object is encoded by V-object agreement. This is the stage preserved in some Khanty dialects (although grammatical descriptions tend to misinterpret it, claiming that verbal agreement with definite objects in Khanty is optional (cf., e.g., Steinitz 1950, 75). At stage three, represented by Hungarian since the beginning of its documented history, topical object–verb agreement is reinterpreted as definite object–verb agreement, and topic function is encoded by topic movement. Actually, Old Hungarian still preserves sporadic relics of the previous stage, as well, i.e., occasionally we find examples where a topicalized indefinite accusative relative pronoun elicits the definite conjugation (18a),⁸ and a non-topic definite object elicits the indefinite conjugation (18b).

- (18) a. Saul keral kít isten meg vetí az engedetlensegert
 Saul king whom God PRT detest-DEF.3SG the disobedience-3SG-for
 ‘King Saul, whom God detests for his disobedience’
 (Guary Codex (before 1495), p.19)

⁸ A relative phrase can be preceded by a topic, hence it is claimed to be preposed into Spec, TopP (instead of Spec, CP) by Kenesei (1994).

archaic constructions of Old Hungarian, suggests that the Proto-Hungarian sentence was also SOV, where object–verb agreement marked the secondary topic role of the object. This hypothesis is confirmed, among others, by the fossilized Inverse Agreement Constraint, blocking agreement with first and second person objects if the subject is third person, and with first person objects if the subject is second person (cf. É. Kiss 2005). The Inverse Agreement Constraint is a totally unmotivated, ad hoc phenomenon as a morphological restriction. Its motivation becomes transparent if it is interpreted as a grammaticalized constraint restricting topic selection in a strictly SOV sentence. What it blocks is that the secondary topic (the object) be more ‘topical’, more centrally involved in the given event than the primary topic (i.e., the subject). An object more centrally involved in the event than the primary topic can only be construed as a focus. That is, the Inverse Agreement Constraint is the grammaticalization of an inverse topicalization constraint.

5. From old Hungarian to modern Hungarian

If the hypothesis put forth in section 3 is tenable, and the Hungarian definite paradigm evolved from topic-*doubling* pronominal objects agglutinated to the verb, then object–verb agreement never involved the vacating of the object position, hence the sparsity of null pronominal objects in Old Hungarian is not surprising. What needs to be explained is why object pro-drop started spreading in the Middle Hungarian period, and why the dropping of singular third person pronominal objects had become general by the middle of the twentieth century.

Apparently, exaptation, i.e., a shift in the function of object–verb agreement, took place, and what is more, it took place repeatedly. Linguistics has borrowed the term ‘exaptation’ from biology; it means the kind of adaptation where the function currently performed by the adaptation is different from the function performed while the adaptation evolved under earlier pressures. Object–verb agreement originally served to mark the secondary topic role of the object by an object pronoun cliticized to the verb. This function must have changed first in the late Proto-Hungarian period, after Proto-Hungarian had developed morphological object marking, and ceased to be a strictly SOV language, and, consequently, the Hungarian sentence developed a functional left periphery different from the thematic domain. With the appearance of a topic movement rule, which could target subjects, objects, and oblique complements alike, the original function of object–verb agreement, marking the topicality of the object, became redundant. Object–verb agreement did not disappear but assumed a new role: the marking of the definiteness of the object. At that time, Hungarian had already given up the Ugric way of marking definiteness via possessive agreement suffixes, but the system of marking +/– definiteness by articles had not developed yet. The fact that definiteness marking was more urgent in the case of objects than in the case of subjects may be related to the fact that the definiteness feature of the internal argument also affects aspectual interpretation.

By the late sixteenth century, however, Hungarian had evolved both a definite and an indefinite article. Whereas the translation of the Lord's Prayer in Munich Codex from the first half of the fifteenth century contains no definite article yet, its translation in the Károli Bible from 1590 has six definite articles (and three more in the last sentence added from the Greek text). The emergence of the definite article rendered the definite conjugation redundant again; and it has again found a new function: licensing singular null pronominal objects. This is its primary function in Modern Hungarian. Now singular pronominal objects are only pronounced if they are associated with focus stress and/or contrastive intonation, or if they host a clitic.

6. Summary

This paper has argued against the generally accepted view that assumes the coevolution of object–verb agreement and object pro-drop in Hungarian. It has been claimed that object–verb agreement arose much earlier; it has been present in Hungarian since the first written documents; in fact, it can be traced back to Proto-Ugric and presumably even to Proto-Uralic. Object pro-drop, on the other hand, is barely attested in Old Hungarian documents; it started spreading in Middle Hungarian, and it has become general only in the Modern Hungarian period, mainly in the twentieth century. Recent results concerning the evolution of object–verb agreement also refute the claim that object pro-drop is a direct consequence of it. Object-agreement morphemes evolved from topic-doubling pronouns, and originally encoded the topicality of the object in an SOV sentence. The present function of object–verb agreement is due to iterated exaptation. When the evolution of topic movement rendered its topic-marking function redundant, it was reanalysed as a marker of the definiteness of the object, and when the evolution of a system of articles rendered its definiteness marking role redundant, it assumed its present function, the licensing of object pro-drop.

Acknowledgements

This paper has been written in the framework of the Hungarian Generative Diachronic Syntax project (78074) of OTKA, the Hungarian National Scientific Research Fund.

References

- Bartos, Huba. 2000. Az inflexiók jelenségek szintaktikai háttere. In *Strukturális magyar nyelvtan II. Morfológia*, ed. Ferenc Kiefer, 653–761. Budapest: Akadémiai Kiadó.
- Bobaljik, Jonathan, and P. Branigan. 2006. Eccentric agreement and multiple Case-checking. In *Ergativity: Emerging Issues*, ed. A. Johns, D. Massam, and J. Ndayiragije, 44–77. Dordrecht: Kluwer.
- Collinder, Björn. 1960. *Comparative Grammar of the Uralic Languages*. Stockholm: Almqvist.
- Comrie, Bernard. 1980. Inverse verb forms in Siberia: Evidence from Chukchee, Koryak and Kamchadal. *Folia Linguistica* 1: 61–74.

- Csúcs, Sándor. 2001. Die Konjugation im Urpermisschen. In *Congressus Nonus Internationalis Fenno-Ugristarum* 4, 190–8. Tartu: University of Tartu.
- Dalrymple, Mary, and Irina Nikolaeva. 2011. *Objects and Information Structure*. Cambridge: Cambridge University Press.
- Givón, Talmy. 1976. Topic, pronoun, and grammatical agreement. In *Subject and Topic*, ed. Charles Li and Sandra Thompson, 149–88. New York: Academic Press.
- Hajdú, Péter. 1966. *Bevezetés az uráli nyelvtudományba*. Budapest: Tankönyvkiadó.
- Havas, Ferenc. 2004. Objective conjugation and medialisation. *Acta Linguistica Hungarica* 51, no. 1: 95–141.
- Honti, László. 1984. *Chrestomathia Ostiacica*. Budapest: Tankönyvkiadó.
- Honti, László. 1995. Zur Morphotaktik und Morphosyntax der uralischen/finnisch-ugrischen Grundsprache. In *Congressus Octavus Internationalis Fennougristarum Pars I*, ed. Heikki Leskinen, 53–82. Jyväskylä: Moderatores.
- Honti, László. 1996. Az uráli nyelvek tárgyas ragozású igealakjainak történeti előzményeiről. *Uralisztikai Tanulmányok* 7: 127–132. Budapest: ELTE.
- Honti, László. 2009. Tűnődések tárgyas igeragozásunk kialakulásáról. *Nyelvtudományi Közlemények* 106: 132–46.
- Jakab, László. 2002. *A Jókai-kódex mint nyelvi emlék szótárszerű feldolgozásban*. Debrecen: Debrecen University.
- Janhunen, Juha. 1982. On the structure of Proto-Uralic. *Finnisch-Ugrische Forschungen* 44: 23–42.
- Kenesei, István. 1994. Subordinate clauses. In *The Syntactic Structure of Hungarian. Syntax and Semantics* 27, ed. Ferenc Kiefer and Katalin É. Kiss, 275–354. New York: Academic Press.
- Keresztes, László. 1999. *Development of Mordvin Definite Conjugation*, Suomalais-Ugrilaisen Seuran Toimituksia 233. Helsinki: Suomalais-Ugrilainen Seura.
- Kiss, Katalin É. 2005. The inverse agreement constraint in Hungarian - A relic of a Uralic-Siberian Sprachbund? In *Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk*, ed. H. Broekhuis, et al., 108–16. Berlin: Mouton de Gruyter.
- Kiss, Katalin É. 2011. Differential object-verb agreement is (fossilized) topic-verb agreement., Ms. Budapest: Research Institute for Linguistics of the Hungarian Academy of Sciences.
- Kulonen, Ulla-Maija. 1999. Object marking in the Ugric languages. In *Budapesti Uráli Műhely I. Ugor Műhely*, ed. Bakró-Nagy Marianne, Molnár Zoltán, Salánki Zsuzsanna, and Sípos Mária, 63–71. Budapest: Research Institute for Linguistics of the Hungarian Academy of Sciences.
- Marcantonio, Angela. 1985. On the definite vs. indefinite conjugation in Hungarian: A typological and diachronic analysis. *Acta Linguistica Hungarica* 35: 267–98.
- Mikola, Tibor. 1966. A tárgyrag és a tárgyas ragozás kérdéséhez. *Magyar Nyelv* 62: 441–61.
- Nikolaeva, Irina. 1999. Object agreement, grammatical relations, and information structure. *Studies in Language* 23: 331–76.
- Nikolaeva, Irina. 2001. Secondary topic as a relation in information structure. *Linguistics* 39: 1–49.
- Rebrus, Péter. 2000. Morfofonológiai jelenségek. In *Strukturális magyar nyelvtan II. Morfológia*, ed. Ferenc Kiefer, 763–949. Budapest: Akadémiai Kiadó.
- Rédei, Károly. 1962. Tárgyas igeragozásunk. *Magyar Nyelv* 58: 421–35.
- Skríbnik, Elena. 2001. Pragmatic structuring in Northern Mansi. In *Congressus Nonus Internationalis Fenno-ugristarum*, ed. T. Seilenthal. 2. Pars VI. Dissertationes sectionum: Linguistica III., 222–39. Tartu.
- Szerebrennyikov, B.A. 1956. A finnugor nyelvek történetének néhány kérdése. *Nyelvtudományi Közlemények* 58: 187–200.

Steinitz, Wolfgang. 1950. *Ostjakische Grammatik und Chrestomathie mit Wörterverzeichnis*. Leipzig: O. Harrassowitz.

Sources of examples:

- Apor-kódex. 1942. *Apor-kódex*. 1416–35/1500, ed. Szabó Dénes. Codices Hungarici II. Kolozsvár: Erdélyi Tudományos Intézet.
- Bécsi codex. 1916. *Bécsi codex* [Vienna Codex]. 1416–1435/1450, ed. Gedeon Mészöly. Budapest: Magyar Tudományos Akadémia.
- Guary-kódex. 1944. *Guary-kódex* Before 1495, ed. Szabó Dénes. Budapest: Magyar Tudományos Akadémia.
- Halotti Beszéd és Könyörgés. 1977. Halotti Beszéd és Könyörgés [Funeral Sermon and Prayer]. 1192–95. In *Magyar nyelvemlékek*, ed. József Molnár and Györgyi Simon. [Old Hungarian linguistic documents], 27 Budapest: Tankönyvkiadó.
- Jókai-kódex. 1981. *Jókai-kódex*. 1370/1448, ed. János P. Balázs. Budapest: Akadémiai Kiadó.
- Königsberg Fragment. 1977. Königsberg Fragment. circa 1350. In *Magyar nyelvemlékek*, ed. József Molnár and Györgyi Simon. [Old Hungarian linguistic documents], 51 Budapest: Tankönyvkiadó.
- Müncheni kódex. 1971. *Müncheni kódex* [Munich Codex]. 1416–35/1466, ed. Antal Nyíri. Budapest: Akadémiai Kiadó.
- Ómagyar Mária Siralom [Old Hungarian Mary's Lament]. 1977. Ómagyar Mária Siralom [Old Hungarian Mary's Lament]. 1300. In *Magyar nyelvemlékek [Old Hungarian linguistic documents]*, ed. József Molnár and Györgyi Simon, 43 Budapest: Tankönyvkiadó.
- Pesti, Gábor. 1896. *Novum Testamentum sei quattuor euangeliorum volumina lingua Hungarica donata*, ed. Szilády Áron. 1536. Budapest: Magyar Tudományos Akadémia.
- Szent Biblia. 1981. *Szent Biblia*, translated by Gáspár Károli. 1590. Facsimile. Budapest: Magyar Helikon.
- Szent Biblia. 2002. *Szent Biblia*, translated by György Káldi. 1626. Budapest: Faximilex.
- Újszövetség. 1991. *Újszövetség*, translated by Békés Gellért and Dalos Patrik. 1951. Budapest: Bencés Kiadó, Sz. Jeromos Bibliatársulat.