Possessive Agreement Turned into a Derivational Suffix

Katalin É. Kiss

Abstract This paper introduces a non-canonical type of grammaticalization: it argues that the -*ik* partitive suffix of Hungarian has been grammaticalized from a 3PL possessive agreement morpheme, undergoing semantic bleaching (the loss of person and number features, i.e., the loss of referential identifiability), decategorization, and morphologial simplification. The use of possessive agreement for the encoding of definiteness/specificity is typical of most Uralic languages, however, only the history of Hungarian is documented long enough to allow the tracking of the evolution of the non-possessive function of the agreement suffix. The paper shows that the suffix -*ik*, attached to pronouns, numerals and comparative adjectives in Modern Hungarian, expressing partitivity (e.g., *minden-ik lány* 'every one of the girls' versus *minden lány* 'every girl') was in Early Old Hungarian an allomorph of the 3PL possessive agreement suffix; it cross-referenced a pro-dropped 3PL possessor on a possessum consisting of a determiner or modifier and an ellipted nominal (pro$_i$ *minden-Ø-ik$_i$* 'every one of them'). Owing to its covertness, the pro possessor came to be ignored, and the -*ik*-marked elliptical expression, originally expressing a subset–set relation between the pronominal possessor and the possessum, assumed a general partitive interpretation, with -*ik* reinterpreted as a derivational suffix. The Hungarian 3SG possessive agreement suffix, -*jA*, is going through a similar grammaticalization process.

Keywords Grammaticalization · Possessive agreement · Partitivity Uralic morphosyntax · Hungarian

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1   Introduction

The prototypical case of grammaticalization is a process in the course of which a lexical word loses its descriptive content and becomes a grammatical marker. This paper discusses a more complex type of grammaticalization, in the course of which the phonologically null pro possessor of a possessive construction is lost, whereby the agreement suffix cross-referencing it on the possessum is reanalyzed as a derivational suffix marking partitivity.

The phenomenon in question is known from various Uralic languages, where possessive agreement appears to have assumed a determiner-like function. It has recently been a much discussed question how the possessive and non-possessive uses of the agreement suffixes relate to each other (Nikolaeva 2003); whether Uralic definiteness-marking possessive agreement has been grammaticalized into a definite determiner (Gerland 2014), or it has preserved its original possessive function, merely the possessor–possessum relation is looser in Uralic than in the Indo-Europen languages, encompassing all kinds of associative relations (Fraurud 2001). The hypothesis has also been raised that in the Uralic languages, possessive agreement plays a role in organizing discourse, i.e., in linking participants into a topic chain (Janda 2015).

This paper helps to clarify these issues by reconstructing the grammaticalization of possessive agreement into a partitivity marker in Hungarian, the language with the longest documented history in the Uralic family. Hungarian has two possessive morphemes functioning as a partitivity marker: -*ik*, an obsolete allomorph of the 3rd person plural possessive suffix, and -(*j*)*A*, the productive 3rd person singular possessive suffix.[1] As will be shown, they represent different stages of the pathway of grammaticalization that leads from a possessive morpheme denoting that its nominal base is the possessum of a pronominal possessor to the same morpheme denoting partitivity.

The paper is organized as follows: Sect. 2 is a brief survey of the literature discussing the non-possessive use of possessive agreement in the Uralic languages. Section 3 introduces the suffix -*ik*, a derivational suffix conveying partitivity and definiteness in Modern Hungarian. Section 4 argues that -*ik* functioned as a 3rd person plural possessive ending in Old Hungarian. Section 5 reconstructs the grammaticalization process that has resulted in the loss of its possessive function, while preserving its definite and partitive features. Section 6 shows that -(*j*)*A*, the 3rd person singular possessive agreement marker, is going through a similar grammaticalization process as its plural counterpart. Section 7 is a summary.

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[1]Section 6 will give a more precise characterization of -*jA*. In fact, it is a general possessedness suffix, and the 3SG possessive agreement marker cross-referencing a 3SG pro(nominal) possessor is a morpheme complex consisting of -*jA* and a phonologically null agreement suffix.

2   Previous Approaches

The grammars of many Uralic languages mention the fact that possessive suffixes, whose primary function is to mark the person and number of a (typically covert) pronominal possessor on the possessum, can also have a non-possessive, determining role. Nikolaeva's (2003) survey distinguishes three types of non-possessive meanings: i. Identifying–deictic function, with the 3rd person singular possessive suffix marking that the referent of the possessum is uniquely identifiable, i.e., visible or otherwise salient, in a given situation. E.g.:

(1) a. t'ukona **sira-da**   wər-cawey◦. (Nenets, Nikolaeva 2014: 69)
        here   snow-3SG dirt-PROP
        ʹHere the snow is dirty.ʹ

   b. Guždor vylyn   **turyn-ez**   čeber. (Udmurt, Nikolaeva 2003: ex. (6b))
        field   on   grass-3SG beautiful
        ʹThe grass on the field is beautiful.ʹ

ii. Contrastive-partitive function, with the 3rd person plural possessive suffix marking that the referent of the possessum is a subset of a previously introduced set. (2a) also illustrates a collateral function of possessive agreement: it nominalizes the adjective it combines with.

(2) a. Wera-h   te-xt◦əta   **ŋarka-doh** səwa. (Nenets, Nikolaeva 2014: 69)
        Vera-GEN reindeer-PL.ABL.3SG big-3PL   good
        ʹAmong Vera's reindeer, the big one is good.ʹ

   b. t'uku◦ xasawa ŋəc'eke-xət◦   **ŋob-toh**   səwa. (Nenets, Nikolaeva 2014: 70)
        this   male   child-PL(ABL) one-3PL   good
        ʹOne of these boys is good.ʹ

iii. Associative function, expressing that the referent of the possessive morpheme (often the speaker or the addressee, referred to by a 1st or 2nd person singular suffix) is the reference point in the situation, e.g.:

(3) a. **Tam hu:j-e:m**   xal'śa   joxt-əs? (Khanty, Nikolaeva 1999: 83)
       this   man-1SG   where   come-PAST.3SG
       ʹWhere has this man come from?ʹ

   b. Mans-əŋən ka:t   a:mp.   Wul a:mp pare:m-əs-li   a:j   **a:mp-əl**.
      walked   two   dog   big dog bit   small   dog-3SG
      ʹTwo dogs were walking. The big dog bit the small one.ʹ (Khanty, Nikolaeva 1999: 83)

The non-possessive use of possessive agreement is very frequent in the Uralic languages. In the Uralic Udmurt, for example, 30% of subjects and 40% of objects bear possessive agreement (Fraurud 2001). Fraurud sees a close connection between the possessive and the seemingly non-possessive functions of possessive agreement, arguing that possessive agreement in Uralic may also express anchoring to non-focussed or implicit referents, to contextual elements like time and place, to actions and states, and even merely to the linguistic or situational context. Fraurud sees no evidence suggesting that the determiner-like functions of possessive agreement might be the results of a grammaticalization process. According to her, possessive agreement is likely to have always had a wider range of functions in Uralic than in English.

Gerland (2014) formulated a similar view. As she put it, both possessive suffixes expressing agreement with a possessor and those expressing definiteness establish a relation; however, in the case of the non-possessive use, the suffix relates the possessum either to the discourse situation (with pragmatically unique referents) or to cultural knowledge (with semantically unique referents). She regards the non-possessively used possessive suffix as a definite article—despite the fact that its use as a definiteness marker is optional. Her main argument is that it can appear in all contexts that are typical of definite articles.

Janda (2015) claims that both the possessive and the non-possessive uses of possessive agreement are manifestations of the same function, that of establishing a relation between two entities. The entity denoted by the possessive suffix is a uniquely identifiable reference point, usually the primary topic. Janda argues that the role of the possessive suffixes in a story is to link referents into a topic chain; the primary topic cross-referenced by the possessive suffix serves as an anchor for introducing new referents and re-introducing old ones.

3   A 3rd Person Plural Possessive Suffix Turned into a Partitivity Marker in Hungarian

Studies of the definiteness-marking function of the Uralic possessive suffix mention Hungarian as an exception, where the possessive suffix has no definiteness-marking role. In fact, the associative function of 1st and 2nd person agreement identified by Nikolaeva (2003) is attested in Hungarian, too. For instance, the expression *ember-*

ünk man-1PL 'our man' is often used in the sense 'the aforementioned man'. Here is a contemporary example from the Hungarian Historical Corpus[2]:

(4)   Amikor valakit   mindenáron   úgy   kezelünk,   mint egy idegbeteget,…
      when   somebody-ACC by.all.means so   treat-1PL   as   a   neuropath-ACC
      lényegében elérjük   az eredményt, s   **emberünk** valóban idegessé válik.*
      in.fact   achieve-1PL the result-ACC and man-1PL   really   nervous becomes
      'If we treat someone as a neuropath,…in fact, we achieve the result and our man [the
      person in question] really becomes nervous.'

      (*Csepeli, György: A hétköznapi élet anatómiája (1986: 87).
       http://clara.nytud.hu/mtsz/run.cgi/first_form.)

More importantly, Hungarian also has two definiteness-marking possessive agreement suffixes, *-ik* and *-jA*. The suffix *-ik* appears (optionally) on universal, interrogative and existential pronouns, among them *minden-ik/mindegyik* 'each', *mely-ik* 'which', *valamely-ik* 'some', *némely-ik* 'some', *bármely-ik* 'any', *akármely-ik* 'any',[3] *egy-ik* 'one', *más-ik* 'other'. Whereas the *-ik*-less versions of these pronouns are indefinite, the *-ik* variants are definite, which is indicated by the fact that, when used as objects, the *-ik*-less pronouns elicit the indefinite conjugation, and the *-ik* versions elicit the definite conjugation. (A verb in the definite conjugation is supplied with the sequence or the fusion of an object agreement suffix and a subject agreement suffix. Object agreement is only elicited by a definite object—see Bartos (1997)). Compare[4]:

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[2]Csepeli, György: *A hétköznapi élet anatómiája* (1986: 87). http://clara.nytud.hu/mtsz/run.cgi/first_form.

[3]Pronouns involving the morphemes *bár* and *akár* are free choice items—see Halm (2016).

[4]Since *minden-ik* shares the stem of *minden* 'every', I gloss it as 'every-IK'. At the same time, the partitivity of the *-ik*-phrase is similar to that of an *each* phrase, therefore, I use *each* in the translation.

(5) a. Ismer-ek   *minden* vendég-et.
         know-1SG every   guest-ACC
         ʻI know every guest.'

     b. Ismer-**em**   *minden-**ik**/mindegy-**ik*** vendég-et.
         know-OBJ.1SG   every-IK   guest-ACC
         ʻI know each guest.'

(6) a. a kép, *amely-et*   lát-sz
         the picture which-ACC   see-2SG
         ʻthe picture, which you see,'

     b. az   a   kép, *amely-**ik**-et*   lát-**od**
         that the picture which-IK-ACC   see-OBJ.1SG
         ʻthe picture that you see'

(7) a. Gyakorlásként   kimond   *valamely* angol   szó-t.
         practice.for   utter.3SG   some   English word-ACC
         ʻAs a practice, he utters some English word.'

     b. Gyakorlásként   kimond-**ja**   *valamely-**ik*** angol   szót.
         practice.for   utter-OBJ.1SG   some-IK   English word-ACC
         ʻAs a practice, he utters some English word.'

In these cases, *-ik* appears to fulfil a definiteness-marking role similar to that of the non-possessively used possessive suffixes of the sister languages. More precisely, the *-ik* suffix adds the features [+partitive] and [+definite] to the universal or existential quantifier it merges with; it expresses that the individual denoted by the quantified expression represents a proper subset of a familiar set. Observe two pairs of examples from the Hungarian Historical Corpus. Whereas a bare *mely* is a wh-pronoun mostly introducing an appositive relative clause or an exclamative (8), *melyik* is a partitive interrogative or relative pronoun, meaning ʻwhich one of those under discussion' (9).[5,6]

(8) a. S   **mely** remek osztály, **mely-et**   itt   most én képvisel-ek
         and what excellent class which-ACC   here now I represent-1SG
         ʻAnd what an excellent class this is, which I now represent here'

     b. Tudja,   hogy mikor, **mely-ik**   halfajtá-t   a legjobb fogyasztani.
         knows   that when   which-IK fish-kind-ACC the best   consume.INF
         ʻHe knows which fish is the best to consume when.'

Since an *-ik*-marked universal pronoun always denotes the members of a set present in the domain of discourse (9a), it is not suitable for generic statements (9b):

[5]Fodor, András: *Szigetek* (1980: 155). http://clara.nytud.hu/mtsz/run.cgi/first_form.

[6]Zsarnay, Sándor: Étkezés Japánban (1980: 56). http://clara.nytud.hu/mtsz/run.cgi/first_form.

(9) a. A tanszékünkön   **minden-ik** férfi szakállas.
       the department.1PL.at every-IK   man bearded
       'Each man is bearded at our department.'

   b. **Minden/??minden-ik** ember   halandó.
      every   /every-IK   man   mortal
      'Every/??each man is mortal.'

A further function of the suffix *-ik* is to derive ordinals from fractionals (*másod-ik* 'second', *harmad-ik* 'third', *negyed-ik* 'fourth').

The suffix *-ik* can also appear on comparative and superlative adjectives. The *-ik*-marked adjective can function as a nominal, i.e., the AP projection can also be assigned a nominal shell, the empty head of which is the equivalent of the English *one*. The suffix *-ik* supplies the expression with the features [+partitive] and [+definite]. As a definite nominal, the *-ik*-marked adjective takes a definite article:

(10) A   *szebb-**ik**-et*   megtart-om,   a *csúnyább-**ik**-at*   visszaad-om.
     the   nicer-IK-ACC keep-OBJ.1SG   the uglier-IK-ACC   return-OBJ.1SG
     'The nicer one, I keep, the uglier one, I return.'

The *-ik* suffix in (10) has the same function that is identified by Nikolaeva (2003) as the contrastive-partitive function of possessive agreement.

4 *-ik* in Old Hungarian

In Hungarian possessive constructions, it is the possessum that must be marked; in the presence of a pronominal possessor it bears a suffix agreeing with the possessor in person and number. A pronominal possessor is silent (unless it is contrasted); it can be reconstructed from the agreement suffix of the possessum, i.e.[7]:

(11) pro_i ház-am_i pro_i ház-unk_i
          house-1.SG 'my house'   house-1PL 'our house'
      pro_i ház-ad_i pro_i ház-atok_i
          house-2.SG 'your house'   house-2PL 'your house'
      pro_i ház-a_i pro_i ház-uk_i
          house-3.SG 'his/her house'   house-3PL 'their house'

In present-day Hungarian, the productive 3PL possessive suffix is *-Uk* (i.e., *-uk/ük*), and the assumption that *-ik* was also a 3PL possessive allomorph, first

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[7]The suffixes have back- and front-vowel variants. The 3SG *-a/-e* suffixes also have *-ja/-je* allomorphs. On their distribution, see den Dikken (this volume).

raised by Simonyi ([1895]: 716), is not generally accepted (Korompay [1992]: 353).[8] We have the following reason to assume that the *-ik* suffix appearing on Old Hungarian pronouns and numerals is a 3PL plural suffix:

A comprehensive search of the Old Hungarian database (http://omagyarkorpusz. nytud.hu/) shows that in Old Hungarian documents, only the *-ik*-less versions of existential and universal pronouns occur as determiners or modifiers of lexical nouns; all *-ik*-marked pronouns behave like nominalizations. They represent the possessum in possessive constructions, where the possessor is a 3rd person plural pro coreferent with a plural lexical antecedent in a preceding sentence (marked by underlining in the examples below). In the underlying syntactic structure, the *-ik*-marked existential or universal pronoun is the modifier of an ellipted nominal (the equivalent of the English *one*), and it functions as the phonological host of the suffix *-ik* assigned to the possessum:

(12) …DP$_i$… [pro$_i$ minden Ø-ik$_i$]
                    their every   one-3PL 'each one of them'

Compare some examples from the Old Hungarian Corpus (http:// oldhungariancorpus.nytud.hu/) illustrating the syntactic contexts in which the *-ik*-less and *ik*-marked versions of universal, interrogative and existential pronouns occur:[9,10]

(13) a. *minden* (determiner):
      mert   **minden** orzagok, tartomańok, varasok, videkek, varak nem elegek teneked
      because every   countries provinces   cities   lands   castles not enough you.DAT
      'because **all** countries, provinces, cities, castles are not enough for you'
                                                                      (Bod Codex (1500-1525) 4v)

   b. *minden-ik* (possessum):
      Valanac kedig   ot   vèttetuen <u>hat kọ   vedrec</u> … **mēdèn-ic** foglaluā kèt kọblọt
      were   however there   thrown   six stone buckets   every-3PL taking   two vats.ACC
      'Six stone buckets were thrown there … **each of them** taking two vats'
                                                                      (München Codex (1416/1466) 86ra)

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[8]Whereas Korompay ([1992]) gives a list of arguments against analyzing *-ik* as an allomorph of possessive agreement, Korompay ([2011]) is somewhat more permissive in this respect.

[9]*v* stands for verso, *r* stands for recto, *a* and *b* mark two columns on the same page.

[10]The first date marks the time of the creation of the text; the second date marks the creation of the given copy.

(14) a. *mely* (modifier):

    mely   paranczolatokott   frater lleo ewrewmest   meg tart-a

    which commandments.ACC Frater Leo happily   PRT keep-PAST.3SG

    '**which** commandments Frater Leo kept happily'

                                                (Jókai Codex (1370/1448) 41)

  b. *melyik* (possessum):

    Eg nėminėmọ   vsoras-nac valanac **kèt adosi** …   m̄ghaga   monna-ic-nac

    a some.kind.of usurer-DAT were   two debtors-3SG say.PAST.3SG both-3PL-DAT

    mel'l'-ic   zereti ọtet inkab

    which-3PL loves him more

    'Some usurer had two debtors… he asked both of them **which of them** loved him more'

                                     (München Codex (1416/1466) 62vb)

(15) a. *valamely* (modifier):

    menden,   valaki kerest   kerènd harminc napiglan **valamel** istèn-tọl

    everyone who   request.ACC asks   thirty   day.for   some   god-from

    'everyone who makes a request of **some** god for thirty days'

                                 (Bécsi [Vienna] Codex (1416/1450) 145)

  b. *valamelyik* (possessum):

    Es   ezekett   mend <u>az fraterok</u> ezkeppen tartyakuala   zerelembelewl hogy ha

    and these.ACC all   the fraters this.way   were.keeping love.from   that if

    valamel-yk valam̈koron mas-yk-nak   mondotta uolna bozzosagnac   bezedett

    some-3PL sometime   other-3PL-DAT said   had   annoyance.DAT word.ACC

    'And all the fraters keep these for love that if **some of them** had told the other words of

    annoyance, …   (Jókai Codex (1370/1448) 94)

In Old Hungarian, ordinal numerals are still non-distinct from fractionals. Ordinals occurring in modifier position are *-ik*-less; the *-ik*-marked variants are understood to be nominalizations representing the possessum in possessive constructions; more precisely, they are understood as modifiers of an ellipted nominal. That is, the *-ik*-marked and *-ik*-less variants of ordinals show the same distribution as the *-ik*-less and *-ik*-marked variants of pronouns:

(16) a. *-ik*-less ordinal (modifier):

    valanac az èlọ zèkèrbèn vèrès louac   a   **mas**   zèkèrbèn fèkètè louac

    were   the first cart.in   red horses   the second cart.in   black   horses

    a **harmad** zèkèrbèn fèier louac a **negèd** zèkèrbèn kùlọmb zinọ   louac

    the third   cart.in   white horses the fourth cart.in   different colored horses

    'There were red horses in the **first** cart, black horses in the **second** cart, white horses in the **third** cart, horses of different colours in the **fourth** cart'

                                 (Vienna Codex (1416/1450) 301)

  b. ordinal with *-ik* (possessum):

    Valanac kedig   mu nalonc <u>hèten at'afiac</u> & az èlọ fèlesegèt veuen   meghala

    were   however we at   seven brothers & the first wife.ACC having.taken died

    … haga ọ fèleseget   ọ at't'afianac Azon keppèn a **mas-ic**   a **harmad-ic**…

      left his wife.ACC his brother.DAT that way   the second-3PL the third-3PL

    'There were in our midst seven brethren, and having taken a wife the first died and left his wife to his relative. So did **the second one of them**, **the third one of them** …'

                               (München Codex (1416/1466) 28ra)

The assumption that -*ik* was an allomorph of the 3rd person plural possessive suffix in Old Hungarian has been questioned because the common Old Hungarian 3rd person plural possessive allomorphs appearing on lexical nouns were -*ok* and -*ek* (see Korompay 1991, Hegedűs 2014). Actually, the very first documented occurrence of the 3rd person plural possessive agreement suffix from 1192 is -*ik*:

(17) mend   w szentíí   es   unuttei   **cuz-ic-un**
      all   he saints.3SG and   ancestors.3SG space-3PL-SUPERESS
      'on the sides of all his saints and ancestors'   (Funeral Sermon and Prayer (1192))

The example below suggests that *menden-**ik*** and *menden-**ek*** were free variants, both meaning 'each of them':

(18) De   mert   meglen   <u>keuessen valanak az barátok</u> **menden-yk-yt** kewlewn
      but   because still   few   were   the brethren   every-3PL-ACC   separately
      boczattyauala Castellomokba…Mykoron   meg tertenekuolna   az alamyznaual
      was.sending   towns.to   when   back returned   the alms.with
      Menden-ek   mutattyauala   bodog   ferencznek
      every-3PL   was.showing   blessed Francis.DAT
      'But because still there were few brothers, he was sending **each of them** separately to
      towns… When they had returned with the alms, **each of them** was showing it to
      Blessed Francis'   (Jókai Codex (1370/1448) 83)

Whereas the facts surveyed above show that in Old Hungarian possessive constructions, the overwhelming majority of pronominal heads bear an -*ik* suffix, it is also a fact that the great majority of lexical heads bear -*ok/ek*. What this apparent contradiction indicates is that a fission took place among these allomorphs before or around the beginning of the documented phase of the Old Hungarian period. The -*ok/ek* versions (which have developed into the present -*uk/ük*) came to be restricted to the context of overt nominal stems, whereas the -*ik* version was used elsewhere.

5   The Possessive Agreement → Derivational Suffix Reanalysis

Whereas in the Old Hungarian period, -*ik* is undoubtedly an allomorph of 3rd person plural possessive agreement, in the Middle Hungarian period we have more and more evidence of its being reanalyzed as a suffix marking partitivity. As will be argued below, the reanalysis involved a category type shift; the original inflectional morpheme became a derivational suffix, and this category change displays properties of grammaticalization.

A symptom of the reanalysis of -*ik* as a partitivity suffix is the appearance of -*ik*-marked elements in modifier and determiner positions, where they cannot be interpreted as heads of possessive constructions any more.

The reanalysis must first have taken place in the case of numerals and comparative adjectives. The first documented occurrences of *-ik* marked ordinals and *-ik*-marked comparative adjectives in modifier position are from around 1500:

(19) ***harmad-yk psalmus***
    third-IK   psalmus ʻthird psalmus' (Festetics Codex (1494): 299)

(20) harmad-ic vala Jacob patriarchanac az **kisseb-ic**   **fia** Joseph
    third-IK   was Jacob patriarch.DAT   the smaller-IK   son Joseph
    ʻthe third one was Joseph, Jacob patriarch's **younger son'** (Guary Codex (1495): 32)

We attest the first *-ik*-marked pronouns (*mindenik* ʻeach', *melyik* ʻwhich', *némelyik* ʻsome', *valamelyik* ʻsome' etc.) in determiner position in 17th–18th century texts (Középmagyar magánéleti korpusz [Middle Hungarian vernacular corpus] http://tmk.nytud.hu/):

(21) a. **minden-ik tehenek** az ü feiere   tette a kezeit
      every-IK   cow.DAT the it head.3SG.on put the hands.3SG.ACC
      ʻhe put his hands on the head of **each cow'**   (Witch trial 163 (1631))

    b. micsoda állatot   latott a Tanú az Gelei pinczébenn; és **melly-ik**
      what   animal-ACC saw the witness the Gelei cellar.in   and what-IK
      esztendőbenn
      year.in
      ʻwhat animal the witness saw in Gelei's cellar, and in which year'
                             (Witch trial 59. (1712))

A further symptom of the reanalysis of *-ik* as a partitive suffix is the appearance of *-ik*-marked pronouns bearing an additional productive possessive suffix. Again, we attest the first sporadic occurrences in 17th -18th century texts. These involve a (singular or plural) lexical possessor, in which case the possessum bears an *-a/e* possessive suffix[11]:

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[11]Molnár, János: Pásztor-ember (1775: 183). http://clara.nytud.hu/mtsz/run.cgi/first_form.

(22) a. *kondor ferench hozta*   **bor-nak**   **eg-yk-e**
           Kondor Ferenc brought.3SG wine-DAT one-IK-3SG
           ˈ**one of the wines** brought by Ferenc Kondor'

                                                     (1616, cited by Korompay (1992: 353))

      b. Vagyon a' poknak   egy pár kezetskején   kívül   nyóltz lába,
          is   the spider.DAT   a pair hand.3SG.SUBL besides eight foot.3SG
          melly-nek   **minden-ik-e** hasonló a' rák-lábhoz
          which-DAT   each-IK-3SG similar the crab-foot.ALLAT
          ˈThe spider has, in addition to a pair of hands, eight feet, **each of which** is similar to
          the crab's foot.'

In the historical databases, the first documented occurrence of *mindenikük/ mindegyikük* with the productive 3rd person plural possessive agreement suffix following its obsolete allomorph is from 1840[12]:

(23) … magok   a' leghiresebb és   legnagyobb mesterek gyakorlattukkal
          themselves the most.famous and   greatest   masters   practice.3PL.with
       bebizonyították, midőn **mindegy-ik-ük** … tulajdon styljét   teremté
       proved   when   every-IK-3PL   his.own style-ACC   created
       ˈthe most famous and greatest masters themselves proved it with their practice when
       each of them created his own style'

The reanalysis of *-ik* as a partitivity marking suffix must have proceeded through the following stages:

(24) *The evolution of the partitivity-marking* -ik *suffix*
(i)   Proto-H: *-ok/ek/ik* are allomorphs of 3PL possessive agreement

(ii)   Late Proto-H/Early Old H:
         Fission of *-ok/ek/ik*:   overt noun+*ok/ek*: pro_i *ház-ok_i* ˈ(the) house of them'
                                           pronoun/numeral/adjective+Ø+*ik*: pro_i *minden-ik_i* ˈevery one of them'

(iii)   Reanalysis of *-ik* as a derivational suffix marking partitivity, loss of the pro possessor
         Consequences: determiner/attributive use: *minden-ik lány* ˈeach girl'
                       taking possessive agreement anew: pro_i *minden-ik-ük_i* ˈeach of them'

The claim that the reanalysis of *-ik* represents the recategorization of an inflectional morpheme as a derivational suffix is based on the following considerations.[13]

  (i)   If the partitivity-marking *-ik* were an inflectional morpheme, the relation
        between the stem and the stem+*ik* complex ought to be transparent and

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[12]Budapesti Szemle. 1840(2): 216. http://clara.nytud.hu/mtsz/run.cgi/first_form.

[13]I am thankful to Péter Rebrus for the discussion of these issues.

predictable both morphologically and semantically. However, the transparent *minden-ik* 'every-ik' has become a dialectal version used in Transylvania, and has been replaced by the morphologically non-transparent *mind-egy-ik* 'all-one-ik' in Standard Hungarian. *Mely* 'what', the -*ik*-less variant of *mely-ik*, is also becoming outdated; the common alternative wh-pronoun is *milyen*, and the common alternative relative pronoun is *ami*.

(ii) Hungarian inflectional morphemes tend to participate in vowel harmony. Almost all of the non-harmonizing suffixes are derivational. (The relation is not bidirectional though; whereas almost all inflectional suffixes are harmonizing, derivational suffixes include both harmonizing and non-harmonizing suffixes.) The fact that -*ik* was a non-harmonizing allomorph may have facilitated its fall from the possessive agreement paradigm.

(iii) The -*ik* deriving ordinals from fractions turns nouns into adjectives, i.e., it changes the grammatical category of the relative stem, which only derivational suffixes are capable of. E.g., *öt-öd* 'fifth', a fraction, is a noun, whereas *öt-öd-ik* 'fifth', an ordinal, is an adjective. Ordinals can be subject to further derivation, e.g.: *öt-öd-ik-es* 'fifth-grader'.

(iv) The suffix -*ik* follows the comparative suffix of adjectives, so its derivational suffix status can only be maintained if the comparative suffix is also derivational. Evidence of its derivational status is provided by the fact that comparative adjectives are input to further derivation, e.g.: *jo-bb-ít* good-COMP-V 'improve', *kis-ebb-edik* small-COMP-REFL 'lessen', *ritká-bb-an* rare-COMP-ADV 'more rarely'.

The question also arises whether the inflectional suffix → derivational suffix reanalysis can be regarded as a grammaticalization process, the prototypical cases of which involve the reanalysis of lexical items as function words. The change from possessive agreement to partitivity marking displays defining features of grammaticalization: morphological decategorization, simplification (paradigm loss), and semantic bleaching (the loss of person and number features). The loss of pro is reminiscent of the loss of movement traces attested in prototypical cases of grammaticalization.

6   The 3rd Person Singular Possessive Suffix Turned into a Partitivity Marker

The 3rd person singular -*ja/-je* suffix of the possessive paradigm cited under (11), too, can function as a marker of partitivity; it combines with adjectives, and turns them into partitive nominalizations. The resulting noun phrase always involves a definite article:

(26) a. **A zöld-jé-t**   befőzöm,   **az érett-jé-ből**   lekvárt   csinál-ok.
     the green-JE-ACC   preserve-OBJ.1SG the ripe-JE-from   jam.ACC   make-1SG
     '**The green ones**, I preserve, **from the ripe ones**, I make   jam.'

   b. **A nagy-ja**   még hátra   van.   c. **A kövér-jé-t**   nem szeretem.
     the big-JA   yet behind   is   the fat-JE-ACC   not like-OBJ.1SG
     '**The major part** is yet to be done.'   '**The fat part**, I don't like.'

     These possessive-marked adjectives represent the possessum of possessive constructions containing an implicit possessor. The possessor can be reconstructed from the situation or from the context. (26a–c) are likely to be assigned interpretations similar to those in (27a–c):

(27) [A [gyümölcsök] zöld-jé-t]   befőz-öm,
     the fruits   green-JE-ACC   preserve-OBJ.1SG
     [a [gyümölcsök] érett-jé-ből] lekvárt   csinálok.
     the fruits   ripe-JE-from jam.ACC   make.1SG
     'The green ones of the fruits, I preserve, from the ripe ones of the fruits, I make jam.'

   b. [A [munka]   nagy-ja] még hátra   van.
     the work   big-JA still behind   is
     'The major part of the work is yet to be done.'

   c. [A [hús] kövér-jé-t]   nem szeret-em.
     the meat fat-JE-ACC   not   like-OBJ.1SG
     'The fat (part) of the meat, I don't like.'

     In the case of (27a), the possessor is likely to be physically present in the situation; in the case of (27b), it is just vaguely identifiable, whereas in the case of (27c), the implicit possessor belonging to the *-je*-marked adjective is conventionally fixed; it is practically part of its lexical meaning. *Fehér-je* 'white-JE', i.e., 'egg-white', and *sárgá-ja* 'yellow-JA', i.e., egg-yolk' are also nominalized adjectives of this type.[14]

     The nominalizing role of the suffix is a consequence—or, after its reanalysis as a derivational suffix, a relic—of its original possessive agreement function. A possessive agreement suffix can only merge with a N head, hence its presence on an adjectival stem presupposes a nominal projection above the adjective.

     Naturally, the question arises whether the implicit possessor of *-jA*-marked adjectives is present in syntax. If the *-jA*-marked nominalized adjectives in (28a, b)

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[14]I do not discuss 3SG possessive endings lexicalized as part of their nominal stem. In many cases, e.g., *ves-e* 'kidney', *ep-e* 'bile', *zúz-a* 'gizzard', *or-ja* 'spare-rib', *tar-ja* 'spare-rib, *mar-ja* 'withers', the original possessive suffix role of the last vowel is only clear for linguists. In some N + *jA* and Adverb +*jA* combinations, e.g., *ele-je* 'beginning', *szín-e* 'right side', *vég-e* 'end', *fonák-ja* 'wrong side', *hátul-ja* 'back', *al-ja* 'bottom', *visszá-ja* 'reverse side', *utol-ja* 'last part', the possessive origin of the suffix may be clear for the native intuition, nevertheless, it is a practically obligatory concomitant of the stem.

contained a pro possessor, we would expect a singular agreement suffix on the adjective in (28a), and a plural agreement suffix in (28b); however, the possessive ending appearing on the adjective in this construction is always singular:

(28) a. Túl nagy adag, meghagy-om **a jav-á-t.**
          too big portion, leave-OBJ.1SG the good-3SG-ACC
          'It is too big a portion, I spare **the better part of it**.'

      b. A dolgozatok jól sikerültek. **A jav-á-t   /*jav-uk-at**
          the term-papers well succeeded the good-3SG-ACC/good-3PL-ACC
          bead-juk   egy konferenciára.
          submit-OBJ.1PL a conference.to
          'The term papers succeeded well. We submit the better part of them to a conference.'

According to the standard generative view (Bartos 2000: 684; Rebrus 2000: 773), the Hungarian possessive agreement suffixes are, in fact, morpheme complexes involving a general possessedness suffix and an agreement suffix. This is clearest in the case of a plural possessum, where the plural suffix intervenes between the general possessedness suffix and the agreement morpheme:

(29) kalap -ja   -i   -m   kalap -ja   -i   -nk
         hat   -POSS -PL -1SG 'my hats'   hat   -POSS -PL -1PL 'our hats'
         kalap-ja   -i   -d   kalap-ja   -i   -tok
         hat   -POSS-PL -2SG 'your hats'   hat   -POSS-PL -2PL 'your hats'
         kalap-ja   -i   -Ø   kalap-ja   -i   -k
         hat   -POSS-PL -1SG 'his/her hats'   hat   -POSS-PL -3PL 'their hats'

An agreement morpheme is only elicited by pronominal possessors; lexical possessors, whether singular or plural, only elicit the general -jA possessedness suffix on their possessum. Since the 3SG agreement suffix is zero, the -jA + Ø morpheme complex elicited by a 3SG pronominal possessor is indistinguishable from the -jA possessedness suffix elicited by a singular or plural lexical possessor. Consequently, the phonologically null possessor of a -jA-marked adjective could, in principle, be either a 3SG pro or a singular or plural ellipted lexical noun phrase. However, ellipted objects are only licensed by an antecedent in a parallel construction; the referent of an ellipted nominal cannot be identified situationally. For example, in a situation where the speaker is pointing at three boys approaching, and is wondering if his partner can recognize them, he cannot ask (30a); the plural pronoun must be spelled out as in (30b).

(30) a.*Megismer-ed   pro$_{obj}$?   b. Megismer-ed   őket?
          recognize-OBJ.2SG   recognize-OBJ.2SG   them
          'Do you recognize them?'   'Do you recognize them?'

Hence the phonologically null possessor of -*jA*-marked adjectives cannot be an ellipted lexical noun phrase (except for parallel coordinate or question–answer constructions). A possibility is to identify it as a pro possessor, eliciting an invariant (default 3SG) agreement suffix on the possessum.

Default agreement also appeared elsewhere in Hungarian grammar. Early Old Hungarian abounded in non-finite subordinate constructions, which tended to have subjects of their own eliciting agreement on the non-finite verb—see (31a). These constructions have evolved either into finite subordination, or into canonical non-finite subordination involving a non-finite verb with a PRO subject and no agreement (31c). As shown by Dékány (2012), an intermediate stage in this process was the appearance of default, i.e., 3rd person singular, agreement on the non-finite verb with no regard to the person and number of its subject (31b).

(31) a. ne   akariatoc   fel-**n-etec**
         not   want.IMP.2PL   fear-INF-2PL
         'don't want to be afraid'   (München Codex (1416/1466) 42ra)

     b. Ne   akaryatok   **feel-ny-e**
         not   want.IMP.2PL   fear-INF-3SG
         'do not want to be afraid'   (Jordánszky Codex (1516) 55)

     c. Ne   akaryatok   ty   **ffel-ny**
         not   want.IMP.2PL   you   fear-INF
         'do not want to be afraid'   (Jordánszky Codex (1516) 450)
                                                          (cited from Bacskai-Atkari & Dékány (2014: 175-176).

Another possible analysis of the -*jA* appearing on adjectives is to assume that it has fully grammaticalized into a derivational suffix; it has developed into a nominalizer conveying partitivity, evoking the presence of a superset only on the notional level. These two possibilities may very well represent two subsequent stages of a grammaticalization path, which some adjectives, e.g. *kövérje* 'fat-of-meat', *fehérje* 'egg-white', *sárgája* 'egg-yolk', have passed all along, whereas others are in the process of completing. This grammaticalization path includes the following stages:

(32) *The grammaticalization path* of -jA
(i)   3SG agreement: a   pro$_i$ nagy-Ø-ja$_i$
                                   the   big-N-POSS.3SG 'its major part'
(ii)   Default agreement: a   pro$_i$ nagy-Ø-ja$_i$
                                   the   big-N-POSS   'its/their major part'
(iii) [+partitive] nominalizer: a nagy-ja
                                   the big-N.PART 'the major part'

By the end of the grammaticalization path, the nominalized adjective loses its grammatically represented pro possessor with a specific number and person feature, but maintains the partitivity and—owing to the definite article, also the definiteness —of the original possessive construction. At stage (iii), the -*jA* morpheme behaves as a derivational suffix. The [+partitive] feature of -*jA* marks the presence of a notionally given superset, which is enough to block the addition of a syntactic possessor denoted by (another) possessive agreement suffix[15]:

 (33) *A   vendég **kövér-jé-jét**   odaad-om   a   kutyának.
       the   guest   fat-JA-3SG   give-OBJ.1SG   the dog.DAT
       'I give the fat part of the guest's meat to the dog.'

In some cases, the output of the grammaticalization process in (32) has also undergone idiomatization. Thus 'in groups of two/three …' is expressed by a construction involving a numeral supplied with an adjectivalizing suffix, a nominalizing -*jA*, and instrumental case:

(34) Hárm-as-á-val   mentünk   be.
      three-ADJ-JA-with   went.1PL in
      'We went in in threes.'
    An -*ik*-less ordinal supplied with -*jA* and sublative case means 'for the 2nd, 3rd, etc. time':

(35) Harm-ad-já-ra mentünk be.
      three-ORD-JA-SUBL went.1PL in
      'We went in for the third time.'

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[15]The addition of a new possessive morpheme is only possible if the possessive suffix has become part of the stem, and the native intuition does not recognize it as a derivational suffix any more. This is what happened in the case of the Hungarian word for *protein*, which is also *fehérje*. Cf.
(i) A keratin a szaruanyagok   fehérjé-je.
    the keratin the horn.materials   protein-3SG.
    'Keratin is the protein of horn.'

7   Conclusion

This paper has described a non-canonical type of grammaticalization path: it has argued that the Hungarian *-ik* partitive suffix has grammaticalized from a 3PL possessive agreement morpheme, undergoing semantic bleaching (the loss of person and number features, i.e., the loss of referential identifiability), decategorization, and morphologial simplification.

The use of possessive agreement for the encoding of definiteness/specificity is typical of most Uralic languages, however, only the history of Hungarian is documented long enough to allow the tracking of the evolution of the non-possessive function of the agreement suffix. It has been demonstrated that the suffix *-ik*, attached to pronouns, numerals and comparative adjectives in Modern Hungarian, expressing partitivity (e.g., *minden-ik lány* 'every one of the girls' versus *minden lány* 'every girl') was in Early Old Hungarian an allomorph of the 3PL possessive agreement suffix; it cross-referenced a pro-dropped 3PL possessor on a possessum consisting of a determiner or modifier and an ellipted nominal (pro$_i$ *minden-Ø-ik*$_i$ 'every one of them'). Owing to its covertness, the pro possessor came to be ignored, and the *-ik*-marked expression, originally encoding a subset–set relation between the pronominal possessor and the possessum, assumed a general partitive interpretation, with *-ik* reinterpreted as a derivational suffix. The Hungarian 3SG possessive agreement suffix, *-jA*, is going through a similar grammaticalization process. *-jA*-marked adjectives, preceded by a definite article, can still be analyzed in most cases as possessive constructions with an ellipted nominal head; merely their pro possessor elicits default agreement. However, the possessor can also be absent altogether, in which case *-jA* behaves as a derivational suffix assigning the category 'noun' and the feature [+partitive] to the adjective. The *-jA*-marked element cannot take a further possessive suffix even in the latter case, which suggests that the suffix still evokes a possessor on the notional level, which blocks the appearance of a further possessor in syntax.

It has been debated whether the non-possessive use of possessive agreement in the Uralic languages is a relic of an atypical possessive relation with a wide range of functions in Proto-Uralic, or it is the result of an evolution from marking possession and whole-part relation to marking associability, and contextual identifiability, i.e., specificity. The Hungarian data analyzed above support the latter view: the reanalysis of possessive agreement as a marker of partitivity/specificity is the result of a grammaticalization process triggered by the possibility of a silent, hence ignorable, pro possessor. It is the silent pro that opens up the way to reanalyzing possessive agreement as a derivational suffix which conveys partitivity without denoting a possessor in syntax, expressing merely that the referent is a proper subset of a situationally or contextually given set. The different Uralic languages may differ in how "strictly" they interpret this subset relation; whether they require

a contextually or deictically identifiable superset, or they can also assume a subset relation between a referent and the larger situation that it is part of.

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