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From possessive suffix to affective demonstrative suffix in Hungarian: a grammaticalization analysis

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Abstract The non-possessive uses of possessive morphology in Uralic languages have been a topic of intense debate (Fraurud 2001; Nikolaeva 2003; Gerland 2014; Janda 2015; É. Kiss and Tánczos to appear). In this paper, I focus on a special use of the POSS.3SG suffix in Hungarian constructions such as *a hülyéje* (the stupid-POSS.3SG): lit. 'its stupid', meaning 'that total idiot'. My main claim is that this suffix is an affective demonstrative suffix (Lakoff 1974; Liberman 2008; Potts and Schwarz 2010), and that it has developed as a result of grammaticalization from a full-fledged possessive construction of the form *a világ hülyéje* (the world stupid-POSS.3SG): lit. 'the world's stupid', meaning: 'the biggest idiot in the world'. I will show that this gradual process can be reconstructed fairly accurately using historical and contemporary corpora. I also claim that this grammaticalization pathway is very natural as it is based on a set-element relationship which is often expressed by possessive constructions cross-linguistically. I also identify two parameters which facilitate this grammaticalization process: the availability of (silent) *pro* possessors and the lack of gender agreement on the possessive suffix. Since Uralic languages in general have these parameters, I will argue that this grammaticalization pathway should at least be considered as one of the possible sources of the demonstrative (and definiteness marking) uses of POSS.3SG suffixes in Uralic languages. Finally, my results are also an important contribution to the debate on whether demonstratives can be derived from other functional elements through grammaticalization (Plank 1979; Traugott 1982; Himmelmann 1997).

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1 Introduction

Non-possessive uses of possessive suffixes in Uralic languages have been a matter of debate both in terms of their category (partitive markers, determiners etc.) and their function (expressing definiteness, identifiability, contrast, emphasis etc.). Diachronically, their relationship to the possessive use is also debated: are non-possessive functions the result of grammaticalization from the 'original' possessive function (as É. Kiss and Tánczos to appear argue for Udmurt)? Or are possessive uses and non-possessive uses simply manifestations of the same underlying function of expressing 'relatedness', meaning that the non-possessive use is not a diachronic development but has always been there, inherently, in (most) Uralic languages (Fraurud 2001; Nikolaeva 2003; Gerland 2014; Janda 2015 a.o.)?

In this paper, I will chart the current functions and the diachronic development of the negative affective demonstrative (NAD) suffix in Hungarian. This suffix, while at first sight identical to the POSS.3SG[1] suffix, has rather different functions: instead of expressing possession, its main function is deictic anchoring, and it displays the typical features of affective demonstratives (Lakoff 1974; Liberman 2008; Potts and Schwarz 2010): exclamativity, speaker-hearer solidarity and evaluative predication.

I will show using corpus data how this use was grammaticalized from a bona fide possessive construction through the drop of the semantically vacuous possessor and the reinterpretation of the possessive suffix as a marker which indicates salience in terms of the property denoted by the possessum. I will show that this process exhibits the well-known parameters of grammaticalization such as semantic bleaching, structural simplification and morphological reduction, and that it can be analyzed as the semanticization of originally pragmatically inferred information (Eckardt 2006).

Based on these results, I will claim that, at least in Hungarian (the Uralic language for which historical written records are the oldest and the most extensive), this particular demonstrative-identifying function of the possessive can clearly be shown to have come about as a result of grammaticalization. Since the grammaticalization of definiteness markers from demonstratives is well-known from various language families, I will argue that the possibility of a grammaticalization chain *possessive suffix > demonstrative suffix > definiteness suffix* should at least be considered as one of the possible sources of the non-possessive uses of possessive suffixes in Uralic in general.

Note finally that is has been argued by many authors (Plank 1979; Traugott 1982; Himmelmann 1997; Diessel 1999) that demonstratives cross-linguistically constitute a principled exception to the general observation that all functional items are derived from lexical items (or other functional items) via grammaticalization. The findings of

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[1]Glosses are provided in adherence to the Leipzig Glossing Rules (Bickel et al. 2008). The most important glosses are as follows: 1SG = first person singular, 3SG = third person singular, 3PL = 3rd person plural, ACC = accusative, DAT = dative, ILL = illative, INF = infinitive, NAD = negative affective demonstrative suffix, PAD = positive affective demonstrative suffix, PART = partitive suffix, PL = plural, POSS = possessedness suffix, PRT = verbal particle, SUP = superessive.

this paper constitute a well-documented counterexample to this claim, as the affective demonstrative suffix in Hungarian will be shown to have grammaticalized from a functional element (the possessive suffix).

The paper is structured as follows. In Sect. 2, I will discuss the characteristics of the negative affective demonstrative suffix and some related constructions. In Sect. 3, I will review the relevant data on the diachronics of these constructions from the Old Hungarian period up until today. In Sect. 4, I will chart the process of grammaticalization from possessive suffix to negative affective demonstrative suffix. In Sect. 5, it will be shown that this process exhibits the typical hallmarks of grammaticalization (such as structural simplification, morphological reduction etc.). Section 6 concludes the paper.

2 The negative affective demonstrative suffix in Hungarian

2.1 The negative affective demonstrative suffix

The focus of our investigation is a special use of what appears to be the POSS.3SG suffix in Hungarian, exemplified below (glossed as NAD):

(1) A hülyé-je   robotpilótát   tákolt   a Volkswagen-jé-be.[2]
     the stupid-NAD[3] autopilot:ACC fabricated the Volkswagen-POSS.3SG-ILL
     'That total idiot built an autopilot into his Volkswagen.' (lit. 'Its stupid built
     an autopilot into his Volkswagen.')

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[2]Examples reflecting current usage are either from electronic corpora (in which case, an URL is given) or they have been constructed (for ease of exposition). All constructed examples have been checked with native speakers whose judgments on their grammaticality and felicity were robust and uniform (unless otherwise indicated). In addition, each such constructed sentence is backed up with actual sentences attested in web forums etc. which contain the same 'possessum' and are structurally identical (in the relevant sense). These examples can be checked in the data file available as supplementary material embedded in the online version of this paper. Examples reflecting historical usage are drawn from various historical corpora and individual works. (These examples and several other similar examples not included in this paper for want of space are also available in the data file.) To summarize the data sources used for each period under discussion:

- Internet discussion forums, web news sites: present-day Hungarian.
- Magyar Történeti Szövegtár (Hungarian Historical Corpus): late 18th to late 20th century, 30 million word tokens.
- Történeti Magánéleti Korpusz (Historical Vernacular Corpus): 17th to 18th century, 850 thousand word tokens: (Dömötör 2013; Novák et al. 2013).
- Ómagyar Korpusz (Old Hungarian Corpus): Old Hungarian period: 1192 to 16th century, 2.2 million word tokens: (Simon and Sass 2012; Simon 2014).
- Magyar Elektronikus Könyvtár (Hungarian Electronic Library): late 18th to late 20th century.
- GoogleBooks: late 18th to late 20th century.

The examples given in Sects. 5.2 and 4.3 illustrate well-known and non-contested data and facts of Hungarian syntax (concerning the structure of the DP and of swearword construction). Because of this, no source is provided to these examples, neither are they included in the downloadable data file.

[3]While this suffix is phonologically identical to the POSS.3SG suffix (in most respects, see Sect. 5.5 for details), I will argue that is in fact a separate negative affective demonstrative suffix. Because of this, I gloss it throughout as NAD = negative affective demonstrative.

Such apparently POSS.3SG-marked phrases denote an individual who is salient in the discourse along the property denoted by the adjective which carries the possessive suffix: the individual denoted by *a hülyéje* in (1) is a person who is saliently stupid within the physical or discourse context.

In terms of morphology and syntax, while phrases such as *a hülyéje* display what appears to be possessive morphology, the DP *a hülyéje* is certainly not a possessive construction. While it would be technically possible to parse the DP *a hülyéje* as a possessive construction with a phonologically null 3SG *pro* possessor (*a Ø_{pro} hülyéje* 'his/her/its stupid one'), in the uses exemplified by (1), there is clearly no possessor (no antecedent or deictic referent of any kind).[4]

An important characteristic of this construction is that it conveys heavy emphasis,[5] one reflection of which is that it is typically used in exclamations:

(2)   A   hülyé-je!
        the stupid-NAD
        'That total idiot!'

This construction is productive: it can be freely used with novel words:[6]

(3)   A   lúzer-je   megint el   tévedt.
        the loser-NAD again   PRT got.lost
        'That total loser got lost again.'

One important limitation, however, is that it can only be used with negative adjectives/nouns. Positive adjectives/nouns are only admissible with an ironic reading:[7]

(4)   a.   *A okos-a   minden nehéz példát rögtön meg oldott.
             the clever-NAD every   difficult problem at.once PRT solved
             'That total genious solved every difficult problem in no time.'

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[4]For details on the possessive in Hungarian, see Sects. 4.3 and 5.2.

[5]This emphasis is reflected in the fact that the most natural way to translate these phrases into English involves the use of an intensifying adjective such as *bloody, damn, total, utter* or *complete*:

(i)   A   hülyé-je!
        the stupid-POSS.3SG
        'That bloody/damn/total/utter/complete idiot.'

For the sake of uniformity, I will use *total*, which is probably the most neutral of these intensifiers, in the translations.

[6]Bartos (2000, 672) claimed that this use of the POSS.3SG suffix is limited to certain idiomatic expressions. This, however, is clearly not the case: this construction can be used with any adjective/noun which can express an emphatically negative evaluation (see datafile).

[7]Adjectives connected to luck or good fortune represent an apparent exception to this generalization: they are acceptable even though they are not, at first sight, negative (see also database):

(i)   A   mázlistá-ja   készülés   nélkül   át ment a vizsgán.
        the lucky-POSS.3SG preparation without PRT went the exam:SUP
        'That lucky bastard passed the exam without any preparation.'

Note, however, that in such sentences too, the speaker expressses an emphatic negative attitude, conveying strong envy and/or the opinion that the good fortunes of the person concerned are undeserved.

    b.   Az okos-a   már   megint nem értett   semmit.
        the clever-NAD already again   not   understood nothing:ACC
        'Once again, that total genius had no clue about anything.'

A neutral noun can only be used in this construction if the negative stance is expressed by way of a modifying negative adjective:

(5)   #A gyalogos-a-i   nem le léptek elém!?
         the pedestrian-NAD-PL NEG PRT stepped in.front.of.me
         'Those pedestrians stepped right in front of my car, didn't they?'
         A pofátlan gyalogos-a-i   nem le léptek elém!?
         the pesky   pedestrian-NAD-PL NEG PRT stepped in.front.of.me
         'Those pesky pedestrians stepped right in front of my car, didn't they?'

Negative nouns which in themselves express an inherently negative evaluation are admissible without a modifying adjective:

(6)   Zsarolással   győzött a   szélhámos-a.[8]
         blackmail:INS won   the conman-NAD
         'That total conman won by resorting to blackmail.'

The construction is limited to [+animate] nouns:

(7)   *Az ócska   kocsi-ja már   megint le   robbant.
         the old.useless car-NAD already again   PRT exploded
         'That old and useless car broke down again.'

The NAD-suffixed element can be pluralized:

(8)   A szerencsétlen-je-i   le   késték   a   repülőt.
         the unfortunate-NAD-PL PRT were.late the plane:ACC
         'Those poor unfortunates missed their flight.'

In terms of discourse function, this suffix expresses either deictic anchoring (to the physical context) (9) or anaphoric anchoring (to the discourse) (10):

(9)   Nézd,   mit csinál a   marhája!
         look:IMP:2SG what does   the cow-NAD
         'Look what that total fool is doing!'
(10)   Hallottad,   mit csinált a   marhája?
         hear:PAST:2SG what did   the cow-NAD
         'Have you heard what that total fool did?'

These correspond to the two functions of demonstratives identified in Hawkins's (1978) taxonomy: immediate situation use and direct anaphoric use. In addition to demonstrativeness as a discourse function, this suffix is also a demonstrative suffix

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[8]Source: https://webcache.googleusercontent.com/search?q=cache:jIvgSKaJeA4J:https://disqus.com/home/discussion/gamestarhu/botrany_a_dreamhacken_a_blizzard_feleskudott_a_rasszizmus_ellen/+&cd=6&hl=en&ct=clnk&gl=hu.

in terms of its syntactic behaviour. This is indicated by the fact that it is in a strict complementary distribution with the demonstrative determiner:[9]

(11) a. Hallottad, hogy   az   a marha már megint mit   csinált!?
          heard   that$_{COMP}$ that$_{DEM}$ the cow yet again   what did
      b. Hallottad, hogy   a marhá-ja már megint mit   csinált!?
          heard   that$_{COMP}$ the cow-NAD yet again   what did
      c. *Hallottad, hogy   az   a marhá-ja már megint mit   csinált!?
          heard   that$_{COMP}$ that$_{DEM}$ the cow-NAD yet again   what did
          'Have you heard what that fool has done again?'

Phrases containing this suffix are obligatorily definite. In fact, in parallel with the prenominal demonstrative modifier, this suffix is only acceptable with an overt definite article:

(12) a. Nézd,   egy hülye szembe megy a forgalommal.
          look:IMP:2SG a   stupid opposite goes the traffic:INS
          'Look, an idiot is driving in the wrong direction!'
      b. * Nézd,   egy hülyé-je   szembe megy a forgalommal.
          look:IMP:2SG a   stupid-NAD opposite goes the traffic:INS
          '*Look, a total idiot is driving in the wrong direction!'
      c. Nézd,   a hülyé-je   szembe megy a forgalommal.
          look:IMP:2SG the stupid-NAD opposite goes the traffic:INS
          'Look, that total idiot is driving in the wrong direction!'

This leads us to conclude that this suffix is a demonstrative both in terms of its discourse function and its syntax. A detailed analysis of the syntactic position of this suffix will be provided in the section on grammaticalization (Sect. 5.2).

In the remaining part of this section, I will show that the suffix under discussion is an example of a special kind of demonstrative: the so-called affective/emotional[10]/recognitional demonstrative (Lakoff 1974; Prince 1981; Bowdle and Ward 1995; Diessel 1999; Wolter 2006; Liberman 2008; Potts and Schwarz 2010). The hallmarks of affective demonstrative usage are evaluative predication,[11] speaker-hearer solidarity, familiarity and exclamativity. Consider (adapted from Lakoff 1974):

(13)   How is that throat?

(14)   That Henry Kissinger sure knows his way around Hollywood!

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[9]In Hungarian, prenominal demonstrative modifiers obligatorily co-occur with the definite article (see Sect. 5.2).

[10]Lakoff (1974) argues that demonstratives have the core function of expressing proximity to/distance from the speaker, whether this proximity is spatio-temporal or emotional.

[11]Consider (example adapted from Bowdle and Ward 1995; Potts and Schwarz, 2010):

(i)   *Those IBM Thinkpads are amazing new laptop computers!*

(ii)   *#Those IBM Thinkpads have plastic cases!*

(13) or (14) can only be uttered felicitously if:

- the sentence expresses an evaluative predication (*that throat* implicitly means: *that painfully sore throat*, *that Henry Kissinger* implicitly means *that wily Henry Kissinger*);
- there is speaker-hearer solidarity: it is assumed that the speaker and the hearer share the same view and attitude concerning the throat and Henry Kissinger, respectively;
- the condition of familiarity is satisfied: the referent of the demonstrative-headed phrase is familiar to both the speaker and the hearer.

Note that the construction under examination in this paper meets all these criteria. We have seen in (4)–(6) that evaluativity is a necessary condition. In terms of the requirement of familiarity (which is a precondition of speaker-hearer solidarity), consider the following situations, especially the contrast between (15a) and (15b):

(15) Two friends are walking down the street. One of them notices a stranger engaged in ridiculous behaviour. Pointing at the stranger, ha asks his friend:

 a. Ki az a marha?
  who that the cow
  'Who is that fool?'

 b. #Ki a marhá-ja?[12]
  who the cow-NAD
  'Who is that total fool?'

(16) Two friends (A and B) are talking. One of them starts a new line of conversation:

 A: Képzeld,   tegnap találkoztam Jánossal.
   imagine:IMP:2SG yesterday meet:PAST:1SG John:INS
   'Imagine, yesterday I met John.'

 B: Na és mit csinál a szerencsétlen-je? Még mindig munkát keres?
   so and what does the unfortunate-NAD yet always work:ACC seeks
   'And what is that poor unfortunate doing? Is he still looking for a job?'

In the first situation (15), the point of the question is the identity of the referent of the suffix-marked phrase. However, since this is an affective demonstrative construction, the assumption is that the hearer and the speaker are familiar with the referent, therefore, a question aiming to establish the referent's identity is infelicitous. The same question with a prenominal demonstrative (15a) is perfectly acceptable as non-affective demonstratives face no such requirement of familiarity. Affective demonstratives can also appear in a question if it is not directed at the identity of their referent (16).

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[12](15b) is completely unacceptable to native speakers. (The author conducted an informal survey with more than a dozen informants and the judgments were robust and uniform.)

Recall also that this construction is typically used emphatically, often in exclamations, which is consistent with the feature of exclamativity associated with affective demonstratives.

We have seen that this construction is limited to negative (or ironically used positive) evaluative statements (see (4) above). Note also that the most natural Hungarian paraphrase of this construction using the prenominal demonstrative modifier makes use of the distal demonstrative *az* 'that':

(17)   a.   Hallottad, mi   történt   Jánossal?
           heard:2SG what happened John:INS
           'Have you heard what happened to John?'

       b.   A marhá-ja / Az a   marha / #? Ez a   marha megint össze törte
           the cow-NAD / that the cow   /   this the cow   again PRT broke
           a   kocsiját.
           the car:POSS.3SG:ACC
           'That total fool / That fool / This fool smashed his car again.'

Also, in the English translations, the distal demonstrative sounds much more natural than the proximal demonstrative. This is, in fact, not surprising: Potts and Schwarz (2010) have shown through corpus linguistic analysis that in English, negative (and ironic) evaluations are typically expressed using the distal demonstrative, whereas positive evaluations are typically expressed using the proximal demonstrative.

The suffix under examination can be classified as a negative affective demonstrative suffix, that is, an affective demonstrative suffix that can only express a negative evaluation. This naturally begs the question why there is not also a positive affective demonstrative suffix in Hungarian? One possible explanation is that this construction was heavily influenced by an analogous construction (the swearword construction) which was strictly limited to negative contexts (see Sect. 4). Note also that as shown by Potts and Schwarz (2010) for English, the labour of negative vs. positive evaluation is often divided between distal and proximal demonstratives. In Hungarian (as in many other languages, see Woodworth 1991; Diessel 1999, 150–152), the proximal and the distal prenominal demonstrative modifier are distinguished from each other by vowel quality (frontness vs. backness):

(18)   a.   *ez*   ([ɛz]   'this'):   proximal prenominal demonstrative
       b.   *az*   ([ɒz]   'that'):   distal prenominal demonstrative

Most suffixes in Hungarian follow vowel harmony, including the possessive suffix, the source of the negative affective demonstrative suffix: they display front-back alternation, which is essentially a function of the front-back quality of the vowel(s) of the word that they are suffixed to:[13]

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[13]For a recent overview on the complex topic of vowel harmony in Hungarian, see Rebrus and Törkenczy (2015).

(19) a. kalap   kalap-ja
          [kɒlɒp]   [kɒlɒpjɒ]
          hat   hat-POSS.3SG
          'hat'   'its/her/his hat'

      b. szelep   szelep-je
          [sɛlɛp]   [sɛlɛpjɛ]
          valve   valve-POSS.3SG
          'valve'   'its/her/his valve'

This means that the development of a proximal-distal pair from the POSS.3SG suffix is blocked. The standard encoding of the proximal vs. distal distinction would be through vowel alternation, however, this would clash with the more basic, morphophonological rule of vowel alternation exemplified above. A hypothetical proximal affective demonstrative suffix -*je* [jɛ] and a hypothetical distal affective demonstrative suffix -*ja* [jɒ] would breach stem-suffix vowel harmony whenever attached to a word of opposite front-back vowel status:

(20) a. *a drágá-je
          the precious-PAD
          '(hypothetical:) this total sweetie'

      b. *a hülyé-ja
          the stupid-NAD
          'that total idiot'

This means that as long as the phonologically conditioned vowel alternation rule is active, the affective demonstrative suffix in Hungarian cannot come in a neat proximal (positive)—distal (negative) pair.[14] This technically leaves open two options: the affective demonstrative suffix can either be neutral to negativity/positivity, or it can be limited to either positive or negative evaluations. As we have seen above (4), the affective demonstrative suffix in Hungarian is limited to negative evaluations.

To summarize, while the suffix in this construction is morphophonologically the same as the POSS.3SG suffix,[15] it is obvious that no possessive construction is present, and that the function of this suffix is that of a negative affective demonstrative suffix,

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[14]A reviewer notes that since phonologically conditioned vowel alternation is not an absolute rule in Hungarian (i.e., there exist suffixes which are non-alternating), it would be possible for Hungarian to innovate to the hypothetical situation exemplified in (20). That is indeed a technical possibility, however, it would require the suspension of the phonologically conditioned vowel alternation rule with regard to the affective demonstrative suffix and the near-simultaneous innovation of a semantically conditioned vowel alternation rule. My point here is that while the pervasiveness of phonologically conditioned vowel harmony in Hungarian does not strictly speaking rule out the innovation of (20), it certainly makes it very difficult.

[15]This statement will be qualified in Sect. 5.5 where we discuss grammaticalization-related morphological reduction.

displaying hallmarks of evaluative predication, speaker-hearer solidarity, familiarity and exclamativity.[16]

2.2 Related constructions: the positive affective demonstrative suffix

Note that there is a very limited set of positive adjectives (terms of endearment such as *aranyos* 'cute', *drága* 'precious', *édes* 'sweet') which can carry the affective demonstrative suffix, and this construction then expresses positive evaluation:

(21) Még él   a   kis aranyos-a, de *a* nappaliban   folytatja
      yet   lives the little cute-PAD   but the living.room-in continues
      életét.[17]
      life:POSS.3SG:ACC
      'This little cutie is still alive, but she will be staying in the living room from now on.'

These adjectives are all used as terms of endearment to refer to a 'significant other': a romantic partner or a close relative:

(22) Minden   rendben, Ø   édes-em?
      everything all.right pro.1SG sweet-POSS.1SG
      'Is everything all right, sweetie?'

(23) Ha valaki*i* a Ø*i*   drágá-já-t   el akarja vinni   egy
      if someone the pro.3SG precious-POSS.3SG-ACC PRT wants take:INF a
      romantikus helyre,   ajánlom[...]
      romantic   place:unto recommend:1SG
      'If someone wants to take their precious one (= their significant other) to a romantic place, I recommend...'

The positive affective demonstrative construction is limited to a handful of adjectives (and, as I will argue in Sects. 4.1.2 and 4.2, is derived from a separate grammaticalization pathway); productively, an affective demonstrative suffix can only be attached to negative adjectives/nouns or to neutral nouns modified by negative adjectives. The most accurate characterisation of the situation is that modern Hungarian has two affective demonstrative suffixes (which are homophonous): the negative affective demonstrative suffix (which is limited to negative adjectives but otherwise fully productive) and the positive affective demonstrative suffix (which is limited to a handful of positive adjectives, namely, certain terms of endearment). Since these two

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[16]Note that while many languages such as English do not have purely affective demonstratives (that is to say, it is spatial demonstratives which can also be used in an affective function), there are languages noted in the literature which have demonstratives restricted to affective usage. Several Australian languages have such dedicated affective (or recognitional) demonstratives according to Himmelmann (1997, 62–71). Coptic has a series of definite determiners which have been traditionally analyzed as affective demonstratives (Polotsky 1968; Egedi 2017).

[17]Source: http://webcache.googleusercontent.com/search?q=cache:LKlYpRGSpEUJ:ask.fm/mokika1111+&cd=1&hl=en&ct=clnk&gl=hu.

suffixes are morphophonologically identical and functionally similar, it is possible that one day, these paradigms will merge and a neutral affective demonstrative suffix will emerge.[18] However, as of today, this is clearly not (yet) the case as the affective demonstrative suffix is not acceptable with the vast majority of positive adjectives (as shown in (4) above).

2.3 Related constructions: the 'world possessor—salient possessum construction'

For some speakers of Hungarian, a construction is available which is very similar to the NAD construction discussed above in (1). Consider:

(24) A világ hülyé-je   robotpilótát   tákolt   a
      the world stupid-POSS.3SG autopilot:ACC fabricated the
      Volkswagenjébe.[19]
      Volkswagen:POSS.3SG: into
      'The total idiot built an autopilot into his Volkswagen.' (lit. The world's
      stupid built an autopilot into his Volkswagen.)

That is, it is possible for some speakers to express a meaning similar to the NAD-suffixed construction by using a real possessive, albeit with a semantically rather vacuous and abstract *világ* 'world' possessor.

While these two constructions are similar in terms of their emphatic nature and the fact that the referent is salient along a property denoted by the possessum, there are several crucial differences to note. The NAD-suffixed construction is not a possessive construction, whereas the 'world possessor' construction is a bona fide possessive construction. Also, the NAD-suffixed construction is interpreted as a demonstrative, whereas the 'world possessor' construction is not. This is shown by the fact that the 'world possessor' construction can stand with the indefinite article, while demonstrative phrases in Hungarian are obligatorily definite:

(25) a. János egy világ marhá-ja.
          John a   world cow-POSS.3SG
          'John is a total fool.'

      b. *János egy marhá-ja.
          John a   cow-NAD
          'intended: John is that total fool.'

      c. János egy marha.
          John a   cow
          'John is a fool.'

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[18] Note that demonstratives lacking a distance feature are well known from several languages, cf. Himmelmann (1997, 53–62) and Diessel (1999, 38–48).

[19] Source: http://webcache.googleusercontent.com/search?q=cache:1gV42AumRS0J:www.vezess.hu/vezetunk/2016/07/14/a-vilag-hulyeje-robotpilotat-takolt-volkswagenjebe/+&cd=1&hl=en&ct=clnk&gl=hu.

What is shared by these two constructions (negativity, emphasis, salience along a property) is due to the path of grammaticalization, which will be discussed in more detail in Sect. 4.

Importantly, whereas the NAD-suffix is fully productive, the abstract world possessor construction is synchronically only available to some speakers of Hungarian.[20] For the majority, it survives only in a few fossilized, archaic idiomatic phrases such as *a világ lustája* (lit. 'the world's lazy', meaning a very lazy person in an ironically pejorative sense).[21]

2.4 Related constructions: the community possessor—maximal possessum construction

There is another somewhat similar construction in Hungarian: the community possessor—maximal possessum construction. Consider:

(26)   Az iskola szép-e   nem jött el a   szalagavatóra.
        the school beautiful-POSS.3SG not came PRT the prom:unto
        'The most beautiful girl/guy in the school missed the prom.'

This construction selects from the set denoted by the possessor that member which is maximal on the scale denoted by the adjective possessum: in (26), the most beautiful pupil of the school. Note that this is different from what happens in the 'world possessor—salient possessum' case, where a salient member of the possessor set is denoted (not necessarily maximal).

The construction can be pluralized:

(27)   Mi voltunk a   falu   rossz-a-i,   a   fekete bárányok.
        we were   the village bad-POSS.3SG-PL the black sheep:PL
        'We were the rogues of the village, the black sheep.'

This construction is limited to certain possessor-possessum pairs. It works best with a couple of basic, natural communities as possessors (*falu* 'village', *város* 'town', *világ* 'world in the non-abstract sense: the physical universe', *iskola* 'school', *egyetem* 'university' etc.) and certain basic qualities as possessums:

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[20]Most of my informants have either no or only a passive knowledge of this construction. However, the fact that it does survive synchronically is attested by numerous instances on internet discussion forums.

[21]Before we proceed, consider below a construction that may be superficially similar to what we have discussed so far as it also has *világ* 'world' as the possessor:

(i)   A világ (minden/összes) pénz-e   nem elég   neki.
        the world every/all   money-POSS.3SG not enough for.him
        'All the world's money is not enough for him.'

This construction, while superficially similar, has in fact nothing to do with the constructions under examination in this paper. The possessor is not the world in the abstract sense (totality of individuals) but the physical universe. The 'possessum' is not an adjective but a noun, and what the whole construction denotes is not a salient element of a set, but rather, the totality of what is denoted by the possessum (which can be expressed explicitly by optionally inserting a universal quantifier).

(28) a. *az iskola rossza*   'the worst kid in the school"
      b. *a falu vénje, a falu öregje*   'the eldest member of the village community'
      c. *a világ szépe*   'the most beautiful person in the world'
      d. *a falu okosa*   'the smartest person of the village community'
      e. #*az iskola szorgalmasa*   'the most diligent child in the school'
      f. #*a falu szerencsése*   'the luckiest person in the village'
      g. #*az egyetem marhája*   'the dumbest idiot at the university'

In this construction, the POSS.3SG suffix has a collateral function of nominalization: though on the surface, it is attached to an adjective, I assume that there has to be a (silent) nominal projection above the adjective since a possessive agreement suffix can only merge with an N head (cf. É. Kiss 2018 for a similar analysis of the nominalizing function of partitive POSS.3SG suffix). In terms of the origins of this construction, I believe it is reasonable to assume a construction with a phonetically spelled-out but semantically redundant (almost vacuous) noun possessum. Consider:

(29) a. a falu   rossz lakos-a
          the village bad   inhabitant-POSS.3SG
          'the worst-behaved inhabitant of the village'
      b. az iskola szép   diák-ja
          the school beautiful student-POSS.3SG
          'the most beautiful pupil of the school'

Note that *falu* 'village' in this sense denotes the totality of its inhabitants (*lakos*), and *iskola* 'school' denotes the totality of its students (*diák*). This means that the possessed nouns in (29) are semantically vacuous and redundant: they convey no extra information in addition to what is already conveyed by the possessor: they simply act as placeholders, so to speak, to stand in for an otherwise unspecified, generic element of the set denoted by the possessor. As a consequence, their deletion causes no loss of information content:[22]

(30) a. a   falu   rossz   ~~lakos~~-a   > a   falu   rossz-a
        the village bad   inhabitant-POSS.3SG   the village bad-POSS.3SG
        'the worst-behaved inhabitant of   'the worst-behaved
        the village'   inhabitant of the village'
     b. az iskola szép   ~~diák~~-ja   > az iskola szép-e[23]
        the school beautiful student-POSS.3SG   the school beautiful-POSS.3SG
        'the most beautiful pupil of   'the most beautiful
        the school'   pupil of the school'

Similar deletion mechanisms in Hungarian are widespread. Consider a situation where a group of children are handed out small plastic toys of different colours and

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[22]This analysis can be extended to the partitive construction as well (see Sect. 2.5 below):

(i)   a   munka nagy ~~rész~~-e   > a   munka nagy-ja
        the work big part-POSS.3SG   the work big-POSS.3SG

[23]The allomorphs of POSS.3SG will be discussed in more detail in Sect. 5.5.

are comparing who has received what. The possessed noun with minimal semantic content can be suppressed and then the possessive suffix appears on the adjective:[24]

(31) a. Neked   van ilyen zöld izé-d?
          you:DAT is   such green thingy-POSS.2SG
          'Do you have such a green thingy?'
      b. Neked   van ilyen zöld-ed?
          you:DAT is   such green-POSS.2SG
          'Do you have such a green thingy?'

In terms of semantic analysis, note that definites have long been identified as 'supremum extractors' (Westerståhl 1985). In this construction, the possessor denotes the context over which the supremum extraction operates:

(32) a falu   hülyé-je
      the village stupid-POSS.3SG
      'the stupidest person in the village'
      $\max_{\text{stupid}}(\text{village}) = \iota x. \forall y (y \in \text{village} \rightarrow y \leq_{\text{stupid}} x)$

Such constructions, of course, are cross-linguistically well attested (cf. English *the stupid one of/in the family*).

Finally, note that *világ* 'world' can appear as a possessor in this construction as well:

(33) A 50-es években Gábor Zsazsa volt a   világ szép-e.
      the 50-ish years:in Zsa Zsa Gabor was the world beautiful-POSS.3SG
      'In the '50s, Zsa Zsa Gábor was considered the most beautiful woman on earth.'

2.5 Related constructions: the partitivity suffix in Hungarian

Before we proceed with the analysis, it is important to briefly review a somewhat similar construction analyzed by É. Kiss (2018): the partitivity suffix (PART) which is morphophonologically similar and historically related to POSS.3SG:

(34) A (gyümölcs) zöld-jé-t   be főzöm,   az érett-jé-ből
      the (fruit)   green-PART-ACC PRT preserve:1SG the ripe-PART-ELA
      lekvárt   csinálok.
      jam:ACC make:1SG
      'The green pieces of fruit, I preserve, from the ripe ones, I make jam.'

(35) A (munka) nagy-ja   még hátra van.
      the (work) big-PART yet back is
      'The major part of the work is yet to be done.'

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[24]This is not limited to possessive constructions. Consider:

(i)   Piros labdá-t   kérsz   vagy zöld-et?
      red   ball-ACC ask:2SG or   green-ACC
      'Do you want a red ball or a green one?'

In É. Kiss's (2018) analysis, these constructions denote a set-subset or whole-part relation. The 'possessor' denotes a set (the set of fruits in (34)) or a whole (the work to be done in (35)). In case the 'possessor' is a set, the whole construction denotes the intersection of the 'possessor set' and the property denoted by the partitive-suffix-marked adjective, which is a subset of the 'possessor set': out of the set of fruits, the pieces of fruit which are green. In case the possessor is a whole, the construction denotes a part by referencing the whole (denoted by the 'possessor') and the relative size of the part to the whole (denoted by the partitive-suffix-marked adjective).[25]

3 The diachronic facts

In this section, I will review the historic availability of the three constructions that will be relevant for our grammaticalization analysis: the 'community possessor—maximal individual' construction (*a falu szépe* 'the most beautiful person in the village'), the 'abstract world possessor—salient individual' construction (*a világ hülyéje* '*the total idiot*') and the negative affective demonstrative construction (*a marhája* 'that total fool'). In addition to whether these constructions can be found in the relevant corpora, I will be also looking at whether the properties of and the restrictions on each construction have changed over time. The situation in current-day Hungarian is summarized below (based on the findings of Sect. 2):

(36)

Type	comm.—maximal ind.	world—salient. ind.	NAD
Possessor	natural community	abstract world	none
Possessum features	animate, closed set	animate, emph, neg	animate, emph, neg
Possessum category	adjective	adjective	adjective, noun
Function of suffix	possession	possession	demonstrative
Denotation	maximal individual	salient individual	salient individual

3.1 The 'community possessor—maximal individual' construction

Diachronically, this construction is attested already in Early Old Hungarian: *falu véne* meaning 'the elder of the village, village headman' is attested in the form *folwyene* from as early as 1247, as the name of a beneficiary of a diplom issued by King Béla IV in 1247 (Pais 1922, 99).

From the Middle Hungarian period, the construction is attested in forms such as *ország latra* (country evildoer-POSS.3SG) 'the most notorious evildoer of the country'. (Balázs Szikszai Fabricius: Nomenclatura seu dictionarium latino-ungaricum. 1590.) In early Modern Hungarian texts, the construction is amply attested: e.g. *faluszépe* 'the most beautiful person in the village' is listed in the well-known Czuczor-Fogarasi dictionary (1862), consider also:

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[25]To a very limited degree, this construction is synchronically available with community (or [+human/animate]) possessors as well (see database).

(37) Nem sokára el jött a' falu vénje, [...]
not later PRT came the village old-POSS.3SG
'Soon, the elder of the village arrived, [...]'
(Regélő: Első magyar szépművészeti folyóírás. 1833.[26])

As far as current usage is concerned, this construction is available but limited in terms of possessors (natural communities) and possessums (adjectives expressing certain basic qualities). Based on the limited historical data available, these restrictions seem to have applied in earlier periods as well.

3.2 The 'world possessor—salient individual' construction

This construction is not attested from the Old Hungarian period (based on a search of the Old Hungarian electronic corpus). It is sporadically attested from the Middle Hungarian period:

(38) [...] szemtelen ördöghöz hasonló vagy, [...] világ latr-a
       impertinent devil:unto similar are world evildoer-POSS.3SG
'[...] you are like an impertinent devil, [...] a most wicked evildoer'
(Péter Alvinczi: Egy tetetes, neve vesztett pápista embertől... küldetett szines öt levelekre rend szerint való feleleti. 1609.)

It is amply attested from the beginning of the 19th century onwards:

(39) Majd nevet majd sir a mint kedve hozza [...] Némelly
then laughs then cries that how mood:POSS.3SG brings some
igen jó némelly világ rossz-a
very good some world bad-POSS.3SG
'In one moment, he is laughing, in the next, he is crying, [...] some are very well-behaved, some are very naughty.'
(Mátyás Horváth: Nyugodalom munkája, avagy: Erkölcsi könyvecske. 1815.[27])

In these earliest instances (see database), the adjectives are all from the set of basic adjectives that we identified in connection with the *falu rossza* 'the worst-behaved guy in the village' construction (see Sect. 2.4). This is a general tendency: up until the second half of the 19th century, the 'abstract world possessor' construction seems to be mostly limited to these basic adjectives. This is a strong indication that the 'world possessor' construction was diachronically derived from the *a falu rossza* 'the worst-behaved guy in the village' construction, as it was subject to the same limitations. Later, this restriction on the set of adjectives gradually loosened to admit all kinds of positive and negative adjectives (see database): the 'world possessor—maximal individual' construction became truly productive (see Sect. 4.2 for details).

While this construction is no longer productive to the majority of native speakers of Hungarian (see Sect. 2.3), for those speakers who have access to this construction,

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[26]Source: https://books.google.hu/books?id=hrtKAAAAcAAJ&pg.

[27]Source: https://books.google.hu/books?id=H8NTAAAAcAAJ.

its use is restricted to negative adjectives and emphatic usage. This means that during the second half of the 19th century and the first half of the 20th century, two changes occurred: the use of this construction became limited to negative adjectives and the construction itself ceased to be productive for many speakers. In Sect. 4, I will analyze these changes in detail.

3.2.1 The negative affective demonstrative construction

The first instances of the negative affective demonstrative construction date from the middle of the 19th century:

(40)   Beszélnék   ám,   ha tudnék;   de az istenadta
        speak:COND:1SG though if can:COND:1SG but the god.given
        gyává-ja   még annyit sem tud   magyarul,
        cowardly-NAD yet so.much NEG knows Hungarian:as
        'I would speak if I could, but that total coward speaks no Hungarian at all.'
        (Mór Jókai: A magyar nép adomái. 1856.[28])

This construction is productive in present-day Hungarian, but it is limited to negative adjectives and emphatic usage (see Sect. 2.1). This limitation to negative adjectives was already evident in the second half of the 19th century (see database). This observation will prove important in the relative ordering of the steps of grammaticalization.

4 POSS.3SG to negative affective demonstrative suffix in Hungarian: a grammaticalization analysis

4.1 The steps of the grammaticalization process

Having reviewed the synchronic and diachronic availability of each relevant construction, now we are in the position to chart how the negative affective demonstrative suffix emerged in a process of gradual grammaticalization.

4.1.1 The emergence of the 'world possessor—salient individual' construction

As we have seen above, this construction emerged at the very beginning of the 19th century and became fully productive in the second half of the 19th century. The source was the 'community possessor—maximal individual' construction (already attested from the Old Hungarian period), exemplified by:

(41)   a   falu   rossz-a
        the village bad-POSS.3SG
        'the worst-behaved guy in the village'

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[28]Source: https://books.google.hu/books?id=AyBbAAAAcAAJ.

In its canonical form, this construction has a natural community as possessor: a village (the totality of the inhabitants of the village), a country (the totality of the inhabitants of a country) etc. In a sense, *világ* 'world' is an admissible possessor here, as it denotes a natural community (the totality of the inhabitants of the whole world). The first instances of the 'world possessor' construction were probably simply representatives a this construction:

(42)   a   falu   / iskola / világ rossz-a
        the village / school / world bad-POSS.3SG
        'the worst guy in the village/school/world'

This is corroborated by the fact that up until the second half of the 19th century, adjectives in this construction were limited to the same set of basic adjectives that we observed for the *a falu rossza* 'the worst guy in the village' construction.

Up until this point, the 'world possessor' construction was simply a case of the 'community possessor—maximal individual' construction. The first step was the subtle change of meaning from maximal individual to salient individual:

(43)   a   világ okos-a
        the world clever-POSS.3SG
        i. 'the smartest person in the world'
        ii. 'a saliently smart person'

Superlative expressions in general are often interpreted metaphorically to denote someone salient in terms of a property (not necessarily maximal). The broader the set of reference, the more likely it is that the superlative is intended in a metaphorical sense. In the case of *a falu okosa* 'the smartest person in the village', it is realistic to assume that the speaker indeed intends to refer literally to the smartest person in the village as the cardinality of the village inhabitants is such that it is feasible to enumerate all villagers and identify the smartest one of them. In the case of *a világ okosa* 'the smartest person in the world', the chances are that the speaker only intends to convey the metaphorical sense, as it is practically impossible to actually identify the single smartest person out all the inhabitants in the world. This means that in the vast majority of cases where *a világ okosa* 'the smartest person of the world' was uttered, it was meant to denote 'a saliently smart person'. Therefore, the reinterpretation of the 'world possessor' construction (*maximal individual > salient individual*) was quite natural.

Note that these two changes (salience instead of maximality, the broadening of admissible adjectives) are altogether rather subtle modifications to the semantics of the 'community possessor'. However, around the second half of the 19th century, two largely simultaneous changes changed this picture radically: the drop of the possessor and the reinterpretation of the possessive suffix.

4.1.2 The drop of the világ 'world' possessor

In this section, we will discuss how the negative affective demonstrative construction developed through the dropping of the *világ* 'world' possessor and the simultaneous reinterpretation of the possessive suffix:

(44) a világ hülyé-je   → a hülyé-je
      the world stupid-POSS.3SG   → the stupid-NAD
      'the most stupid person in the world' → 'that saliently stupid person'

The very close resemblance in meaning and structure between the two constructions hints at a common origin: 'the most stupid person—in the world' vs. 'that saliently stupid person—in the context' (note that the context is the world of conversation in a sense).

Világ 'world' as a possessor has very minimal lexical semantic content, denoting simply the totality of individuals within the possible world that we happen to be in. Dropping it from the possessive construction does not cost us much in terms of losing information content. Furthermore, there are two prominent, frequently used 'no possessor' constructions with 3SG possessive morphology which may have served as analogical support. Consider an example of the swearword construction:

(45) A hétszentség-i-t!
      the seven sacrament-POSS.3SG-ACC
      'Lit.: Its seven sacraments.'

This construction can be shown to have grammaticalized through the reinterpretation of a possessive construction (see Sect. 4.4). Since this construction is quite prominent and is used very frequently, I believe that it provided crucial analogical support in the grammaticalization of the possessive suffix itself as an emphatic marker. Even more importantly, it may have played a role in the process whereby the use of the possessive suffix as emphatic marker became limited to negative adjectives.

'The terms of endearment' construction may also have been a source of analogy (Sect. 2.2):

(46) Most épp punk a drágá-ja,   egy évvel ezelőtt még emós volt.
      now just punk the precious-PAD one year-INS before yet emo was
      'This total sweetie (ironic) happens to be a punk right now, just a year ago, he was an emo.'

Crucially, as we have seen in Sect. 2.2, many of these terms of endearment were never attested with a world possessor, as their source was probably simply the natural use of these terms as in (47) below:

(47) János$_i$ be mutatta nekünk a Ø$_i$ drágá-já-t.
      John PRT showed us   the pro.3SG precious-POSS.3SG-ACC
      'John introduced his sweetheart to us.'

The null possessor construction in these cases probably evolved along the following path of grammaticalization:

Grammaticalization of emphatic marker from terms of endearment possessive constr.

Starting point: *János drágá-ja* is a possessive construction: John precious-POSS.3SG, denoting 'John's precious one', that is, his significant other.

Step 1: due to the pervasiveness of pro-drop in Hungarian, this construction of-
ten appears with a pro: *A Ø drágá-ja* (the pro.3SG precious-POSS.3SG)
'his/her precious one'

Step 2: *A Ø drágá-ja* (the pro.3SG precious-POSS.3SG) 'his/her sweetheart' is
reinterpreted: phonetically null pro possessor → no possessor, posses-
sive suffix → emphatic marker: *a drágá-ja* the precious-PAD 'the (very)
precious one'

To summarize, the minimal lexical content made the *világ* 'world' possessor suscep-
tible to being dropped. Then, several analogous constructions (swearwords, terms of
endearment) provided analogical support in favour of reinterpreting the possessive
suffix as a marker of emphasis, and especially, a marker of negative emphasis.

Syntactic tests in Sect. 2.1 clearly showed that the NAD-suffixed phrase is a demon-
strative. That is, in addition to conveying, on the pragmatic level, salience in the con-
text (and as a result, identifiability), the suffix also encodes demonstrative status on
the syntactic level. The question is what facilitated this switch: how did the emphatic
negative suffix evolve from encoding salience on the pragmatic level to encoding
demonstrative status on the syntactic level?

Communicating that someone is salient in the context in terms of a relevant prop-
erty is, in a sense, an act of pointing him out, which is, as regards communicative
effect, very similar to using a demonstrative. Also, there are many situations (such
as exclamations) where an emphatic definite description and a demonstrative can be
used interchangeably with only a barely perceptible difference in meaning:

(48)   a.   János, a   marha, megint össze törte a   kocsi-já-t.
            John   the cow   again PRT broke the car-POSS.3SG-ACC
            'John, the idiot, smashed his car again.'
       b.   János, az a   marha, megint össze törte a   kocsi-já-t.
            John   that the cow   again PRT broke the car-POSS.3SG-ACC
            'John, that idiot, smashed his car again.'

This means that it was very easy for a negative emphatic construction to be reinter-
preted as a demonstrative construction:

(49)   a.   János, a   marhá-ja, megint össze törte a   kocsi-já-t.
            John   the cow-NAD again   PRT broke the car-POSS.3SG-ACC
            original interpretation: 'John, the total idiot, smashed his car again.'
            reinterpretation: 'John, that total idiot, smashed his car again.'

It is also easy to see why the negative emphatic suffix ended up as being reanalyzed
as a special kind of demonstrative, the affective demonstrative. Phrases with a neg-
ative emphatic suffix assert the salience of the referent along the property denoted
by the adjective, which is by nature an instance of evaluative predication. And as we
have seen, evaluative predication is one of the defining characteristics of affective
demonstratives.

4.2 The reanalysis of the possessive suffix as a negative affective demonstrative suffix—summary

The steps of the grammaticalization process can be reconstructed as follows:

Grammaticalization of negative affective demonstrative suffix from 'community possessor—maximal individual' construction

Starting point: *a világ rossza* (the world bad-POSS.3SG) 'the worst person in the world' is an instance of the 'community possessor—maximal individual' construction adjective is not limited in terms of polarity: *világ rossza* 'the worst person in the world', *világ okosa* 'the smartest person in the world' etc.
adjective is limited lexically to basic qualities: **világ szerencsése* 'luckiest person in the world' (as there is no *falu szerencsése 'luckiest person in the village')

Step 1 the construction is reinterpreted to denote salient individual instead of maximal individual: *a világ szépe* 'the most beautiful person in the world' → 'a saliently beautiful person'

Step 2 *világ* 'world' possessor is dropped due to minimal lexical content, the first step was probably the appearance of a silent but reconstructible null possessor (plausible reconstruction rule: 'reconstruct to maximal possessor in absence of cue' makes it possible to reconstruct *világ* 'world' possessor, see Sect. 4.3 for details):
a Ø szépe = a világ szépe 'a saliently beautiful person'

Step 3 instead of running the 'reconstruction to maximal possessor' rule, the construction is reinterpreted: null possessor is reinterpreted as no possessor, possessive suffix reinterpreted as emphatic marker (sources of analogy: swearword construction and terms of endearment construction)
a Ø szépe = a világ szépe (possessor+possessum) → *a szépe* (adj+emphatic marker) 'a saliently beautiful person' since connection to 'natural community plus basic adjective' construction is lost, the restriction on adjectives is lifted: non-basic adjectives become admissible: *a szerencsése* 'the very lucky one', *a szerencsétlenje* 'the very unlucky one'
> the emphatic salience suffix emerges

Step 4 due to analogy from the morphologically similar negative emphatic marker on swearwords, the emphatic marker on adjectives also develops a requirement for negativity: the negative emphatic salience suffix emerges positive adjectives are no longer admitted: *a szépe 'the very beautiful one', *az okosa 'the very smart one'
> the negative emphatic salience suffix emerges

Step 5 the discourse function of 'identifiability through salience in context' is syntacticized: the negative emphatic salience suffix is reinterpreted as the negative affective demonstrative suffix:

	a marhája 'the bloody fool' → 'that bloody fool' > the negative affective demonstrative suffix emerges
End result	the negative affective demonstrative construction: *a marhája* (the cow-NAD) 'that bloody fool' *a világ marhája* (the world cow-POSS.3SG) 'the bloody fool' construction is extinct for most (but not all) native speakers of Hungarian

Note that this grammaticalization pathway was facilitated by two characteristics of Hungarian: the pervasiveness of pro-drop and the lack of gender agreement on the possessive suffix. As we will see in Sect. 5.2, one of the main advantages of this reanalysis was that the computationally demanding task of recovering the antecedent of the (silent) *pro* possessor was eliminated (since the whole structure was reanalyzed as a non-possessive structure). The lack of gender agreement makes the antecedent recovery task (see Sect. 4.3) especially complex: gender agreement on the possessive would mean that at least the gender of the silent possessor is given, which would significantly reduce the search space for possible antecedents.

Finally, consider that it has been argued by many authors (e.g. Hopper and Traugott 1993; Himmelmann 1997; cf. Diessel 1999, 150 for an overview) that demonstratives cross-linguistically constitute a principled exception to the general observation that all functional items are derived from lexical items (or other functional items) via grammaticalization. This claim is based on the lack of any proof of grammaticalization in most of the languages examined (though Frajzyngier 1996 claims that demonstratives in many Chadic languages were grammaticalized from motion verbs and verbs of saying), and on the observation that demonstratives often have a non-arbitrary mapping between meaning and phonetic form (Sapir 1949; Ultan 1978; Woodworth 1991), which is taken to indicate that they are non-derived, 'newly created' words (Plank 1979). The fact that the negative affective demonstrative suffix in Hungarian has clearly developed in a process of grammaticalization, however, suggests that this generalization cannot be maintained in its strongest form.

4.3 The recovery of silent possessors

In Sect. 2.5, we have seen that in the case of the partitive suffix (É. Kiss 2018), a silent possessor recovery mechanism is active. Consider:

(50)   A zöld-jé-t   be   főzöm.
        the green-PART-ACC PRT preserve-1SG.
        'The green pieces, I preserve.'

The adjective *zöld* 'green, unripe' carries the feature [+fruit], and as a consequence, a possessor with the feature [+fruit] can be reconstructed. This could be *alma* 'apple', *körte* 'pear', or *gyümölcs* 'fruit'. In case of adequate contextual cues (such as the fact that we have been discussing pears before), the possessor is reconstructed to a specific fruit (in this case, to *körte* 'pear'):

(51)   A körte zöld-jé-t   be   főzöm.
        the pear green-PART-ACC PRT preserve-1SG
        'The green pieces of pear, I preserve.'

In the absence of any cues, it is reconstructed to the broadest possible concept that carries the feature [+fruit], which is, trivially, *gyümölcs* 'fruit':

(52) A gyümölcs zöld-jé-t   be főzöm.
      the fruit   green-PART-ACC PRT preserve-1SG
      'The green pieces of fruit, I preserve.'

It is plausible to assume such a reconstruction mechanism in the case of the 'community possessor—salient individual' construction as well: in the absence of any cues, reconstruct to the broadest possible [+human, +group] concept, which is of course *világ* 'world' (in the sense of the world as the totality of individuals).

4.4 Supporting evidence: possessive morphology in swearwords

In Hungarian, many swearwords carry what looks like the possessive suffix and the accusative suffix, without any possessive or accusative meaning being conveyed:[29]
   Consider below an instance of a swearword with possessive+accusative morphology:

(53) Az any-já-t!
      the mother-POSS.3SG-ACC
      'Lit.: His/Her/Its mother!'

Historically, this construction is known to be derived from a full sentence with the word *baszik* 'fuck' and a possessive construction in the accusative (cf. Ďurovič 1992):

(54) Baszom az apád   isten-i-t.
      fuck:1SG the father:POSS.2SG god-POSS.3SG-ACC
      'I fuck your father's god.' (Sándor Petőfi to Imre Vahot, cited in Sándor Petőfi's letters to János Arany. 1847)

Grammaticalization probably proceeded as follows:

- Starting point: the full sentence version is used with the verb and the possessor present: *Baszom az apád hétszentségit.* ('I fuck your father's seven sacraments.')
- Step 1: the possessor is realized a (silent) pro in many instances: *Baszom az ő hétszentségit! → Baszom a Ø$_{pro}$ hétszentségit.* ('I fuck his/her/its seven sacraments.')

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[29]The fact that these swearword exclamations are not possessive constructions is shown by the impossibility of adding to them either a dative-marked or a nominative possessor, i.e. (i) and (ii) cannot be interpreted as swearword exclamations, only as elliptical answers to the question 'Whose mother?':

(i)   *Az ő   any-já-t!
      the he/she/it mother-POSS.3SG-ACC
      'His mother!'

(ii) *Neki   az any-já-t!
      he/she/it:DAT the mother-POSS.3SG-ACC
      'His mother!'

For a detailed discussion of the possessive in Hungarian see (*inter alia*): Szabolcsi (1983, 1994), den Dikken (1999), Bartos (1999, 2000), É. Kiss (2002) and Dékány (2011).

- Step 2: the verb is often ellipted in an attempt at euphemism: ~~Baszom~~ *az apád hétszentségit!* 'Your father's seven sacraments.' ~~Baszom~~ *a Ø_{pro} hétszentségit!* 'His/her/its seven sacraments.'
- Step 3: ~~Baszom~~ *a pro hétszentségit!* '~~I fuck~~ his seven sacraments.' is reinterpreted: instead of a possessive construction in the accusative with an ellipted verb and a silent pro possessor, it is interpreted as a noun with a suffix conveying negative emphasis (which is morphologically similar to a possessive suffix plus and accusative suffix). The fact that the 3rd person possessive suffix is not gender-marked and thus only has a single version made this reanalysis considerably easier.
- Step 4: *apádnak* (father-POSS.2SG-DAT) in *a hétszentségit apádnak* is reinterpreted as not the possessor, but rather, a dative-marked recipient/beneficiary 'your father's seven sacraments' → 'seven sacraments to your father'

Fully charting the process and dating each step is beyond our scope. For our purposes here, what is important is that in the course of the 19th century, the possessive suffix plus accusative suffix compound has been grammaticalized as a negative emphatic marker, and it is likely to have provided analytical support to the emergence of the negative affective demonstrative suffix.

5 The parameters of grammaticalization: change of function, structural simplification, semantic bleaching and loss of morphology

In this section, I will show that the process whereby the negative affective demonstrative suffix was derived from the POSS.3SG possessive suffix exhibits the hallmarks of grammaticalization.

5.1 Loss of original function and acquisition of new function

The function of the original POSS.3SG suffix was trivially to express that the noun was possessed by a 3SG possessor. This function has been completely lost: the NAD suffix expresses no possession whatsoever. What it does encode, however, is a completely new function: that of demonstrativeness. In addition, the NAD suffix as an affective demonstrative also expresses (negative) evaluative predication, familiarity and speaker-hearer solidarity, which were also not part of the meaning of the original possessive suffix.

5.2 Structural simplification

Recall that a crucial step in the grammaticalization process was the reinterpretation of a possessive structure with a (silent) pro possessor (recovered by default to *világ* 'world') as a DP without a possessor (containing a negative affective demonstrative suffix). Consider:

(55) a. a $\emptyset_{pro}$ hülyé-je!
          > application of possessor recovery mechanism: $\emptyset_{pro}$ interpreted
          as *világ* 'world'
          a   világ   hülyé-je!
          the   world   stupid-POSS.3SG
          'lit.: the world's idiot, meaning: the total idiot'
      b. a   hülyéje!
          the stupid-NAD
          'that total idiot'

This is a very significant simplification of structure (and also of processing difficulty). The original is a possessive structure with a silent possessor. The identification of the antecedent of a silent element is always demanding in terms of parsing, but especially so in this case, where there is no actual antecedent, and the identity of the element for which the pro stands needs to be recovered using a special default recovery mechanism. All this complexity of structure and processing was lost when the possessive suffix was reinterpreted as a negative affective demonstrative suffix and the (silent) pro possessor as no possessor.

Before discussing the details of the structural reanalysis, a few remarks on the structure of the DP in Hungarian are in order, focusing on the position of demonstratives and on the structure of possessives. There are two prenominal positions for demonstratives in Hungarian. The unmarked case is when the demonstrative is in the high position, directly preceding the definite article:

(56) az a marha
      that the cow
      'that fool'

Note that this is a 'double demonstrative' construction, where the definite article is obligatory (for a detailed discussion see Egedi 2014 and Giusti 1994). In the standard generative analysis, the demonstrative is taken to occupy Spec,DP, and the definite article fills the D head position (e.g. Szabolcsi 1994; Bartos 2000; É. Kiss 2000).

There is also a lower, more marked and stylistically restricted demonstrative position, directly following the possessor (cf. Szabolcsi 1994; Bartos 2000; É. Kiss 2000; Egedi 2014 for Hungarian; Giusti 1994; Bernstein 1997 for Romance and Germanic):

(57) a te   ezen könyved
      the you this book:POSS.2SG
      'this book of yours'

Syntactic tests show that this position is below AgrP and above NumP. Importantly, the two demonstrative positions cannot be filled simultaneously:

(58) *ez a te   ezen könyved
      this the you this book:POSS.2SG
      'this book of yours'

Fig. 1 Tree representation of example (59)
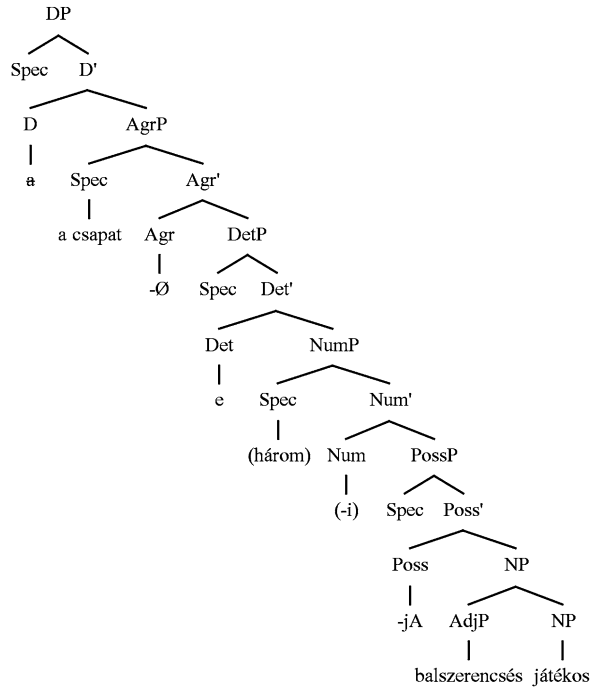
While there is no full consensus on all the details of the Hungarian DP, the outstanding issues do not affect our analysis here.[30] Below, we will assume a simplified structure based mainly on Szabolcsi (1994), Bartos (2000) and É. Kiss (2000),[31] as shown in Fig. 1 for the examples in (59):

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[30]For an overview, see Dékány (2011).

[31]Note that what we gloss in this paper as a '3rd person singular possessive suffx' (POSS.3SG) is in fact (simplifying somewhat) a compound of the possessive morpheme (POSS) and the phonologically silent 3rd person singular agreement morpheme (3SG). This simplification does not affect the analysis presented in this paper. Consider:

(i)　　ház-a-m
　　　　house-POSS-1SG
　　　　'my house'

(ii)　　ház-a-d
　　　　house-POSS-2SG
　　　　'your house'

(iii)　　ház-a-Ø
　　　　house-POSS-3SG
　　　　'its/her/his house'

-jA is shorthand for the POSS.3SG suffix (the capital -A signifying the vowel which can surface either as -a or -e dependeing on the vowel quality of the stem). Note also that Szabolcsi (1994) assumes a phonological rule which deletes the definite article whenever it is followed by a determiner on the surface: a̶ a csapat e három balszerencsés játékosa.

Fig. 2 Tree representation of example (60)
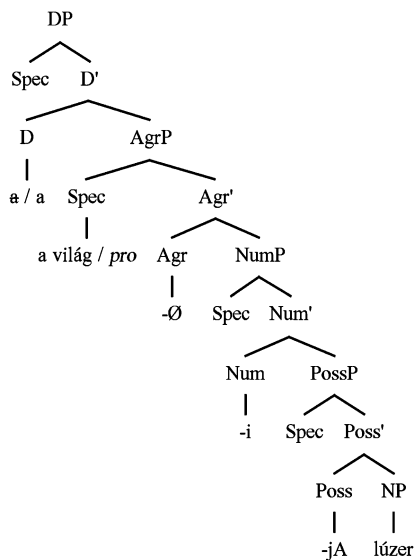
(59) a. a   csapat e   három balszerencsés játékosa
          the team   this three   unlucky   player:POSS.3SG
          'these three unlucky players of the team'
      b. a   csapat e   balszerencsés játékosai
          the team   this unlucky   player:POSS.3SG:PL
          'these unlucky players of the team'

The starting point of our analyis of reinterpretation and structural simplification is the 'world possessor' construction (either with *világ* 'world' spelled out as a lexical item or with a (silent) pro recoverable to *világ* 'world', see (55) above). Consider example (60), the structure of which is shown in Fig. 2:

(60) a   világ lúzer-je-i
      the world loser-POSS.3SG-PL
      'the total losers (lit.: the losers of the world)'

As we have seen in (55) above, this structure has been reinterpreted through the loss of the silent possessor and the reinterpretation of the possessive suffix as an affective demonstrative suffix. The most straightforward assumption would be that the Poss head has been reanalyzed as a higher Det head. This is at first sight supported by the fact that low prenominal demonstratives and the affective demonstrative suffix are in complementary distribution:

(61) a. *Nézd,   mit csinált e   marhá-ja!
          look:IMP:2SG what did   this cow-NAD
          'Have a look at what this total fool has done!'
      b. Nézd,   mit csinált e   marha![32]
          look:IMP:2SG what did   this cow
          'Have a look at what this fool has done!'

Note, however, that such a structure would in fact predict an incorrect surface form following the Mirror Principle, which is otherwise robustly observed in Hungarian (Baker 1985; Bartos 2000):

(62)   [DP a [DetP -jA [NumP -i [PossP lúzer]]]]

        *a   lúzer-i-je   (the correct form is: *a lúzer-je-i*)
        the   loser-PL-NAD
        'the total losers'

Even more problematically, we have seen that this Det head position is not normally occupied by suffixes. (The possibility of the affective demonstrative suffix occupying Spec,DP can be ruled out for similar reasons.) Note also that the fact that the lower demonstrative is in complementary distribution with the affective demonstrative suffix does not necessarily mean that they occupy the same position: high and low prenominal demonstratives also cannot cooccur, as we have seen in (58).

    In fact, the surface order of the affective demonstrative suffix and the plural suffix clearly indicates that the affective demonstrative suffix has to be situated below the Num head (and, trivially, above the NP). Since the negative affective demonstrative suffix and the possessive suffix cannot cooccur (as of today), the relative order of the PossP and this lowest DetP cannot be established:

(63)   a.   *a marhá-d-ja
            the cow-POSS.2SG-NAD
      b.   *a marhá-já-d
            the cow-NAD-POSS.2SG
            '(hypothetical) that total fool of yours'

At this point, it might seem reasonable to altogether eliminate the PossP projection from DPs with a negative affective demonstrative suffix. This, however, would be probably premature for two reasons: on the one hand, possessives and demonstratives are known to be difficult to combine in certain structures for independent reasons:

(64)   *ez a János könyv-e
     this the John book-POSS.3SG
     'this book of John'

Also, note that as of today, the possessive history of the NAD suffix is, in a sense, still visible. This is indicated by the fact that for most speakers, only the possessive-specific allomorph *-i* of the plural suffix *-k* works with the negative affective demonstrative suffix (see Sect. 5.5.2 below for more details):

(65)   a.   a lúzer-je-i
            the loser-NAD-PL
      b.   *a lúzer-jé-k
            the loser-NAD-PL
            'those total losers'

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[32]While (61b) is stylistically very marked, it is certainly grammatical. Its markedness is due to the fact that (as discussed above) lower prenominal determiners in general are marked in Modern Hungarian.
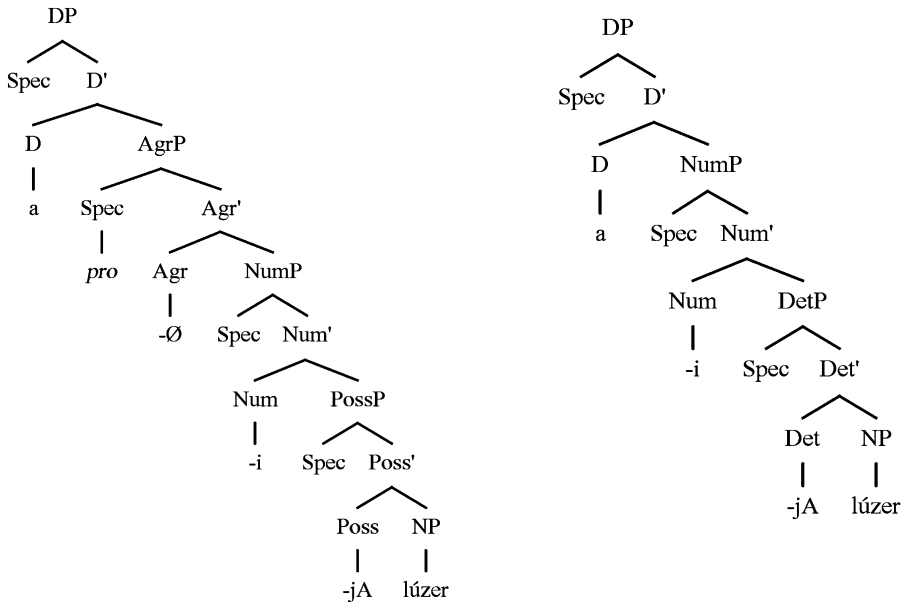
Fig. 3 Tree representation of example (67)

The ungrammaticality of (63ab) above may be due to this transparency. However, there are already signs that this transparency is receding (see Sect. 5.5.2 below), which means that in a couple of decades' time, it is not unimaginable that the possessive suffix and the negative affective demonstrative suffix will be able to combine.

Based on these considerations, I propose the following structure for the DP containing a negative affective demonstrative suffix:

(66)   [$_{DP}$ a [$_{NumP}$ -i [$_{DetP}$ -jA [$_{NP}$ lúzer]]]]

Figure 3 summarizes (with empty projections suppressed) the reanalysis of the example in (67):

(67)   *a Ø$_{pro}$ lúzerjei* (possessive) → *a lúzerjei* (negative affective demonstrative)

The benefits of this reanalysis are significant in terms of structural simplification, the elimination of silent elements and the reduction of processing difficulty. The AgrP and PossP projections are eliminated, together with the phonetically empty Agr head and the (silent) pro possessor in Spec,AgrP. This means that the computationally taxing default antecedent recovery rule also does not have to be activated.[33]

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[33]Marcel den Dikken (pc) proposed to me an alternative analysis, where phrases such as *a hülyé-je* (the stupid-POSS.3SG) 'that total idiot' could be analyzed as predicative copular constructions with the suffix functioning as the copula. Note that Hungarian has an affective construction which has been analyzed in a similar vein (den Dikken 2006):

(i)   János hülye egy orvos volt.
         John stupid a   doctor was
         'John was a stupid one of a doctor.'

5.3 Change of selection criteria

Recall that the 'community possessor—maximal individual' construction and the 'world possessor—salient individual' construction only admitted adjectives, whereas the negative affective demonstrative construction also admits nouns:

(68)   a.   #János a   falu   tűzoltó-ja.
              John   the village firefighter-POSS.3SG
              '(intended:) John is the best firefighter in the village.'[34]
        b.   #János a   világ tűzoltó-ja.
              John   the world firefighter-POSS.3SG
              '(intended:) John is an outstandingly good firefighter.'
        c.   Nézd,   mit csinál a   szerencsétlen tűzoltó-ja!
              look-IMP what does the unfortunate   firefighter-NAD
              'Look what that poor unfortunate firefighter is doing!'

This means that in the course of the grammaticalization process, the selection criteria of the suffix/construction also changed: whereas it was originally limited to adjectives, now it admits both nouns and adjectives.[35]

In den Dikken's analysis, *hülye egy orvos* 'a stupid one of a doctor' is a copular predicative construction with a missing/silent copula. This analysis could be extended to *a hülyé-je* (the stupid-POSS.3SG) 'that total idiot' by assuming that (i) it is a predicative copular construction with a silent subject, (ii) the possessive suffix is the overt version of the copula and (iii) its overt presence is required so that it can license an empty subject. While such a unified account would be appealing (see den Dikken (2015) for a copular approach to Hungarian possessedness morphology), I believe it cannot adequately account for a number of empirical observations.

First of all, as we have seen in (5) and (6) above, POSS3SG can freely appear in cases where the 'subject of predication' is overt, i.e., where there is no need to license a silent subject. Also, in contrast to the negative affective demonstrative construction, the affective construction in den Dikken (2006) is not limited in terms negativity/positivity: *hülye egy orvos* 'a stupid one of a doctor', *csodálatos egy tanár* 'a wonderful teacher', *átlagos egy nap* 'an average day' are all fine: one would expect no such difference if these constructions were underlyingly the same. Furthermore, *hülye egy orvos* 'a stupid one of a doctor' is an indefinite which can be freely used in predicative statement such as (i), the NAD construction, as we have seen in (12), is strictly a definite and cannot be used in a sentence like (i) above:

(ii)   *János a hülyéje   volt.
          John   a stupid-POSS.3SG was
          'John was that total idiot.'

Furthermore, the meaning is also different: *hülye egy orvos* simply means a doctor who is stupid (or someone who is stupid *qua* doctor), but not necessarily saliently so, the NAD construction refers to someone who is salient in terms of stupidity. Finally, as we will see in Sect. 5.5, the NAD suffix is not identical to the POSS.3SG suffix, which can be easily accounted for in a grammaticalization framework, but would be difficult to explain under the assumption that what we see here is the possessive suffix functioning as a copula.

[34](68ab) are grammatical on an identifying reading, in a situation where it is known that the village (the world) has only a single firefighter, and what the sentence expresses is that this unique position is filled by none other than John.

[35]In Hungarian, there are many noun-adjective pairs which sound identical. E.g. *marha* (noun, 'literally: cow, figuratively: stupid person') and *marha* (adjective, 'stupid'). This means that *a világ marhája* may be analyzed in two ways: either as having a noun possessum or having and adjective possessum. Based on (68), however, it seems that only the adjective possessum analysis is appropriate.

In terms of animacy, as we have seen in Sect. 2.1, the negative affective demonstrative suffix is limited to [+animate] possessums: this can be thought of as a relic inherited from the 'world possessor' construction, which was also limited to [+animate] possessor-possessum pairs.

5.4 Semantic bleaching and the semanticization of originally pragmatically inferred information

The gradual semantic bleaching of the suffix can be represented as below:

(69) a. 'community possessor—maximal individual' construction: [possessedness, maximality]
      b. 'world possessor—salient individual' construction: [possessedness, salience]
      c. negative affective demonstrative construction: [salience]

The meaning component of [possessedness] is lost from b) to c). The change from [maximality] to [salience] can also be interpreted as semantic bleaching: the meaning component of uniqueness is lost (there is by definition only one maximal element but there are several salient elements) and also as semantic weakening: 'very beautiful' is weaker than 'the most beautiful'.

It has been influentially proposed by Eckardt (2006) (cf. also Hopper and Traugott 1993; Levinson 2000) that grammaticalization often involves the semanticization of originally pragmatically inferred information. Note that this is the case here as well:

(70) a. *a* (*világ*) *hülyé-je*: 'the maximally stupid person', inferred to
                                        mean 'a saliently stupid person'
      b. *a*   *hülyé-je*: 'a saliently stupid person'

In the original construction (70a), the fact the a salient (not literally maximal) person is being referred to has to be pragmatically inferred. In the grammaticalized construction (70b), salience is hard-wired into the semantics.

5.5 Morphological reduction

Another parameter of grammaticalization is the reduction of morphology, including the loss of irregular morphology. Below, I will review two such phenomena.

5.5.1 Loss of stem reduction and loss of the yod-less form of the suffix

The 3rd person possessive suffix has two variants in Hungarian: the yod-less (*-e/-a* depending on vowel harmony) and the yod version (*-je/-ja*). Their distribution is governed by a complex set of phonological and morphological rules.[36] With most words, the suffix is simply attached to the basic version of the stem (such as in 71a,b), however, there is a limited number of words where the stem is affected by suffixation (e.g. 71c):

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[36]For more details on the morphophonology of POSS.3SG in Hungarian, see Farkas and Alberti (2016) and Rebrus et al. (2017). For the role of alienable vs. inalienable possession in yod-less/yod variation, see Kiefer (1985), Elekfi (2000), Ortmann and Gerland (2014) and Den Dikken (2015), among others.

(71)   a. *ház*   'house' → *ház-a*   'house-POSS.3SG'
        b. *kar*   'arm'   → *kar-ja*   'arm-POSS.3SG'
        c. *ökör*   'ox'   → *ökr-e* (*ököre/*ökörje) 'ox-POSS.3SG'

If the suffix in the negative affective demonstrative construction is the result of grammaticalization, we would expect this irregular morphology to be lost, meaning that suffixation by the NAD suffix should not affect the stem. In fact, this is exactly what we see in electronic corpora (including internet discussion forums): the irregular forms are almost completely unattested[37] with the NAD construction; only the regularized forms work. Consider (see also database for other examples such as *barom* 'beast, fool', *bátor* 'brave', *lator* 'evildoer'):

(72)   a. Alapfogalmakkal   nincs   tisztában   az   ökör-je.
        b. *Alapfogalmakkal   nincs   tisztában   az   ökr-e.
            basic.notion:PL:INS   NEG   clean:INE   the   ox-NAD
            'That total fool has no idea of even the most basic notions.'

This loss of irregular morphology is clear evidence of grammaticalization.

With the 'world possessor—salient individual' construction, the irregular morphology is consistently retained and the regularized morphology is unavailable (see also database):

(73) a. A   világ   ökr-e   lenne,   ha   vissza   fogadná   őt.[38]
      b. *A   világ   ökör-je   lenne,   ha   vissza   fogadná   őt.
          the   world   ox-POSS.3SG   would:be if   back   would:let him
          'She would be a total fool to get together with him again.'

This should come as no surprise: in the 'world possessor—maximal individual' construction, we still have a possessive structure and a true possessive suffix.

5.5.2 Reduction of plural morphology is under way

In this section, we will review a second case of the reduction of morphology: the gradual loss of a special allomorph of the plural suffix. Note that the morphology of Hungarian is fairly consistent in that the plurals of nouns are built with the suffix *-k*:

(74)   *kocsi*   >   *kocsi-k*
        car   >   car-PL
        'car'   >   'cars'

(75)   *váza*   >   *vázá-k*
        vase   >   vase-PL
        'vase'   >   'vases'

However, when a possessed noun is pluralized, things get more complicated. Consider:

---

[37]Instances with the irregular morphology are sporadically attested, but are vastly outnumbered by instances with the regularized morphology.

[38]Source: http://www.delmagyar.hu/szorakozas/angelina_kidobta_ferjet_brad_pitt-et/2068245/.

(76)   János kocsi-ja   >   János kocsi-ja-i   *János kocsi-já-k

John car-POSS.3SG   >   John car-POSS.3SG-PL   John car-POSS.3SG-PL

'John's car'   >   'John's cars'   'John's cars'

(77)   János vázá-ja   > János vázá-i   *János vázá-já-k

John vase-POSS.3SG > John vase-POSS.3SG:PL John vase-POSS.3SG-PL

'John's vase'   > 'John's vases'   'John's vases'

To simplify somewhat, after the POSS.3SG, instead of the regular *-k*, the allomorph *-i* emerges. The case of noun stems ending in certain vowels such as *-a* is even more complicated: here, the possessive suffix is suppressed in the case of pluralization: instead of the expected *vázá-ja-i*, we have *vázá-i* (77): both the 3SG possessor and the plurality are expressed by the suffix *-i*.

Since this allomorph is limited to possessed nouns, if the negative affective demonstrative suffix is the result of a grammaticalization process from the possessive POSS.3SG, we would expect this allomorph to be gradually lost over time and replaced with the regular form in the NAD construction.

For most native speakers of Hungarian, as of today, the allomorph *-i* is retained and the NAD suffix is suppressed:

(78)   Budapesten a marhá-i   összevissza váltogatják a   sávokat![39]

Budapest-in the cow-NAD:PL haphazardly change   the lanes

'In Budapest, those total fools keep changing the lanes all the time while driving!'

However, there are a couple of attestations in informal registers (such as in blogposts) where the regular plural allomorph *-k* is used (see also database for other examples):

(79)   Erre a marhá-já-k   hoznak nekem egy Kőbányait?[40]

then the cow-NAD-PL bring   me   a   Kőbányai:ACC

'And then those damn idiots bring me a Kőbányai

(=a mediocre type of beer)?'

Naturally, the regular plural *-k* is not attested with the overt world possessor:

(80)   *a világ marhá-já-k

the world cow-POSS.3SG-PL

'the total fools'

This is as expected: (80) represents the pre-grammaticalization phase where we have a fully functioning possessive construction (albeit with a semantically rather vacuous possessor), so no loss of the special morphology is to be expected. The conclusion here is that as part of the gradual grammaticalization process, the loss of the plural allomorph *-i* has already started, but it is in its earliest stages.

[39]Source: http://webcache.googleusercontent.com/search?q=cache:nJfVO-uoSzgJ:www.vezess.hu/magazin/2016/01/12/tevuton-jar-a-rendorseg/+&cd=1&hl=en&ct=clnk&gl=hu.

[40]Source: http://webcache.googleusercontent.com/search?q=cache:Vv1EJoXL_4wJ:gerikalandjai.blog.hu/2016/12/28/sorkor_egy_mero_hulyeseg_ne_olvasd_el+&cd=1&hl=en&ct=clnk&gl=hu.

In this paper, I argued for the existence of a separate negative affective demonstrative morpheme (NAD), diachronically related to but synchronically distinct from the possessedness suffix (POSS). A reviewer wonders whether this analysis is on the right track and whether we have sufficient evidence to exclude the obvious alternative analysis, i.e., that what we see is different functions of a single suffix.

I believe that the clearest indication that we have two different suffixes is that their morphological behaviour is different, as shown by the stem reduction and plural allomorphy phenomena discussed in Sect. 5.5. In addition to this, we have seen in Sect. 5.2 that the syntactic distribution of the phrases carrying the suffixes in question is also different (NAD-suffixed phrases cannot be preceded by a prenominal demonstrative whereas POSS-suffixed phrases can). Finally, NAD-suffixed phrases lack any possessor, which clearly suggests a deep functional difference between NAD and POSS.

6 Conclusion

In this paper, I analyzed a peculiar construction in Hungarian where the POSS.3SG possessive suffix is used in a non-possessive function. We have seen that in these constructions, the suffix is properly analyzed as an affective demonstrative suffix that is limited to negative evaluations. In terms of diachrony, I have shown that this suffix has been grammaticalized from the POSS.3SG suffix: this process can be fairly accurately mapped with the help of data from electronic and written corpora, and it displays the characteristics typically associated with grammaticalization such as structural simplification, semantic bleaching and morphological reduction. The crucial step has been the drop of a semantically somewhat vacuous possessor (*világ* 'world') and the gradual reinterpretation of the POSS.3SG suffix as a negative affective demonstrative suffix. This is a clear case of a demonstrative having been grammaticalized from a different functional element, something which has been argued by many authors to be cross-linguistically unattested.

These results are also significant contribution to the general debate on the non-possessive uses of possessive suffixes in various Uralic languages, showing a clear and detailed grammaticalization pathway from POSS.3SG possessive suffix to demonstrative suffix. It is well-known that possessedness morphology (and most prominently, the POSS.3SG suffix) has the function of expressing definiteness (or identifiability, contrast, emphasis etc.) in many Uralic languages (cf. Collinder 1957; Schlachter 1960; Hajdú 1966; Sinor 1978; Rédei 1988; Leinonen 1998; Winkler 2001, 2011; Fraurud 2001; Nikolaeva 2003; Gerland 2014; Janda 2015; É. Kiss 2018; É. Kiss and Tánczos to appear). Most authors assume that this is an inherent feature and not the result of grammaticalization. The discussion of this vast topic is clearly beyond the scope of this paper, nevertheless, I would like to briefly point out how my results might contribute to this debate.

We have seen that in Hungarian, there is a well-documented *possessive > demonstrative* grammaticalization pathway, the starting point of which was a possessive construction which denoted a set—salient element relation. Such constructions are cross-linguistically widely attested. É. Kiss and Tánczos (to appear) analyze a *possessive > partitive > specific* pathway in Udmurt, and discuss the further possibility

of the specifity suffix being reanalyzed as a definiteness suffix (a stage not yet covered in Udmurt). The starting point of this is a possessive construction expressing a set—subset relation.

Since the grammaticalization of demonstrative elements into definiteness markers is cross-linguistically well attested, and since we have seen that there is a natural grammaticalization pathway from possessive to demonstrative, a *possessive suffix > demonstrative suffix > definiteness suffix* pathway seems plausible, especially in languages which share the facilitating factors of extensive pro-drop and lack of grammatical gender, such as Uralic languages.[41] Whether such a grammaticalization process can be detected in other Uralic languages remains a topic for further research.

Note that the existence of two parallel possessive-to-definite grammaticalization pathways can be thought of as an instantiation of the basins of attraction principle to grammaticalization (Roberts and Roussou 2003): there is a natural tendency for possessive suffixes being reinterpreted as definiteness suffixes (due in essence to the fact that possessives often denote set-subset and set-element relations), and the grammaticalization is especially likely to happen in languages where possessors are often silent due to pro-drop and where there is no gender agreement in possessives (such as Hungarian in particular and Uralic languages in general). Even though there are more pathways than one, they may all converge to the same end result: the grammaticalization of the possessive suffix into a definiteness suffix.

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[41]Note that in Hungarian, the last step (*demonstrative suffix > definitess suffix*) is blocked due to the fact that Hungarian (almost uniquely among Uralic languages) has definite articles (developed in the Old Hungarian period from a prenominal demonstrative modifier, cf. Egedi 2013, 2014).

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