Ordinals, reflexives and unaccusatives

Unification by predication

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This paper presents a unified outlook on the syntax of constructions featuring the reflexive clitic SE, with particular emphasis on the uniform morphosyntax of the Hungarian element *-ik*, treated as an exponent of SE both in the verbal domain and in the nominal domain (in ordinal numeral constructions). The analysis is couched in the syntax of predication proposed in Den Dikken (2006), with SE represented as the subject of a reverse predication.

Keywords: ordinals, reflexives, unaccusatives, predication, reflexive clitic SE, *-ik*

1. Introduction

When the Hungarian suffix *-ik* attaches to verbs, the result is very often an output which in many of the Indo-European languages would be rendered as a reflexive-marked unaccusative construction. Thus, compare the Hungarian examples in (1)–(3) with the French sentences on the right-hand side.

(1)	Hungarian	French
a.	*János darabokra tör egy ablakot.*	*Jean casse une fenêtre.*
	János into.pieces breaks a window.ACC	Jean breaks a window
	'János is breaking a window into pieces.'	'Jean is breaking a window.'

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	b.	*Egy ablak darabokra tör-ik.*	*Une fenêtre se casse.*
		a window into.pieces break-IK	a window SE breaks
		'A window is breaking/getting broken into pieces.'	'A window is breaking.'
(2)	a.	*János be-csuk egy ablakot.*	*Jean ferme une fenêtre.*
		János VM-close a window.ACC	Jean closes a window
		'János is closing a window.'	'Jean is closing a window.'
	b.	Egy ablak be-csuk-ód-*ik*.	Une fenêtre *se* ferme.
		a window VM-close-ÓD-IK	a window SE closes
		'A window is closing/getting closed.'	'A window is closing.'
(3)	a.	*János messziről lát egy tornyot.*	*Jean voit une tour de loin.*
		János from.afar sees a tower.ACC	Jean sees a tower from afar
		'János sees a tower from afar.'	'Jean sees a tower from afar.'
	b.	*Egy torony messziről lát-sz-ik*	*Une tour se voit de loin.*
		a tower from.afar see-SZ-IK	a tower SE sees from afar
		'A tower can be seen from afar.'	'A tower can be seen from afar.'

The focus in this paper is on *-ik*, which I will assimilate directly to the French reflexive clitic *se* seen in the right-hand examples.

Hungarian *-ik* leads what appears to be a double life. In the nominal domain, *-ik* attaches to cardinal numerals in combination with *-Od* (whose vowel has its quality determined by vowel harmony) to form ordinals (see (4)), and to certain quantifiers to form other quantifiers (as in (5)).

(4) a. *negy-ed-ik*
four-OD-IK
'fourth'

b. *öt-öd-ik*
five-OD-IK
'fifth'

c. *hat-od-ik*
six-OD-IK
'sixth'

(5) a. *(mind)egy-ik*
every.one-IK
'(each) one'

b. *mely-ik*
which-IK
'which'

c. *{vala/né}mely-ik*
Q-which-IK
'some'

A central claim in this paper is that the *-ik* seen in (4) and (5) is not a homophone morphosyntactically unrelated to the *-ik* seen in the b-examples in (1)–(3) but in fact the very same morpheme. Drawing upon hitherto unidentified connections between Hungarian *-ik* forms and the morphosyntax of ordinals and reflexivisation in Indo-European, this paper presents a unified approach arguing that *-ik* is systematically a reflexive clitic (SE) serving as a subject of predication – more particularly, a reverse predication in the sense of Den Dikken (2006).[1] A unified analysis of Hungarian *-ik* has never been explicitly attempted, as far as I am aware.

Before I embark on this exercise, it will be good to dismiss a few distractors and non-starters. First, let me make it clear that my unified analysis of Hungarian *-ik* is meant to cover only those occur-rences of the suffixal string /ik/ for which it is plausible to treat it as a single morpheme. The /ik/ found in *szeret-ik* 'they love it' (the marker of third person plural definite/objective agreement for verbs with front-vowel stems) is a combination of two separate morphemes: *-i* for definiteness (reduced to *-j* in the suffix *-ják* occurring on back-vowel stems such as *lát-ják* 'they see it'; see Den Dikken 2018) plus *-k* for plural. The orthodox perspective in Hungarian historical grammars since at least Mészöly (1941) (see also Abaffy 1991; 1992; Balázs 2001; Sárosi 2003) has been to treat verbal *-ik* as deriving from the $\text{-}i_{\text{DEF}}\text{+-}k_{\text{PL}}$ combination of the definite/objective conjugation, with transitive *az ágat tör-i-k* 'the branch.ACC break-DEF-PL, i.e., they are breaking the (tree) branch' hypothesised to give rise to anticausative *az ág tör-ik* 'the branch(NOM) break-IK, i.e., the branch is breaking'. Havas (2004) roundly rejects this derivation. I agree with Havas that deriving *-ik* from $\text{-}i_{\text{DEF}}\text{+-}k_{\text{PL}}$ is a mistake – not just from a diachronic perspective, but also in light of the fact that such an approach sheds no light on the nature and synchronic distribution of *-ik*.

1. In reverse predication structures, the predicate underlyingly asymmetrically c-commands its subject (rather than the other way around, as in canonical predications; see (8)–(9) below). A reviewer asks how we decide whether we face canonical or reverse predication. There exists as yet no clear picture of the semantic regularities differentiating between the two: attributive or specificational semantics sometimes characterises reverse predication, but it does not appear to be a definitional property of it. Pending a better understanding of the interpretive correlates of reverse predication, the syntax/PF interface is usually our best guide. Important in this connection are the following considerations: c-command; linear order (incl. affix order); left-branch effects; and exponence of the RELATOR as a functional element immediately preceding but not forming a constituent with the lower of the two terms of the predication structure (see Den Dikken 2006 with reference to DP-internal predication, and Den Dikken 2020 on the reverse-predication syntax of the passive).

Havas' (2004) own treatment of *-ik*, as a medialising suffix, while semantically sensible for at least a subset of *-ik* verbs, is morphosyntactically unhelpful in light of the fact that there is arguably no primitive category of 'middle marker': the marker that occurs in middles is an instantiation of the multi-purpose morpheme SE, often called a reflexive morpheme. I take SE to be the source of *-ik*. In doing so, I also gain access to the use of *-ik* in the nominal domain, in ordinals, for which a reflexive analysis can be motivated (see Section 2) but a 'medialisation' approach is not sensible.

Although he does not pursue this himself, Havas (2004:126, fn. 47) comes remarkably close to embracing a unified analysis of verbal and nominal *-ik* as SE, mentioning in passing that 'an original suffix *-ik*, functioning as a "self-identifying" derivational suffix on nouns as well as verbs is not out of question'. Indeed, the point of the present paper is precisely to argue that this is correct.

2. SE in the nominal domain: Ordinals

Apart from getting a passing nod in Havas (2004:126, fn. 47), the idea that Hungarian *-ik* is a reflexive (SE) morpheme not just in its verbal guise but in the morphosyntax of ordinal numerals and certain quantifiers as well finds no endorsement in the literature on Hungarian or Uralic. For Indo-European, what I am about to discuss is also by no means part of the standard canon of morphological analysis. Readers are invited to put their initial skepticism on hold, and to judge the conclusions reached at the end of this section after taking in the entire spectrum of facts, which, taken together (though probably not on an individual basis) make what I think is a solid plausibility argument for the idea that ordinal numerals in the languages reviewed in this section involve reflexive morphology, and that the presence of reflexive morphology in ordinals gives rise to a morphosyntax that delivers a sensible perspective on the semantics of ordinal numerals.

2.1 Dutch

Before analysing the morphosyntax of Dutch ordinals, it will be very helpful to set the stage by investigating the Dutch semantic equivalent of English *same*, which has a constitution that is both very similar to and exemplary for the structure of ordinals in the language.

In standard Dutch, English *same* is rendered by *zelf* 'self' plus the invariant suffix *-de*, this combination being preceded in turn by an overt article: (6). In historical and regional varieties of the language the expression corresponding to

same can be quite a bit more complex. (7) presents the richest forms attested: here, *zelf* is followed by three elements for which it is plausible to treat them as spell-outs of heads of syntactic phrase-markers – *-d*, *-s* and *-te*.

(6) a. *de/een zelf-de man*
the$_{CG}$/a self-SFX man$_{CG}$
'the same/a similar man'
b. *het/een zelf-de kind*
the$_{NT}$/a self-SFX child$_{NT}$
'the same/a similar child'

(7) a. *de/een zelf -d -s -te man*
the$_{CG}$/a SELF man
'the same/a similar man'
b. *het/een zelf -d -s -te kind*
the$_{NT}$/a SELF child
'the same/a similar child'

I advocate an analysis of the *s* of (7) as a reflexive clitic (SE) serving as the subject of predication for *zelf*. An attributive relation is established between SELF and SE, comparable to English *self-same*. This attributive relation is a case of reverse predication (Den Dikken 2006), in which the subject of predication appears in the complement position of the RELATOR of the predication relationship, and the predicate is in the specifier position of the RELATOR phrase: see (9), the reverse counterpart to canonical (8).

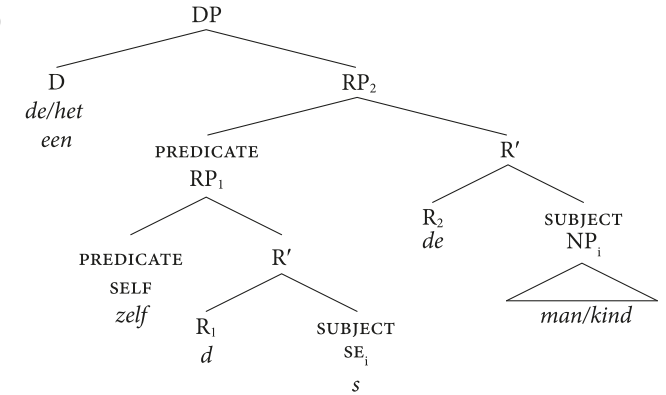
(8) [$_{RP}$ SUBJECT [$_{R'}$ RELATOR [PREDICATE]]]

(9) [$_{RP}$ PREDICATE [$_{R'}$ RELATOR [SUBJECT]]]

The RELATOR of the attributive/reverse predication relationship between SELF and SE has an overt exponent in the Dutch examples in (7): *d*, the onset of the Dutch definite article (see Den Dikken 2006: Chapter 5 on articles as spell-outs of RELATORS). The reverse predication structure [$_{RP}$ *zelf-d-s*] is in turn construed as an attribute to the projection of the head noun (*man*/*kind* 'man/child'), in a second reverse predication structure whose subject is the projection of the head noun, with the predication relation once again mediated by a token of the definite article spelling out the RELATOR: *te=de* (the voicelessness of the alveolar stop is phonologically conditioned by the preceding clitic *s*). The structure in (10) sums this up.[2]

2. In the structure in (10), SE is coindexed with the noun phrase in the complement of R_2, involving a standard case of binding of a subpart of the predicate (RP_1) by its subject, modelled in terms of reverse predication. In Den Dikken (2020), I follow Reinhart & Reuland's (1993)

(10)



Just as in the familiar alternation between the simple reflexive *zich* and the complex reflexive *zichzelf*, seen in pairs such as *Jan bezeerde zich* 'Jan hurt himself (accidentally)' and *Jan bezeerde zichzelf* 'Jan hurt himself (not someone else)', attributive *zelf* in (10) strengthens the reflexive clitic that it modifies, focusing on the reflexivity. In (10) this yields an interpretation equivalent to that of English *self-same*. Because of the fact that the predication relation between SELF and SE is unsaturated within RP_1 (due to the fact that SE does not get its reference determined inside RP_1), this predication structure subsequently serves as the predicate of a projection of the head noun, *man/kind* 'man/child', yielding an interpretation which can be paraphrased clumsily as 'man/child$_i$ who is the self-same one$_i$'.

The morphological patterns found for Dutch ordinals (see Sleeman 2017) very closely resemble the ones attested for the equivalent of English *same*. In the standard language, ordinals are generally derived from the corresponding cardinals via the suffixation of invariant *-de* (see (11)), the same suffix we found in (6). And as in the case of the rendition of English *same*, Dutch ordinals can be extraordinarily complex in historical and regional varieties, as seen in (12).

(11) a. *de/een vier-de man*
the$_{CG}$/a four-SFX man$_{CG}$
'the/a fourth man'

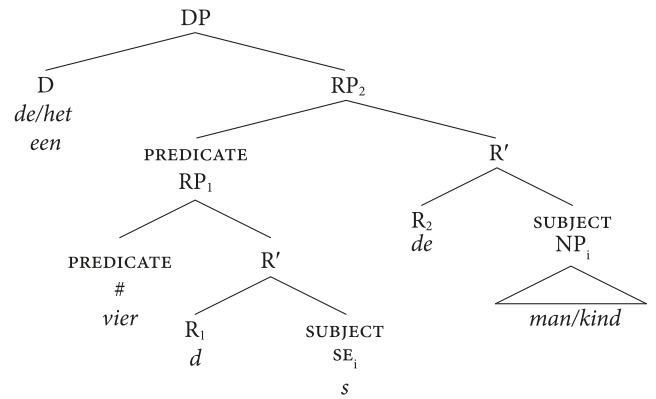
b. *het/een vier-de kind*
the$_{NT}$/a four-SFX child$_{NT}$
'the/a fourth child'

theory of reflexivity but do not adopt their chain condition, arguing explicitly that c-command is not a requirement for binding: binding can converge without c-command; whenever there *is* c-command in a configuration of binding, it is epiphenomenal.

(12) a. *de/een vier -d -s -te man*
the$_{CG}$/a four man
'the/a fourth man'
b. *het/een vier -d -s -te kind*
the$_{NT}$/a four child
'the/a fourth child'

The ordinal *vierdste* combines all three elements for which I argued for *zelfdste* 'same' that they are exponents of heads of syntactic phrase markers: *-d*, *-s* and *-te*. A morphosyntax for the ordinals in (12) now suggests itself, running entirely parallel to the analysis in (10): *vier* 'four' substitutes for *zelf* 'SELF' and likewise serves as the predicate of the reflexive clitic *s* coindexed with the head noun. The cardinal numeral in the structure in (13) is predicated of a reflexive pronoun coreferent with the head noun, delivering as the interpretation of RP_1 something that is paraphrasable as 'the one that is #4'. Because this predication relation is not fully saturated, RP_1 is in turn construed as the predicate of another predication structure, for which the projection of the head noun serves as the subject. For standard Dutch (11), I postulate the same syntactic structure, with R_1 and SE unpronounced.

(13)



2.2 Hungarian

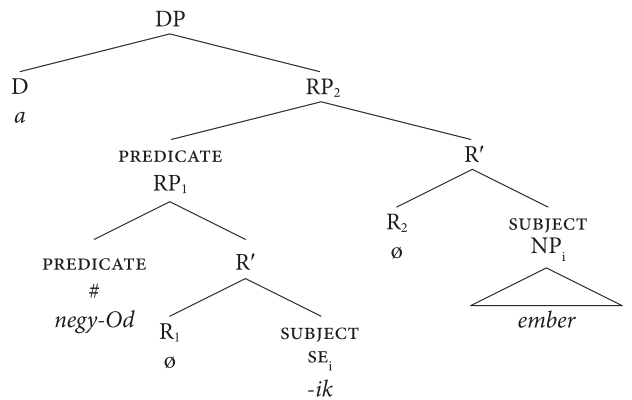
According to É. Kiss (2018: 97), the first occurrences of ordinals marked with *-ik* in the historical record date back to around 1500. I would like to argue that this *-ik* is the exponent of the reflexive clitic SE in the structure of ordinal numerals presented in the foregoing.

(14) a. *harm-ad-yk psalmus* (Festetics Codex, 1494)
three-OD-IK psalm
'the third psalm'

b. *a negy-ed-ik ember* (present-day Hungarian)
the four-OD-IK person
'the fourth person'

This *-ik* is enclitic on the fraction-forming suffix *-Od* (whose vowel has its quality conditioned by vowel harmony), which immediately follows the cardinal numeral. For reasons of simplicity, here I will treat this *-Od* as an integral part of the numeral occupying the specifier position of RP_1.

(15)



Though the precise status of *-Od* remains to be investigated further, the most important thing to take away from the discussion in this section so far is that the exponent of the reflexive clitic in the syntax of ordinals in Hungarian is *-ik*. É. Kiss (2018) argues that the *-ik* of ordinals and attributive comparatives is the product of a historical reanalysis of an allomorph of third person plural possessive marking into a partitive suffix.[3] In the syntax in (15), the relationship within RP_2 between the predicate (RP_1) and the subject (NP) can readily be understood partitively: not only is partitivity a natural interpretation for the set-intersection relationship that is predication, but the meanings of 'the person who is the #4' (a paraphrase of the syntax of ordinal numeral constructions) and 'the #4 of/among the people' are equivalent as well.

From the 17th century, *-ik* is also found on certain quantifiers (incl. *(mind)egy-ik* '(each) one', *mely-ik* 'which', *valamely-ik* 'some', *minden-ik* 'each'). For the quantifiers on which *-ik* occurs, it seems to me that a syntax entirely par-

3. É. Kiss (2018) also observes that around the same time at which this *-ik* emerges in ordinals (c. 1500), *-ik* also starts showing up on attributive comparatives (*az kisseb-ic fia* 'the smaller-IK son' [Guary Codex, 1495]; *a szebb-ik-et megtartom* 'the nicer-IK-ACC I keep'). A partitive interpretation for this use of *-ik* is again plausible: 'the son who is the smaller one' = 'the smaller one of the sons'.

allel to (15) can be upheld, with *-ik* once again as a reflexive subject of reverse predication. The semantics emerging from the structure in (15) with *minden* 'every' in the position of *negy-Od* is paraphrasable as 'every one$_i$ (= SE$_i$) of the people$_i$' (with the relationship between RP$_1$ and NP understood partitively). É. Kiss's (2018: 92–93) observation that *a tanszékünkön minden-ik férfi szakállas* 'in our department every-IK man (is) bearded' is fine while in generic statements such as *minden*(??*-ik*) *ember halandó* 'every-IK person (is) mortal' the use of *-ik* is very awkward fits in with this: 'every one$_i$ (= SE$_i$) of the men$_i$' makes sense in the former, not in the latter.

3. SE in the verbal domain (I): Reflexive and unaccusative verbs

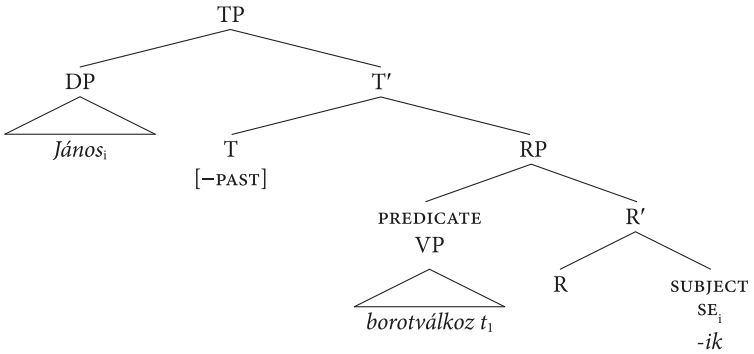
This section and the next assimilate the *-ik* found on *-ik* verbs to the *-ik* found in the morphology of Hungarian ordinals and quantifiers. Both spell out SE and serve as subjects of a reverse predication.

In present-day Hungarian, *-ik* can still serve a reflexive function, as in (16a), analysed as in (16b),[4] with SE as the agent (hence the subject of predication) coindexed with the raised internal argument, delivering a reflexive predication structure.

(16) a. *János borotválkoz-ik.*
János shave-IK
'János is shaving himself.'

4. The suffix *-koz/kez/köz* seen in *borotvál-koz-ik* is customarily glossed as a reflexivising morpheme. I treat it as an integral part of the VP predicate, marking it as reflexive, in the sense of Reinhart & Reuland's (1993) work (see Den Dikken 2020 for my reasons for endorsing a predicate-based theory of reflexivity). Because *-koz/kez/köz* reflexive-marks the predicate, two coindexed co-arguments are called for – SE is one of these; the other is the internal argument of the verb marked with *-koz/kez/köz*. This requires a raising analysis of reflexive *borotválkoz-ik* (in line with *i.a.* Kayne 1975; Bouchard 1984, for Romance, but *contra* Reinhart & Siloni 2005; Doron & Rappaport Hovav 2007; Sportiche 2014).

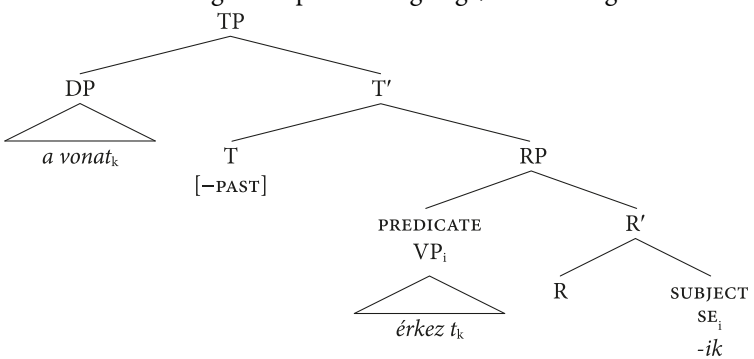
b.



In the syntax of unaccusatives, SE is the cause, semantically coindexed with the event denoted by the VP, which is thus said to come about all *by itself* (cf. Dutch *ouder worden gaat vanzelf* 'getting older goes by itself', involving a predication relation between [*ouder worden*] and SE=*zelf*, mediated by *van* 'of' as the RELATOR, in the complement of aspectual *gaan* 'go'). The tree in (17b) illustrates.

(17) a. *A vonat érkez-ik. Az ember öregsz-ik.*
the train arrive-IK the person age-IK
'The train is arriving.' 'The person is ageing. / Humans age.'

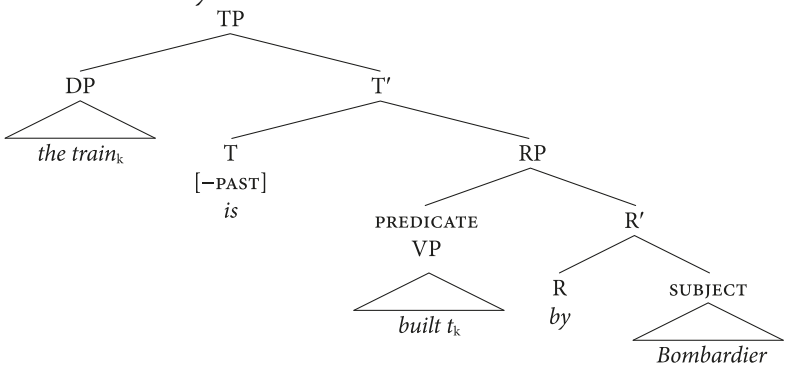
b.



The structures in (16b) and (17b) globally match the syntax of periphrastic passives as proposed in Den Dikken (2006, 2020) – see (18b), for the English passive in (18a).

(18) a. *The train is built by Bombardier.*

b.



In all these structures, the main verb's VP is engaged in a reverse predication relationship, and its internal argument is promoted to structural subject. There is an important difference, however, between the derivations based on (16b) and (17b), on the one hand, and (18b), on the other: while the passive in (18) calls for auxiliation, the main verb in (16) and (17) amalgamates with finite verbal morphology itself. What is the root of this difference between (16)/(17) and (18)?

In Den Dikken (2020), the fact that the verb in the reverse predication structure in (18b) is a participial form and cannot be tense/φ-inflected is related to the fact that its projection occupies a specifier position: head movement out of specifier positions is generally very difficult (see, e.g., Baker 1988; Hale & Keyser 1993). In (16b) and (17b), too, the VP originates on a left branch. Yet here, amalgamation of the verb with finite inflection is successful. This is because in (16b) and (17b) the right branch of the RP substructure, the clitic *-ik*, moves, via R, into the inflectional domain of the clause. Movement of the right branch of a small clause (RP) via its head (R) lifts the islandhood of its left branch. 'Left branch-hood' is a configurational property: a left branch is only a left branch in the presence of material to its right; removal of all of this material under movement robs the specifier of RP of its 'left branch-hood', and renders its head eligible for an Agree relationship with a head outside RP.

3.1 *-ik* and person

The reflexive clitic SE in the structures in (16b) and (17b) φ-agrees with the surface subject, the closest c-commanding element bearing φ-features. The Hungarian reflexive clitic *-ik* is restricted to third person, like Indo-European SE. In conservative and prescriptive Hungarian, *-ik* verbs also trigger an unusual form for 1SG [−PAST]: though in [−PAST] *-m* is otherwise restricted to the objective (aka defi-

nite) conjugation, *-m* shows up on 1SG [–PAST] *-ik* verbs instead of the *-k* suffix from the subjective (aka indefinite) conjugation:

(19) a. †*érkez-em* ['†' = conservative/prescriptive]
arrive-1SG.OBJ/DEF
b. !*érkez-ek* ['!' = prescriptively incorrect but widespread]
arrive-1SG.SUBJ/INDEF

This is perhaps particularly striking in the case of the (few) *-ik* verbs that are surface transitive: in conservative and prescriptive Hungarian, the verbs of ingestion *esz-ik* 'eat' and *isz-ik* 'drink' take the *-m* ('DEF') suffix for first person singular even in the presence of an INdefinite accusative object:

(20) a. †*esz-em egy sütit*
eat-1SG.OBJ/DEF a pastry.ACC
b. !*esz-ek egy sütit*
eat-1SG.SUBJ/INDEF a pastry.ACC
'I am eating a pastry'

(21) a. †*isz-om egy sört*
drink-1SG.OBJ/DEF a beer.ACC
b. !*isz-ok egy sört*
drink-1SG.SUBJ/INDEF a beer.ACC
'I am drinking a beer'

The distribution of *-m* with *-ik* verbs is expected if (as argued above) *-ik* is a clitic and (as argued in Den Dikken 2018) *-m* is likewise a clitic (while *-k* '1SG.INDEF' is an inflection): the *-m* form found on *-ik* verbs with 1SG subjects is the first-person singular form of the reflexive clitic, which is realised as *-ik* only in the third person singular.[5] The clitichood of *-m* facilitates its participation in the *-ik* paradigm. More recently, Hungarian language learners have assimilated the *-ik* verbs to 'ordinary', non-*ik* verbs in the first person, giving them the regular subject-agreement forms and no longer postulating an overt φ-agreeing clitic in their syntax. The overt clitic is currently confined entirely to the third person singular (i.e., to *-ik*).

5. In the presence of a PLURAL surface subject, the reflexive clitic is systematically silent in present-day Hungarian – that is, the form of the verb in such cases is no different from the one found in non-reflexive constructions. See also the main text discussion in the closing paragraph of Section 3.2 below.

3.2 *-ik* and tense, mood

A long-standing question about the distribution of *-ik* with verbs is why it is not combinable with tense morphology, whether to its left or to its right (22a), whereas (at least in archaic/conservative varieties) it does combine with subjunctive and conditional mood morphology (see (22b,c)). What makes *-ik* allergic to tense?

(22) a. *egy vonat érkez(*-ik)-ett(*-ik)*
a train arrive-IK-PAST-IK
'a train arrived'
b. *egy vonat érkez-zé-k*
a train arrive-SUBJUNCT-IK
'may a train arrive'
c. *ha egy vonat érkez-né-k*
if a train arrive-COND-IK
'if a train should arrive'

To answer this question, I resort to three independently plausible hypotheses: (a) *-ik* must encliticise to an F-head that locally c-commands it and can host it; (b) the Linear Correspondence Axiom (Kayne 1994) prohibits right-adjunction of overt material to overt material, but is silent on cases of right-adjunction in which one of the terms is non-overt; and (c) mood (MoodP) is introduced outside TP (see É. Kiss 1998), as depicted in (23).

(23) $[_{CP}$ C $[_{MoodP}$ Mood $[_{TP}$ T $[_{RP}$ $[_{VP}$ ... V ...] $[_{R'}$ RELATOR [SE=*-ik*]]]]]]

Encliticisation of *-ik* to T is illegal when there is overt morphology in T (*-t(t)*), by the LCA. But [−PAST] T is silent, and no linear ordering problem can arise when *-ik* encliticises onto a silent head. Hence *-ik* legally encliticises onto [−PAST] T. In the subjunctive and the conditional, which are both located above TP in the tree, there is likewise no interference with encliticisation of *-ik* to T, which is once again silent in (22b,c).

Since encliticisation of overt *-ik* to overt T gives rise to a violation of the LCA, and since suppressing overt tense morphology would make [+PAST] irrecoverable from the signal, the last resort solution to the problem posed by (23) in the presence of overt material in T is to use the silent allomorph of the clitic *-ik*. This silent allomorph occurs elsewhere in the paradigm of *-ik* verbs as well: the plural paradigm of these verbs (for the particular verb used in (22): *érkez-ünk* '1PL', *érkez-tek* '2PL', *érkez-nek* '3PL') is entirely devoid of any overt material in the morphophonological string that corresponds to the clitic SE in the structure in (17). Though the third person singular gives rise to overt *-ik* whenever *-ik* is licensed to surface, it

reverts to a silent SE in the presence of overt tense morphology in T, which by the LCA cannot serve as a host to the enclitic *-ik*.

3.3 *-ik* and *-gAt*, *-hAt*

We see this silencing of the clitic elsewhere in the grammar of Hungarian *-ik* verbs as well. Whereas *-ik* is otherwise obligatory wherever it is licensed to occur, the frequentative aspectual marker *-gat/get* and the modal *-hat/het* 'can$_{POT}$' make it legitimate for *-ik* not to be used. For frequentative *-gAt*, absence of *-ik* is essentially obligatory; for potential *-hAt*, combinations with *-ik* are attested in the historical record and, for some speakers, synchronically as well.

(24) a. *egy vonat érkez-get(*-ik)*
a train arrive-FREQ-IK
'a train keeps arriving'
b. *egy vonat érkez-het(%-ik)*
a train arrive-POT-IK
'a train can/may arrive'

Modality (ModalP) and aspect (AspP) occur between T and the RP that contains the lexical verb (V) and the clitic SE, as shown in (25). Recall from the discussion in Section 3.2 that encliticisation of overt *-ik* is illegal with overt morphology in the functional head immediately outside RP. So when Asp is realised as frequentative *-gAt*, encliticisation of *-ik* to Asp gives rise to a violation of the LCA, and the clitic SE is forced to remain silent. This accounts for (24a).

(25) [$_{CP}$ C [$_{MoodP}$ Mood [$_{TP}$ T [$_{ModalP}$ Modal [$_{AspP}$ Asp [$_{RP}$ [$_{VP}$ … V …] [$_{R'}$RELATOR [SE=*-ik*]]]]]]]]

The modal *-hAt* in (24b) requires a little more discussion because of the fact that overt *-ik* is not categorically excluded in its presence. Though I have no independent evidence at this time to back up this claim, what I would like to suggest is that there is variation in the Hungarian-speaking community with respect to the treatment of *-hAt* as the head or the specifier of ModalP. Speakers who treat *-hAt* as the exponent of Modal^{o} will perforce reject all combinations of *-hAt* and *-ik*, requiring the use of the silent allomorph of SE in the presence of *-hAt*. But speakers who treat *-hAt* as a modal adverbial and locate it in SpecModalP do not assign any phonological content to Modal^{o}, allowing this head to serve as a legitimate host for the overt enclitic *-ik*, in keeping with the LCA.

3.4 *-ik* and *-Ód*, *-ul*

In (2), repeated here as (26), the b-example (to which Márkus 2015 refers as the 'half passive', a term intended to be distinct from the familiar 'medio-passive' and 'anticausative') sees *-ik* co-occurring with the suffix *-Ód*, which has been treated as the exponent of the functional head Voice in the extended projection of V (see Halm 2020), a treatment that I will adopt here for concreteness' sake.

(26) a. *János be-csuk egy ablakot.*
János VM-close a window.ACC
'János is closing a window.'
b. *Egy ablak be-csuk-ód-ik.*
A window VM-close-ÓD-IK
'A window is closing/getting closed.'

If the Voice head exponed as *-Ód* found itself immediately outside the RP within which the predication relation between the verbal core and SE=*-ik* is established, it would be the first potential host for *-ik*, and encliticisation of *-ik* to *-Ód* would incur a violation of the LCA. So the fact that *-Ód* does in fact co-occur with *-ik* leads us, by the logic of the foregoing discussion about the compatibility of overt *-ik* with verbal morphology of various sorts, to the conclusion that Voice=*-Ód* is contained in the substructure that finds itself in the specifier of RP, as illustrated in (27).

(27) $[_{RP}$ [*be-csuk-ód*] $[_{R'}$ RELATOR [SE=*-ik*]]]

In striking contrast to *-Ód*, the suffix *-ul*, which occurs on the inchoative counterparts to transitive verbs in *-ít*, is systematically incompatible with *-ik*, as shown in (28). It is plausible to treat *-ul* in the right-hand column of (28) as a 'light verb', the inchoative pendant to the causative 'light verb' *-ít* seen in the left-hand column. If the incompatibility of *-ul* and *-ik* is to have a structure-based explanation, along the lines of the preceding discussion, then this 'light verb' must be structurally located outside the reverse predication structure of which SE is the subject: only then can the presence of overt *-ul*, right outside RP, force SE to be represented by its null exponent.[6]

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6. For the inchoative verb *nyíl-ik* 'open, get opened', the antonym of *csuk-ód-ik* in (26b), it is sensible to think that *nyíl* is bimorphemic (cf. transitive *nyit*), with *l* as one of the morphemes. If the *l* in *nyíl-ik* is the same as the *l* in *-ul*, then the fact that *nyíl* combines with *-ik* entails that the 'light verb' incompatible with *-ik* is exponed just as *u*, and that *-u* and *-l* are separate morphemes (the former a 'light verb', the latter probably an allomorph of the Voice head exponed as *-Ód*).

(28) a. *alak-ít* 'form$_{CAUS}$, give shape' *alak-ul(*-ik)* 'form$_{INCH}$, take shape'
b. *bor-ít* 'cloud$_{CAUS}$' *bor-ul(*-ik)* 'cloud$_{INCH}$'
c. *ford-ít* 'turn$_{CAUS}$' *ford-ul(*-ik)* 'turn$_{INCH}$'
d. *pir-ít* 'redden$_{CAUS}$' *pir-ul(*-ik)* 'redden$_{INCH}$'

4. SE in the verbal domain (II): Transitive and unergative verbs

4.1 *-ik* and transitive verbs of ingestion

A *prima facie* incongruous fact about the distribution of *-ik* in Hungarian is that it occurs on the ingestive verbs *esz-ik* 'eat' and *isz-ik* 'drink': whenever the subject of these verbs is third person singular and there is no definite accusative object, *-ik* shows up in the present tense.

(29) a. *János esz-ik egy sütit.*
János eat-IK a pastry.ACC
'János is eating a pastry'
b. *János isz-ik egy sört.*
János drink-IK a beer.ACC
'János is drinking a beer.'

How can ingestive verbs (which would not strike the casual observer as reflexive) that take an accusative object feature *-ik*, treated as a reflexive clitic, in their morphosyntax?

Before answering this question, let me mention first of all that Hungarian is not an abstruse outlier in the linguistic universe in treating ingestive verbs on a par with reflexive and medio-passive verbs. Basing herself on a survey of thirty-two of the world's languages, Krejci (2012) finds that such behaviour of ingestives is not at all unusual cross-linguistically (see also, for eating/drinking cross-linguistically, Newman 2009). Krejci presents an extended argument to the effect that ingestive verbs, like medio-passives, are reflexive in their predicate – argument structure. In this light, the occurrence of *-ik* on 'eat' and 'drink' in Hungarian is by no means exceptional.

But what does it mean to say that ingestive verbs are reflexive? One would perhaps be inclined to think here of a parallel between *to eat* and *to feed oneself* – but that would be a red herring: neither the syntax nor the semantics of *eat* is equivalent to *feed oneself* (see Krejci 2012). I believe that a much more useful analogue is constructions such as those in (30) and (31), called 'personal dative' (PD) con-

structions in Horn (2008).[7] The coidentification of the subject and the postverbal pronominal element – which in English 'personal dative' constructions is usually a weak pronoun rather than a reflexive – is what provides the perfect foundation for an explanation of the reflexive behaviour of digestive verbs.

(30) a. *I'm gonna have me a bath.*
b. *I'm gonna have myself a bath.*

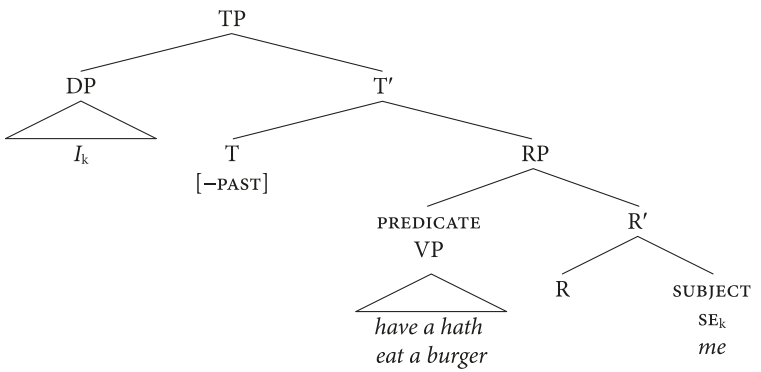
(31) a. *I'm gonna eat me a hamburger.*
b. *I'm gonna eat myself a hamburger.*

Horn (2008:180) argues that 'the PD contributes a conventional implicature of typically benefactive subject affect, relating to the satisfaction of the actual or perceived intention, goal, or preference of the subject'. With reference to the particular examples in (30) and (31), I will translate this as follows:

(32) *I'm gonna* [*have a bath/eat a hamburger*]$_i$ & [*doing so*]$_i$ *will satisfy my current intentions.*

The event of having a bath or eating a hamburger is executed by the subject, and at the same time the event in question benefits the subject by satisfying the subject's intentions. The referent of the subject is thus doubly linked to the event – once as the agent (familiarly), and once as the experiencer/beneficiary. The structure in (33) (where RP functions very much like an ApplP 'in reverse') expresses this double linking directly:

(33)

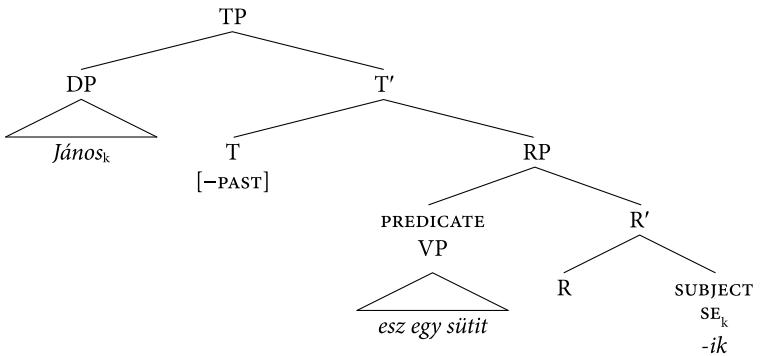


7. Horn only calls the pronouns in the a-examples 'personal datives'; he treats the b-examples differently. Huddleston & Pullum (2002:1488) write: 'While *I caught myself some fish* implies that the fish were specifically for me, %*I caught me some fish* does not.' To the examples in (30) and (31), this difference does not apply.

The event (denoted by the VP in SpecRP) is predicated of a reflexive clitic.[8] Because the predication structure formed by predicating VP of SE is not fully saturated (due to the fact that SE is a variable unbound in RP), it is predicated in turn of the subject in SpecTP, with which SE is coindexed.

The structure in (33), for 'personal dative' constructions of the type in (30) and (31), is very much like the structures encountered for SE-constructions in Section 3. With (33) in place, the analysis of Hungarian *esz-ik* 'eat-IK' constructions is just a matter of changing the lexical items to arrive at (34), for the particular example in (29a). The structure in (34) is syntactically identical with the one in (33).

(34)



As in the case of (33), the event denoted by the VP is related to the referent of the subject twice: János is both experiencing the event (his appetite being satisfied by it) and wilfully executing it. János is having him some pastry, in other words. *Mutatis mutandis*, the same is true for the beer-drinking event in (29b). Thus, Hungarian represents ingestive events with an 'institutionalised' PD.

The syntax of (33) and (34) is transitive: no argument is raised out of VP and promoted to subject in these structures. It is not surprising, therefore, that the *-ik*-marked ingestive verb is capable of assigning accusative case to its internal argument. Nor is it surprising that when the object is definite, no exponent of the reflexive clitic SE can surface (whether to the left or to the right of the marker of the objective/definiteness conjugation; see (35)): Hungarian, quite in general, imposes a very strict clitic co-occurrence restriction on its morphosyntax, so strict that no two clitics can co-occur on the surface in a simple clause; so-called 'definite agreement' involves an object clitic (see Den Dikken 2018), and the presence

8. For Horn (2008), it is precisely the absence in English of a weak reflexive clitic that allows English to use a weak pronoun as the 'personal dative'. I agree with Horn that *me* here functions like SE – it is the exponent of SE.

of this object clitic causes the SE-clitic not to be overtly expressed (being represented instead by its zero allomorph; recall Section 3.2).

(35) *János esz(*-ik)-**i**(*-ik) a sütit.*
János eat-IK-DEF-IK the pastry
'János is eating the pastry.'

Closing this section on the use of *-ik* with transitive verbs of ingestion, let me emphasise that this use is directly in line with the uses of *-ik* surveyed in Section 3: *-ik* is once again the exponent of a reflexive clitic, this time serving as the beneficiary or experiencer of the event denoted by the VP, just as in (colloquial) English 'personal dative' constructions of the type in (30) and (31). The connection between Hungarian ingestive *-ik* verbs and English with 'personal dative' constructions (not previously noted in the literature, to my knowledge) is striking.

4.2 *-ik* and unergative activity verbs

From the discussion of transitive *-ik* verbs of ingestion, it is but a small step to unergative denominal activity verbs featuring *-ik* such as the ones in (36), which are the output of a productive strategy involving the addition of the verbaliser (VBR) *-(V)z* to the noun. It would be pointless to try and give an exhaustive list of such verbs: new instances can freely be formed based on newly coined nouns.

(36) a. *bor-oz-ik*
wine-VBR-IK
'drink wine'
b. *sör-öz-ik*
beer-VBR-IK
'drink beer'
c. *bicikli-z-ik*
bicycle-VBR-IK
'bike'
d. *internet-ez-ik*
internet-VBR-IK
'surf the web'
e. *szörf-öz-ik*
surf-VBR-IK
'surf'
f. *tenisz-ez-ik*
tennis-VBR-IK
'play tennis'

The denominal activity verbs formed with the aid of the verbaliser *-(V)z* overwhelmingly take *-ik*, despite being unergative rather than reflexive or unaccusative. A connection with the occurrence of *-ik* on ingestive verbs is eminently plausible – especially, of course, in the case of (36a,b), for which an analysis of *-ik* as a reflexive clitic expressing Horn's (2008) 'personal dative' recognises the fact that drinking beer or wine is typically done for the satisfaction of the drinker's needs or desires. English can render these cases by using *have* and a 'personal dative', as shown in (37a,b).

(37) a. *I'm gonna have me a beer.*
b. *I'm gonna have me a glass of wine.*
c. *I'm gonna do me some biking.*
d. *I'm gonna do me some websurfing.*
e. *I'm gonna do me some surfing.*
f. *I'm gonna play me some tennis.*

Biking, surfing the web or the waves, and playing tennis are ways of satisfying basic intentions as well. To Hungarian (36f), English (37f) is a direct 'personal dative' counterpart (Fodor 2017 in fact cites this exact example); and in combination with the light verb *do*, English can also produce 'personal dative' constructions with the predicates used in the Hungarian examples in (36c–e), as shown in (37c–e).

Once we have this outlook on (36), it need no longer come as a surprise that there are non-denominal unergative activity verbs with 'personal *-ik*' as well, including *alszik* 'sleep', *fürdik* 'bathe' and *úszik* 'swim'. For all of the cases reviewed in this section, I propose an analysis along the same lines as the one in (34) for transitive *esz-ik*: the event denoted by the VP is doubly linked to the subject, first via reverse predication (with SE=*-ik* representing the beneficiary/experiencer) and subsequently via canonical predication (involving the entire reverse predication structure as the predicate).

If this is right, Hungarian represents quite a wide range of events with an 'institutionalised' PD. The PD construction is inherently limited to expressions of events compatible with what Horn (2008:180) calls the 'conventional implicature of typically benefactive subject affect, relating to the satisfaction of the actual or perceived intention, goal, or preference of the subject'. Besides ingestion of food or liquids, humans have other needs and intentions as well, like having a bath, taking a nap, or having a swim – and the expression of such needs and intentions also gives rise to the use of *-ik* in Hungarian. There are bound to be accidental gaps in this picture: natural language is full of those. But overall, it seems clear that the distribution of *-ik* with transitive and unergative verbal events follows the same rules and exploits the same syntax as the 'personal dative' construction of

English. In both (and in the case of Spanish variable *se*-marking as well: see De la Mora 2011 for discussion of Spanish *comer-se* 'eat-SE', *beber-se* 'drink-SE', *tomar-se* 'drink-SE'), we find that, as Newman (2009: 24) puts it, 'experiential, extra-linguistic realities … motivate aspects of linguistic behavior'.

5. Conclusion

In this paper I have presented a unified outlook on the syntax of SE-constructions, couched in terms of the syntax of predication proposed in Den Dikken (2006), with SE systematically represented as the subject of a reverse predication. This syntax applies both in the nominal and in the verbal domain, and provides precise explanations for the distribution of overt exponents of SE and its null allomorph. The discussion in this paper has placed particular emphasis on the uniformity of the Hungarian element *-ik*, treated here as an exponent of the reflexive clitic SE in all of its occurrences.

Though (for reasons of space) the empirical discussion in this paper has primarily focused in the verbal domain on reflexive, unaccusative and 'personal dative' constructions with *-ik*, the uniform treatment of *-ik* as a reflexive clitic extends as well to the archaic *-(t)At-ik* '-CAUS-IK' passive (as in (38)), analysed in Den Dikken & Dékány (2019) from the present paper's perspective on *-ik*, and to antipassive *-ik* (illustrated in (39)), where *-ik* is the subject of the reverse version of the predication structure representing the 'object of' relation proposed in Resenes & Den Dikken (2012) and Den Dikken (2015) (on reflexive/antipassive polysemy, see, e.g., Nedjalkov 2007).

(38) *a levél meg-ír-at-ik*
the letter PV-write-CAUS-IK
'the letter is being written'

(39) *a szomszédom ép-ít-kez-ik*
the neighbour.1SG build-CAUS-REFL-IK
'my neighbour is building'

For anticausatives and medio-passives with *-ik*, Alexiadou *et al.*'s (2015) and Schäfer's (2017) analysis of SE as merged in SpecVoiceP is readily translatable into the reverse predication approach taken here. But a reviewer of this paper lists a variety of semantic arguments given in the literature that indicate that a treatment of SE as the subject of a reverse predication would not be straightforwardly applicable to these constructions (e.g., Rappaport Hovav's 2014 *John hit the door a number of times such that it finally opened (*by itself)*). I must leave the discus-

sion of these arguments for some future occasion, but remain optimistic that anti-causative and medio-passive constructions will fully fall in line.

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