

## The Inverse Agreement Constraint in Uralic Languages\*

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The paper aims to answer the question why object–verb agreement is blocked in Hungarian, Tundra Nenets, Selkup, and Nganasan if the object is a first or second person pronoun. Based on Dalrymple & Nikolaeva (2011), it is argued that object–verb agreement serves (or served historically) to mark the secondary topic status of the object. The gaps in object-verb agreement can be derived from the Inverse Agreement Constraint, a formal, semantically unmotivated constraint observed by Comrie (1980) in Chukchee, Koryak and Kamchadal, forbidding object-verb agreement if the object is more ‘animate’ than the subject: The paper claims that the Inverse Agreement Constraint is a constraint on information structure. What it requires is that a secondary topic be less topical than the primary topic. An object more topical than the primary topic can only figure as a focus. A version of the constraint can also explain why Hungarian first and second person objects have no accusative suffix, and why accusative marking is optional in the case of objects having a first or second person possessor.

Keywords: *differential object–V agreement, differential object marking, information structure, secondary topic, Inverse Agreement Constraint*

### 1 Introduction: The problem

It is a long-standing mystery of Hungarian grammar that object–verb agreement, elicited by definite objects, is blocked if the object is a first or second person pronoun. Compare:

- (1) a. *János lát-t-a őt.*  
John see-PAST-OBJ.3SG him<sup>1</sup>  
‘John saw him.’

versus

- b. *János lát-ott engem.*  
John see-PAST.3SG me  
‘John saw me.’

As revealed by the data of Dalrymple & Nikolaeva (2011), this mystery is not confined to Hungarian. First and second person objects do not elicit object–verb agreement in Tundra Nenets, Selkup, and Nganasan, either. Whereas the 3rd

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<sup>1</sup> OBJ stands for a morpheme cross-referencing the object.

person object of the Tundra Nenets example in (2a) can trigger object–verb agreement, the first and second person objects in (2b) cannot. In fact, object–verb agreement is not automatic for 3rd person objects, either. As argued by Dalrymple & Nikolaeva, it is licensed if the object is a contextually given secondary topic.

- (2) a. *Wanya syita ladə° /ladə°da*  
 John he.ACC hit.3SG/ hit.OBJ.3SG  
 ‘John hit him.’  
 b. *Wanya syiqm° /syiŋ° ladə° /\*ladə°da*  
 John I. ACC/you. ACC hit.3SG/ hit.OBJ.3SG  
 ‘John hit me/you.’

(Dalrymple & Nikolaeva 2011: 172)

In the Selkup example in (3a), the verb optionally agrees with the 3rd person object. In (3b), where the object is 2nd person, object–verb agreement is impossible.

- (3) a. *Təp kanap qontyrɛnta /qontyrɛntnyty*  
 he dog. ACC see.FUT.3SG/see.FUT.OBJ.3SG  
 ‘He will see a/the dog.’  
 b. *Təp ɕinty qontyrɛnta /\*qontyrɛntnyty*  
 he you. ACC see.FUT.3SG/ see FUT.OBJ.3SG  
 ‘He will see you.’

(Kuznecova et al. (1982: 235), cited by  
 Dalrymple & Nikolaeva (2011: 199-201))

There are also non-Uralic languages that display verbal agreement with 3rd person objects, but block agreement with first and second person objects, among them Waris (Brown 1988), Sursunga, Nanggu, Waura, Parecis (Siewierska 2004: 150), and Chukchi, Koryak, and Kamchadal (Comrie 1980; Bobaljik & Branigan 2006).

Various explanations have been proposed for the lack of object–verb agreement with first and second person objects. Coppock & Wechsler (2012) try to derive the different behavior of third person and non-third person nominals from the presence versus lack of an alleged [+DEF] lexical feature. Comrie (1980) proposed a filter, the so-called Inverse Agreement Constraint to block object agreement with first and second person pronouns. Dalrymple & Nikolaeva (2011) have suggested a functional explanation based on the claim that first and second person pronouns represent a higher degree of topicality than third person pronouns. Here I will argue that Coppock & Wechsler’s account is untenable, whereas the explanations of Comrie, and Dalrymple & Nikolaeva represent two sides of the same coin: Comrie’s constraint, a seemingly unmotivated formal filter, in fact, formalizes Dalrymple & Nikolaeva’s insight. Their combined explanation straightforwardly accounts for the relevant facts of the Samoyedic languages and of Chukchi, Koryak, and Kamchadal. The lack of agreement with first and second

person objects in Hungarian is a fossil from a former stage of the language; it is the grammaticalization of the effect of the Inverse Agreement Constraint.

Capitalizing on a suggestion of Gerland & Ortmann (2013), the explanation will also be extended to a further mystery of Hungarian: the lack of the accusative suffix in standard Hungarian on first and second person objects (*engem* ‘me’ and *téged* ‘you’), and the optionality of accusative marking on objects bearing a 1st or 2nd person possessive suffix (*kalapom(-at)* ‘my hat(-ACC)’, *kalapod(-at)* ‘your hat(-ACC)’).

The paper is structured as follows. Section 2 introduces differential object-verb agreement on the basis of Hungarian facts. Section 3 surveys previous explanations of the curious distribution of agreeing and non-agreeing objects attested in Hungarian and other languages. Section 4 puts together a new explanation from the ingredients of former proposals.

## 2 Differential object-verb agreement in Hungarian

The mystery outlined above, attested in several Uralic (and non-Uralic) languages, will be introduced in detail by facts of Hungarian. The Hungarian verb is known to have two agreement paradigms: a “subjective” or “indefinite” conjugation used in the case of intransitive verbs and verbs taking an indefinite object, and an “objective” or “definite” conjugation used in the case of verbs taking a definite object. For example:

(4)	<i>én</i>	<i>íro-k</i>	<i>(egy cikket)</i>	‘I write (a paper)’
	<i>te</i>	<i>ír-sz</i>	<i>(egy cikket)</i>	‘you write (a paper)’
	<i>ő</i>	<i>ír-Ø</i>	<i>(egy cikket)</i>	‘(s)he writes (a paper)’
	<i>mi</i>	<i>ír-unk</i>	<i>(egy cikket)</i>	‘we write (a paper)’
	<i>ti</i>	<i>ír-tok</i>	<i>(egy cikket)</i>	‘you write (a paper)’
	<i>ők</i>	<i>ír-nak</i>	<i>(egy cikket)</i>	‘they write (a paper)’
(5)	<i>én</i>	<i>íro-m</i>	<i>a cikket</i>	‘I write the paper’
	<i>te</i>	<i>íro-d</i>	<i>a cikket</i>	‘you write the paper’
	<i>ő</i>	<i>ír-ja</i>	<i>a cikket</i>	‘(s)he writes the paper’
	<i>mi</i>	<i>ír-juk</i>	<i>a cikket</i>	‘we write the paper’
	<i>ti</i>	<i>ír-játok</i>	<i>a cikket</i>	‘you write the paper’
	<i>ők</i>	<i>ír-ják</i>	<i>a cikket</i>	‘they write the paper’

The types of objects eliciting the definite conjugation include, among others, nouns supplied with a definite article, possessive constructions, proper names, 3rd person personal pronouns, reflexive pronouns (which have the morphological make-up of possessive constructions of the type ‘my body’, ‘your body’), and demonstratives. Cf.

- (6) (Én) *ismere-m*            *a cikket*            /*Pál cikkét*            /*Pált*  
 I    know-OBJ.1SG    the    paper.ACC    /Paul's paper.ACC /Paul.ACC  
 /*őket/önmagamat/azókat.*  
 /they. ACC/myself.ACC/those.ACC  
 'I know the paper/Paul's paper/Paul/them/myself/those.'

The types of objects eliciting the indefinite conjugation include, among others, bare nouns, nouns supplied with an indefinite determiner or a numeral, and indefinite and universal pronouns, e.g.:

- (7) a. (Én) *ismere-k*    *egy/néhány*    /*sok*    /*minden híres*    *nyelvészt.*  
 I    know-1SG    a/some    /many/every    famous    linguist.ACC  
 'I know a/some/many/every famous linguist.'  
 b. (Én) *ismere-k*    *nyelvészeket/*    *valakit*            /*mindenkit.*  
 I    know-1SG    linguists.ACC/    somebody.ACC    /everybody.ACC  
 'I know linguists/somebody/everybody.'

Honti (1995), Rebrus (2000), Bartos (2000), etc. have argued on the basis of synchronic and diachronic considerations that the definite conjugation involves a morpheme complex consisting of two agreement suffixes (except for the 1st and 2nd person singular verb forms, where a portmanteau morpheme stands for them). The morpheme closer to the verb, represented by a *-ja/e/i* element (subject to various assimilation processes in different contexts), is an object agreement suffix, cognate with the reconstructed Proto-Uralic 3rd person singular personal pronoun. The subject agreement morpheme is null in 3rd person singular.

- |        |                  |                 |    |                           |                |
|--------|------------------|-----------------|----|---------------------------|----------------|
| (8) a. | <i>író-m</i>     | 'write-OBJ.1SG' | b. | <i>ismere-m</i>           | 'know-OBJ.1SG' |
|        | <i>író-d</i>     | 'write-OBJ.2SG' |    | <i>ismere-d</i>           | 'know-OBJ.2SG' |
|        | <i>ír-ja-Ø</i>   | 'write-OBJ.3SG' |    | <i>ismer-<i>i</i>-Ø</i>   | 'know-OBJ.3SG' |
|        | <i>ír-j-ük</i>   | 'write-OBJ.1PL' |    | <i>ismer-j-ük</i>         | 'know-OBJ.1PL' |
|        | <i>ír-já-tok</i> | 'write-OBJ.2PL' |    | <i>ismer-<i>i</i>-tek</i> | 'know-OBJ.2PL' |
|        | <i>ír-já-k</i>   | 'write-OBJ.3PL' |    | <i>ismer-<i>i</i>-k</i>   | 'know-OBJ.3PL' |

Surprisingly, a verb with a 3rd person subject taking a 1st or 2nd person object is in the indefinite conjugation:

- (9) a. *Ő ismer-Ø*    *engem/minket*    /*téged*            /*titeket.*  
 he know-3SG    me    /us            /you.SG.ACC/you.PL.ACC  
 'He knows me/us/you.'  
 b. *Ők ismer-nek*    *engem/minket*    /*téged*            /*titeket.*  
 they know-3PL    me    /us            /you.SG.ACC/you.PL.ACC  
 'They know me/us/you.'

However, a 2nd person object does elicit verbal agreement if the subject is 1st person singular – but the agreement marker is different from that found in the definite paradigm used with 3rd person objects; it is a combination of *-l-*, a 2nd

person agreement morpheme, and *-k*, the 1st person singular agreement morpheme of the indefinite conjugation:

- (10) (Én) ismer-le-k            téged            /titeket.  
 I    know-2OBJ-1SG<sup>2</sup> you.SG.ACC/you.PL.ACC  
 ‘I know you.’

### 3 Previous explanations of the gaps in object–verb agreement

#### 3.1. Explanations based on the [+/-definite] feature of the object

In the widely accepted theory of Bartos (2000), Hungarian object–verb agreement is elicited by objects of the category DP. Bartos assumes that indefinite noun phrases only project a NumP; they have no DP layer, and this is also true for 1st and 2nd person pronouns. In a modified version of this theory put forth by Coppock & Wechsler (2012), the objective conjugation “registers the object’s formal, not semantic, definiteness”. Definiteness is manifested in a +DEF feature, which is lexically associated with certain determiners and certain types of pronominals, but not with others. Objects represented by third person pronouns are +DEF, but first and second pronouns happen to be marked as -DEF.

However, the minimal pair in (11a-b) provides crucial evidence against the NumP/[-DEF] analysis of 1st and 2nd person pronouns. Sentences with a 1st person singular subject somewhat marginally allow a 1st person plural pronominal object (the optimal solution is to use a reflexive pronoun in such cases, as in (11c)). In such sentences, the verb must be in the definite conjugation (see (11a)), which clearly shows that it is not the 1st person pronoun that is indefinite in sentences like (9a-b); the use of the definite or indefinite conjugation is determined by clause-level relations.

- (11) a. ?Én minket is belevésze-m a névsorba.  
 I us.ACC also include-OBJ.1SG the namelist-into  
 ‘I also include us into the list of names.’
- b. \*Én minket is belevésze-k a névsorba.  
 I us.ACC also include-1SG the namelist-into
- cf. c. Én magunkat is belevésze-m a névsorba.  
 I ourselves.ACC also include-OBJ.1SG the namelist-into  
 ‘I also include ourselves into the list of names.’

The construction in (10) also represents a problem for the NumP/[-DEF] analysis of 1st and 2nd person pronouns. The fact that 2nd person pronouns elicit agreement on the verb if the subject is 1st person, and this agreement marker is

<sup>2</sup> 2OBJ-1SG stands for ‘2nd person object, 1st person singular subject’.

different from that found in the definite paradigm used with 3rd person objects is not explained by the theories of Bartos (2000) and Coppock & Wechsler (2012).

### 3.2. Deriving the gaps from the Inverse Agreement Constraint

As observed by É. Kiss (2005), the seemingly ad hoc gaps in Hungarian object–verb agreement, can be derived from the so-called Inverse Agreement Constraint, proposed by Comrie (1980) for the East-Siberian Chukchi, Koryak and Kamchadal. In these languages, the participants of events are ordered with respect to animacy/agentivity. The 1st person is seen as more animate than the 2nd person, the 2nd person is seen as more animate than the 3rd person, and in each person singulars are seen as more animate than plurals. In Chukchi, Koryak, and Kamchadal the V agrees both with its subject and with its object, and the relative animacy of the subject and object is constrained by the following principle:

(12) *INVERSE AGREEMENT CONSTRAINT*

An object agreeing with a verb must be lower in the animacy hierarchy than the subject agreeing with the same verb.

As shown by Comrie (1980), Chukchi, Koryak and Kamchadal have two strategies to avoid a violation of the Inverse Agreement Constraint. In case the object of a verb is more “animate” than its subject, (i) either an inverse morpheme is prefixed to the verb to indicate that the Inverse Agreement Constraint is suspended<sup>3</sup>, (ii) or the verb only agrees with its subject, but not with its object, i.e., it behaves as if it were intransitive. In the latter case the verb is supplied with a detransitivizing morpheme, yielding a verb form analyzed by Bobaljik & Branigan (2006) as a spurious case of the antipassive construction of ergative languages. Chukchi always employs strategy (ii) in the case of a 2nd person subject acting on a 1st person object.

The three languages examined by Comrie all adopt the “animacy hierarchy” under (13), but they segment it differently.

(13) 1SG > 1PL > 2SG > 2PL > 3SG > 3PL

In Koryak, singular is more prominent than plural only in the 3rd person. Chukchi collapses the first four levels of the hierarchy, as follows:

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<sup>3</sup> A similar strategy has been described in several American Indian languages, among them Algonkin. In these languages, the verb appears either in a direct form or an inverse form, depending on whether its subject or object is more prominent in the hierarchy. The direct verb form is used when the subject is more prominent than the object (e.g., when the subject is 1st person, and the object is 3rd person). If the object is more prominent than the subject, then the verb is in the inverse form. In these languages subject and object pronouns are not marked morphologically, and their word order is also free. Their subject or object status depends on whether the verb is in the direct or inverse form.

(14) 1/2 > 3SG > 3PL

In Kamchadal, the hierarchy only has two levels:

(15) 1/2/3SG > 3PL

In Koryak, the subject agreement morpheme precedes the verb, and the object agreement morpheme follows it. The Inverse Agreement Constraint is invoked in the case of the following subject-object combinations:

- (16) a. 2nd person subject – 1st person singular object  
 b. 2nd person subject – 1st person plural object  
 c. 3rd person singular subject – 1st person singular object  
 d. 3rd person singular subject – 1st person plural object  
 e. 3rd person singular subject – 2nd person object  
 f. 3rd person plural subject – any object

In the (a) and (c) cases, no object agreement morpheme is licensed (the verb has the agreement morphology of an intransitive verb, with both the prefix and the suffix agreeing with the subject). In the rest of the cases, the Inverse Agreement Constraint is suspended by the inverse morpheme *ne-*.

Hungarian also observes the Inverse Agreement Constraint, and avoids its violation by applying strategy (ii). Hungarian adopts the following version of the animacy hierarchy, collapsing both the two lowest levels, and the three intermediate levels of the hierarchy in (13):

(17) 1SG > 1PL/2 > 3

That is, the speaker-participant is at the top of the animacy hierarchy, the non-speaker participants of the discourse represent the intermediate degree of animacy, and those not participating in the discourse are the least animate.

Languages employing the Inverse Agreement Constraint differ in their treatment of subject–object pairs representing the same degree of animacy. Hungarian allows verb–object agreement in the case of a 3rd person subject and a 3rd person object; hence the formulation of the Hungarian version of the Inverse Agreement Constraint is supplemented with a caveat:

- (18) *INVERSE AGREEMENT CONSTRAINT* (for Hungarian)  
 An object agreeing with a verb must be lower in the animacy hierarchy than the subject agreeing with the same verb, unless both the subject and the object represent the lowest level of the animacy hierarchy<sup>4</sup>.

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<sup>4</sup> (18) is more explicit than the original formulation of É. Kiss (2005), cited in (i):

(i) An object agreeing with a verb must be lower in the animacy hierarchy than the subject agreeing with the same verb, unless the subject represents the lowest level of the animacy hierarchy.

Having no inverse verb forms, Hungarian avoids the violation of the Inverse Agreement Constraint by blocking verbal agreement with an object that is more animate than the subject. The definite conjugation is ruled out in the case of the following subject-object combinations:

- (19) a. 3rd person subject – 1st/2nd person object  
 b. 2nd person subject – 1st person object  
 c. 1st person plural subject – 2nd person object

These are precisely the gaps in the definite conjugation, i.e., the cases when a definite object elicits the indefinite conjugation.

The Inverse Agreement Constraint – correctly – does not rule out verb–object agreement in the case of a 1st person singular subject and a 2nd person object. As shown in (10), the Hungarian verb does agree with its object in this construction, however, the object agreement morpheme *-l-* is different from the *-ja/e/i-* agreement morpheme attested in the case of 3rd person objects. This is as expected if the object agreement morphemes were originally object pronouns cliticized to the verb, and the *-ja/e/i-* element is the descendant of a Proto-Uralic 3rd person pronoun. Although the etymology of *-l-* is uncertain, it is clearly cognate with the 2nd person subject agreement morpheme of the so-called *-ik* conjugation. The *-ik* conjugation is believed to be the descendant of a middle conjugation, where the *-l-* morpheme cross-referenced a 2nd person theme subject (in other words, a 2nd person D-structure object). Cf.

- (20) *én ese-m*    ‘I fall-1SG’  
*te ese-l*       ‘you fall-2SG’  
*ő es-ik*        ‘(s)he fall-3SG’

That is, when the object and the verb agree in Hungarian, they share a person feature; the morpheme *-ja/e/i-* agrees with a 3rd person object, whereas *-l-* agrees with a 2nd person object.

The Inverse Agreement Constraint, claiming that the verb agrees with its DP object in person, provided the object is lower in the animacy hierarchy than the subject, or both of them represent the lowest degree of the animacy scale, correctly predicts the distribution of object–verb agreement in Hungarian. Why this derivation is, nevertheless, unsatisfactory is that it leaves the motivation for the attested distribution unclear.

### 3.3. A functional explanation based on Information Structure

The reason why object–verb agreement is blocked in the case of a third person subject and a first or second person object, or in the case of a second person subject and a first person object can only be clarified if we have understood the function of object–verb agreement.



### 3.3.1. Marcantonio's theory of object–verb agreement

The question what motivates object–verb agreement, and what motivated its emergence was raised by Givón (1976), and with respect to the Ugric languages, by Marcantonio (1985). According to Givón (1976), object–verb agreement, and verbal agreement, in general, is related to information structure. Agreement morphemes appearing on the verb arose as topic-doubling pronominals in topic-shifting constructions, i.e., they marked the topic role of the cross-referenced arguments. Object agreement also played a role in signaling the relative topicality of internal arguments. When a language reanalyzed the topic constituent as the normal subject or object of the neutral, non-topicalized sentence pattern, it also reanalyzed subject–topic agreement as subject agreement and object–topic agreement as object agreement. Givón pointed out this process in the Bantu languages, in Creol languages, and in child language (Givón 1976: 151).

Marcantonio (1985) hypothesized a similar development in the Ugric branch of the Uralic family, which proceeded at different length in Hungarian, Mansi (Vogul), and Khanty (Ostyak). Marcantonio (1985) shares the generally accepted view that the Proto-Ugric sentence was SOV, and the subject also functioned as the topic of the clause. She claims that verb–object agreement arose in OSV sentences where the object had the topic role; it served to encode that the topic function was associated with the object<sup>5</sup>. Since the topic was in most cases represented by a definite noun phrase, verbal agreement with the topicalized object later came to be reinterpreted as marking the definiteness of the object.

Marcantonio reconstructed for Proto-Hungarian a diachronic process involving the following three stages:

1. Proto-Hungarian first marked the topic function of the object on the object by the suffix *-t* (which replaced the Proto-Uralic *-m*). Later the topical-accusative marker *-t* was extended to all direct objects, whether topic or not.
2. After the extension of *-t* (the present-day accusative suffix) to all direct objects, the topic function of objects came to be marked on the verb, i.e., topical object–verb agreement evolved.
3. Then Proto-Hungarian developed a topic position independent of grammatical functions, which made the marking of the topic role of the object by a verbal morpheme redundant. Consequently, the definite conjugation has been reinterpreted as marking the definiteness of the direct object—irrespective of its discourse function.

Evidence for the hypothetical stage 1 and stage 2 of this process is provided by the fact that they can be found in various Mansi and Khanty dialects. This suggests that the hypothesized process, starting in the Proto-Ugric period, got stalled at earlier stages in some of the daughter languages. Marcantonio's theory predicts that in the Ugric dialects that mark the topic role and/or the definiteness of the object by a suffix on the object, there is no verb–object agreement. In the dialects in which accusative marking is extended to all objects, the topic role of the object is encoded by a morpheme on the verb. The theory does not exclude the

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<sup>5</sup> Comrie (1977) formulated a similar insight; he assumes that verb–object agreement encoded deviation from the regular SOV pattern.

possibility of skipping stage 1, i.e., marking the topicality of the object on the verb also in lack of a generalized accusative suffix. This is what we attest in the majority of Mansi and Khanty dialects, among others in Vah Khanty. Observe the following minimal pair cited by Gulya (1970):

- (21) a. *ku rit tus-Ø*  
 man boat take-PAST. 3SG  
 ‘The man took a boat.’  
 b. *ku rit tus-t*  
 man boat take-PAST.OBJ.3SG  
 ‘The man took the boat.’

There are also Mansi dialects representing stage 1 of the change, where the accusative suffix *-m* or *-ma/me* only appears on definite objects:

- (22) a. *kwał*: ‘house.NOM/house.ACC’;  
 b. *kwał-me*: ‘the house-ACC’

(Collinder 1960, cited by Marcantio 1985, p. 285)

Bereczki’s (1971) data suggest that Mari also belongs to this type.

Marcantonio’s theory explains why Steinitz (1950:75) assumed verbal agreement with definite objects in Khanty to be optional. In dialects representing stage 2 of the change, a definite object elicits the indefinite conjugation in case it is not the topic but the focus of the clause.

Although Hungarian attained stage 3 of the change prior to the end of the 12th century, the beginning of the documented history of the Hungarian language, Old Hungarian texts still preserve relics of stage 2. Marcantonio cites several examples from 14th and early 15th century codices, collected by Bárczi (1958), in which either a topicalized indefinite object elicits the definite conjugation, or a non-topicalized definite object fails to elicit it. In example (23a) from the Vienna Codex, written around 1416, copied in 1466, the topicalized object *kit* ‘whom’ is indefinite, nevertheless the verb bears the *-e* object agreement suffix. In example (23b) from the Jókai Codex (written around 1370, copied in 1448), the object, represented by a possessive construction, is definite but non-topic, and the verb bears the null 3rd person singular indefinite agreement suffix.

- (23) a. ***Kit*** *Amasias királ anag pap* *gakorta* ***getre-tt-e***  
 whom Amasias king or priest often torture-PAST-OBJ.3SG  
 ‘whom king or priest Amasias often tortured’  
 (Vienna Codex p. 214)  
 b. *es ottan* ***ve-n*** *yšteny malaztnak latasatt*  
 and there take-PAST. 3SG divine grace.GEN sight.ACC  
 ‘and there he took the sight of God’s grace’

(Jókai Codex p. 131)

That is, topicality occasionally still overrides definiteness in licensing object–verb agreement in 14th-15th-century Hungarian. In fact, we do not even have to go back to the 14-15th century to find examples of type (23a). Although object noun phrases supplied with indefinite determiners (including the [+specific] *bizonyos* and *egyed* ‘certain’) require the indefinite conjugation according to all grammars of Modern Hungarian, Peredy (2009) has found certain types of examples in the case of which speakers hesitate whether the indefinite or the definite conjugation is more appropriate, often accepting both, or preferring the definite conjugation. Interestingly, the examples in the case of which the unexpected definite conjugation is accepted, and even preferred, by the majority of speakers (up to 85% of them) all involve a topicalized [+specific] indefinite object, e.g.:

- (24) a. *Bizonyos gyerekeket a társasjátékok leköt-i-k.*  
 certain kids.ACC the board-games absorb-Obj-3PL  
 ‘Certain kids are absorbed by board-games.’ (Peredy 2009, (13c))
- b. *Egyed nőket a sötét ruhák öregít-i-k.*  
 certain women.ACC the dark clothes make.look.old-Obj-3PL  
 ‘Certain women, dark clothes make look older.’ (Peredy 2009, (15))

These facts support Marcantonio’s basic hypothesis about the correlation between object agreement and information structure.

### 3.3.2. Nikolaeva’s theory of object–verb agreement

Though Marcantonio’s theory makes a number of correct predictions for Hungarian, it has turned out to be imprecise in certain respects. Firstly, the diachronic process outlined by her must have spanned a much longer period than assumed by her. As pointed out by Hajdú (1966), Mikola (1966), Honti (1995; 2009), Rédei (1996), Csúcs (2001), etc., verb–object agreement is attested not only in the Ugric branch of the Uralic family, but also in Mordvin and the Samoyedic languages; what is more, the morpheme agreeing with 3rd person objects is also cognate in most of these languages. Hence the diachronic process reconstructed by Marcantonio must have started in the Proto-Uralic period, before 4000 BC<sup>6</sup>.

Secondly, and more importantly from the present perspective, Nikolaeva’s (1999, 2001) research into Khanty suggests that the discourse function and the syntactic environment of verb–object agreement is likely to have been somewhat different from that assumed by Marcantonio (1985); instead of marking the topic role of the object in OSV sentences, verbal agreement with the object signaled the secondary topic role of the object in SOV sentences. As Nikolaeva’s studies of Khanty (1999a,b 2001) have revealed, the Khanty sentence is a strictly SOV structure with a morphologically unmarked object, displaying a fusion of discourse functions and grammatical functions. The subject obligatorily bears the role of topic. If the D-structure object (alone) is to be assigned the topic role, topic–subject identity is established by passivization. Citing Kulonen (1989), Nikolaeva (1999, 2001) demonstrates that theme, benefactive, location, goal, and temporal

<sup>6</sup> Keresztes (1999), on the other hand, claims that the morpheme clusters of the Mordvin definite conjugation are recent developments.

arguments can equally be encoded as subjects of a passive construction. Passivization is obligatory if the D-structure subject is non-referential, hence not topicalizable, as shown by the following minimal pairs:

- (25) a. *tam xuj xoj-na an wa:n-s-a*  
 this man who-LOC not see-PAST-PASS.3SG  
 ‘This man was seen by nobody.’
- b. \**xoj tam xuj an wa:nt-əs /wa:nt-əs-li*  
 who this man not see-PAST.3SG /see-PAST-OBJ.3SG  
 ‘Nobody saw this man.’ (Nikolaeva 2001, (28a-b))
- (26) a. *(lum) juwan re:sk-ə-s*  
 he Ivan hit-EP-PAST.3SG<sup>7</sup>  
 ‘He hit Ivan.’
- b. *juwan xoj-na re:sk-ə-s-a*  
 Ivan who-LOC hit-EP-PAST-PASS.3SG  
 ‘Who was Ivan hit by?’ (Nikolaeva 1999a, (58))

Whereas the subject is always topic, the object functions either as a secondary topic, or as a focus, depending on whether or not it elicits verbal agreement. Nikolaeva (2001) defines secondary topic as follows:

(27) *SECONDARY TOPIC*

Secondary topic is an entity such that the utterance is construed to be about the relationship between it and the primary topic.

The secondary topic shares two basic properties of primary topics: it is associated with existential presupposition, and it is activated, i.e., its referent is already present in the discourse. Interestingly, the latter requirement is stronger for secondary topics than for primary ones. As Nikolaeva (2001) shows, for a constituent to be construed as a primary topic, it merely has to be known to the interlocutors, but need not necessarily be present in the domain of discourse, i.e., it can be a non-familiar aboutness topic. The secondary topic, on the other hand, nearly always has a referent that has been activated in the immediate context or situation, i.e., it is a familiarity topic. Nikolaeva proves the familiarity of secondary topics by comparing the activation status of agreeing and non-agreeing objects in texts collected by Pápay (1906–8). She has examined nearly 1100 transitive clauses recorded by Pápay, 412 of which contain a non-agreeing object, and 677 of which contain an agreeing object. The proportion of objects evoked in the preceding context or in the situation of discourse is 87% in the case of agreeing objects, but only 11% in the case of non-agreeing objects.

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<sup>7</sup> EP abbreviates ‘epenthetic vowel’.

(28) Activation status of the object				
non-agreeing objects (412 clauses)		agreeing objects (677 clauses)		
activated	inactivated	activated	inactivated	
46	366	561	116	
11%	89%	83%	17%	

52% of the agreeing objects analyzed as inactivated are, in fact, activated clause-internally: they have a possessor referentially bound by the subject/primary topic. For example:

- (29) a. *What did he do?*  
*luw kalaŋ-əl re:sk-əs-li /\*re:sk-əs*  
 he reindeer-3SG hit-PAST-OBJ.3SG /\*hit-PAST.3SG  
 ‘Hei hit hisi/\*j reindeer.’ (Nikolaeva 2001, (45))

If a Khanty sentence answers the question “What happened?”, i.e., if it is pragmatically an all-focus utterance, its object cannot agree, i.e., it cannot be construed as a secondary topic whether or not it has been activated previously:

- (30) a. *What happened?*  
 b. *ma tam kalaŋ we:l-s-əm /\*we:l-s-e:m*  
 I this reindeer kill-PAST-1SG /kill-PAST-OBJ.1SG  
 ‘I killed this reindeer.’

In focus structures where the object is part of the presupposition, it always elicits agreement:

- (31) *ma ta:ləx ta:ta a:kət-l-e:m /\*a:kət-l-əm*  
 I mushroom here collect-PRES-OBJ.1SG /collect- PRES-1SG  
*anta to:ta*  
 not there  
 ‘I collect mushrooms HERE, not THERE.’

Whereas the secondary topic shares the topicality or saliency presupposition of the primary topic, it is claimed to be less pragmatically salient for the speaker than the primary topic (Dalrymple & Nikolaeva 2011, 57). As it stands in a certain pragmatically presupposed relation to the primary topic, it cannot appear when there is no primary topic.

In ditransitive constructions either the patient or the recipient can function as the secondary topic, eliciting agreement on the verb. In (32a) the patient is the secondary topic. (32b) contains no secondary topic and no object agreement. In (32c), the recipient is encoded as the caseless object-topic eliciting agreement.

- (32) a. *(ma) a:n Juwan-a ma-s-e:m*  
 I cup John-LAT give-PAST-OBJ.1SG  
 ‘I gave the cup to John.’

- b. (ma) *Juwan-a a:n ma-s-ə̃m*  
 I John-LAT cup give- PAST-1SG  
 ‘I gave the cup to John.’
- c. (ma) *Juwan a:n-na ma-s-e:m /\*ma-s-ə̃m*  
 I John cup-LOC give- PAST-OBJ.1SG /give- PAST-1SG  
 ‘I gave John a cup.’

The array of grammaticality judgments in (32) suggests that (32b) represents the base generated order, which can answer the questions *What happened*, or *What did John do*. (32c) is a derived order, involving the removal of the goal constituent from inside the verb phrase, the focus domain.

Differential object agreement encoding the secondary topic role of the object is not restricted to Khanty in the Uralic language family. Skribnik (2001) reports similar facts from Mansi, and Dalrymple & Nikolaeva (2011) report similar facts from Tundra Nenets, Selkup, and Nganasan, representatives of the Samoyedic branch, areally located between the West-Siberian Mansi and Khanty, and the non-Uralic East-Siberian Chukchi, Koryak, and Kamchadal. In all of these languages, verbal agreement with the object is seemingly optional; in fact, it is determined by whether the object is a contextually given topic, or a focus, carrying new information.

The grammars of Nenets, Selkup, Nganasan, and Hungarian not only share the phenomenon of object–verb agreement; they also share the prohibition against agreement with first and second person objects (recall the Tundra Nenets examples in (2), and the Selkup examples in (3)). The fact that discourse-motivated object–verb agreement is present in more than one branch of the Uralic family suggests that it is Proto-Uralic heritage. Since the blocking of agreement with 1st and 2nd person objects is also a shared property of many of these languages, it cannot be an accidental phenomenon but must be an integral part of the system of discourse-motivated object–verb agreement inherited from the proto-language. Dalrymple & Nikolaeva draw the plausible – though not fully explicit – conclusion that the lack of agreement with 1st and 2nd person objects must be related to the inherent topicality of 1st and 2nd person pronouns. “On this view, the Samoyedic languages (Nenets, Selkup and Nganasan) and Old Hungarian have grammaticalised the tendency for first and second person pronouns to be likely primary topics and unlikely secondary topics. Therefore, they cannot correspond to the primary object, which is strongly aligned with the secondary topic in these languages. There are no such restrictions for third person objects” (Dalrymple & Nikolaeva 2011: 201).

#### 4 The Inverse Agreement Constraint revisited

Dalrymple & Nikolaeva’s insight provides the missing motivation for the Inverse Agreement Constraint; or, from the opposite perspective, the Inverse Agreement Constraint allows a more precise formulation of Dalrymple & Nikolaeva’s insight. Namely, in a typical SOV sentence structure of the Uralic type, where the primary

topic is obligatorily promoted to the role of grammatical subject, an object is either secondary topic (marked by verbal agreement), or focus. What the Inverse Agreement Constraint blocks is that the secondary topic be more topical (in other words, more animate, more specific) than the primary topic. An object more animate, more salient than the subject can only be presented as a focus.

Hungarian is not an SOV language any more, but it has preserved the Inverse Agreement Constraint as a linguistic fossil. Hungarian might have gone through the following diachronic process, starting in the Proto-Ugric, or Proto-Uralic period: Originally it was a language where the primary topic and the subject roles were fused, i.e., the primary topic had to be construed as the subject of the clause. The object functioned either as a focus or as a secondary topic. The secondary topic role of the object was marked on the object by a *-t* suffix, i.e., the Proto-Hungarian of this period employed the same kind of differential object marking that is attested in some present-day Mansi dialects (cf. the discussion of (22)). Later the *-t* accusative ending was generalized to all objects, and the secondary topic role of the object came to be marked on the verb by a suffix agreeing with the object in person.

The secondary topic, represented by the object, had a dependent, subordinate role with respect to the primary topic – hence it had to be less animate than the primary topic. An object more animate than the primary topic could only be construed as a focus. Since a first or second person object is inherently more animate, more topical, than a third person object, a first or second person object could not function as a secondary topic. Hence in the period when the secondary object status was marked on the object by a *-t* suffix, it received no *-t*, and this property of first and second person singular pronouns was preserved also after *-t* had been generalized to all objects. First and second person singular object pronouns still receive no accusative case ending in Hungarian; they only bear the 3rd person singular possessive morpheme, a means of marking definiteness in Proto-Ugric and in many of the present-day Uralic languages:

(33)	<i>én</i>	–	<i>en-g-em-Ø</i>		<i>te</i>	–	<i>té-g-ed-Ø</i>
	I-NOM		I-EP-POSS1SG <sup>8</sup>		you-NOM		you-EP-POSS2SG
	‘I’		‘I-ACC’		‘you.SG’		‘you.SG-ACC’

Non-standard varieties of Hungarian have already eliminated these exceptional forms:

(34)	<i>én</i>	–	<i>en-g-em-et</i>		<i>te</i>	–	<i>té-g-ed-et</i>
	I-NOM		I-EP-POSS1SG-ACC		you-NOM		you-EP-POSS2SG-ACC
	‘I’		‘I-ACC’		‘you.SG’		‘you.SG-ACC’

Objects with a first or second person singular possessor are also full grammatical without an accusative ending, and objects with a first or second person plural possessor are also marginally acceptable:

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<sup>8</sup> EP stands for ‘epenthetic’.

- (35) *Keresem a kalapom /kalapod /??kalapunk/??kalapotok.*  
 seek.OBJ.1SG the hat.POSS1SG /hat.POSS2SG/ hat.POSS1PL/hat.POSS2PL  
 ‘I am looking for my hat/your hat/our hat/your hat.’

In every other case, the omission of the accusative suffix of the object is strongly ungrammatical:

- (36) \*\* *Keresem a kalapja /a kalap.*  
 seek-OBJ.1SG the hat-POSS3SG/the hat  
 ‘I am looking for his hat/the hat.’

The constructions in (35) are also fossilized manifestations of the inherent primary topicality of an object anchored to the speaker or to the addressee.

When Hungarian started marking the secondary topic role of the object by verbal agreement, the inherent primary topic status of the first and second persons came to be manifested as the Inverse Agreement Constraint, prohibiting the marking of a first or second person object as a secondary topic.

By the end of the 12th century, the time of the first surviving coherent text, Hungarian had changed from SOV to Topic Focus V X\*, and the topic function came to be encoded by movement into a designated left-peripheral position. Agreement between the primary topic and the verb grammaticalized as obligatory subject–verb agreement, whereas secondary topic–verb agreement grammaticalized as obligatory definite object–verb agreement. The Inverse Agreement Constraint fossilized as a gap in definite object–verb agreement in the case of ‘3rd person subject/1st or 2nd person object’, and ‘2nd person subject/1st person object’ combinations.

The question whether the interpretation of the Inverse Agreement Constraint as a constraint on the relative animacy of the primary and secondary topics can be extended to non-Uralic languages such as Chukchi, Koryak, and Kamchadal, as well, would require a detailed analysis of the relevant constructions of these languages. However, certain hints in the existing analyses suggest that object–verb agreement is related to the topicality of the object in these languages, too. As shown by Comrie (1980) and Bobaljik & Branigan (2006), in the Chukchi active transitive clause, the verb usually agrees both with the ergative subject and the absolutive object. A verbal prefix references the person and number of the subject, and a suffix references the subject for an intransitive verb, and the object (or a combination of subject and object features) for a transitive verb. Chukchi also has an antipassive construction, where the verb is supplied with *-ine-*, a detransitivizing suffix, the D-structure object bears oblique instead of absolutive case, and the verb fails to agree with it. Interestingly, in all the examples cited by Bobaljik & Branigan (2006), the object of an active clause, eliciting agreement, is translated as definite, whereas the object of an antipassive clause, not eliciting agreement, is translated as indefinite. Compare the following minimal pair, cited from Kozinsky et al. (1988: 652):



- (37) a. *?aačək-a kimit?-ən ne-nl?etət-ən*  
 youth-ERG load-ABS 3PL.SUB-carry-3SG.OBJ  
 ‘(The) young men carried away the load’
- b. *?aačək-ət ine-nl?etət-γ?et kimit?-e*  
 youth- PL(ABS) AP-carry-3PL.SUBJ load-INSTR  
 ‘(The) young men carried away a load’

Since the agreeing object noun phrase in (37a) has no overt determiner, its definiteness must be computed on the basis of the object agreement morpheme on the verb, presumably marking its secondary topic status (the primary topic role being associated with the clause-initial subject).

In (38) the inverse agreement constraint blocks agreement between the object and the verb:

- (38) *ə-nan γəm Ø-ine- l?u-l?i*  
 he-ERG I (ABS) 3SG.SUB-AP-see-3SG.SUBJ  
 ‘He saw me.’ (cited from Skorik 1977: 44)

The construction in (38) is called ‘spurious antipassive’ because, although the verb bears the *-ine-* prefix, and the verb fails to agree with its object like in the antipassive voice, the object, preposed into preverbal position, is assigned absolutive case, and the subject is ergative like in the active voice.

The comparison of examples (37a-b) and (38) suggests that *-ine-* marks the presence of a non-agreeing object. The object eliciting agreement in (37a) occupies a post-subject, preverbal position, and bears structural (absolutive) case. However, post-subject position in the preverbal domain, and absolutive case are properties also shared by the non-agreeing object in (38), hence they cannot be sufficient to trigger object–verb agreement. The property that the agreeing object in (37a) has and the non-agreeing object in (38) does not have is its relatively low animacy as compared to the subject. The situation appears to be similar to that reconstructed for Proto-Hungarian on the basis of Khanty. The subject functions as primary, aboutness topic, whereas the preverbal, absolutive object can – but need not – function as secondary, familiarity topic. Its topic role is marked by verbal agreement. Apparently in Chukchi, the verbal suffix agrees with the familiarity topic, and the verbal prefix agrees with the aboutness topic. (In single-topic sentences the same topic functions as aboutness topic and familiarity topic, hence it elicits agreement twice.) What the inverse agreement constraint forbids is that an object more animate, i.e., more topical, than the primary topic be construed as a secondary topic.

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