

The structure of Old Hungarian *-t* gerunds *

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1. Introduction

Old Hungarian (896–1526 A.D.) had a gerund that employed the non-finite ending *-t*. This gerund obligatorily bore possessive morphology, while regular nouns could also be unpossessed.

- (1) es ok a heg-rol le-zall-**att-oc**-ban ...
and they the mountain-DELAT down-come-t-3PL-INESS
‘and they, while coming down the mountain, ...’ (1466, Munich Codex 101)

How can we encode in the grammar that the *-t* gerund must be possessed?

The gerund can optionally co-occur with an unmarked or Dative marked nominal that provides a subject with independent reference.

- (2) meg-akar-ia nomoreit-ani **èn** ièlèn **vol-t-om-ban**
PERF-want-3SG cripple-INF my present be-t-1SG-INESS
‘he wants to cripple him in my presence’ (mid-15th c; Vienna Codex 64)
- (3) hall-ott-ac **o-nèk-i** è ièlènseg **te-t-è-∅-t**
hear-PST-3PL he-DAT-3SG this deed do-t-POSS-3SG-ACC
‘they heard of his doing this deed’ (1466, Munich Codex 98vb)

What is the syntactic status of the unmarked/Dative marked nominal?

The data come from the era of the codices, i.e. late 14th to early 16th century. Previous descriptive works (esp. Károly, 1956) have collected some examples; I have also used the corpus query tool of the *Hungarian generative diachronic syntax* project (OTKA-78074) available at <http://corpus.nytud.hu/hgds-dev/hu-search.html>.

NB: In Modern Hungarian only a few (near-)lexicalized forms remain (c.f. Radics, 1992 for more examples), very few verbs, some frozen in 3SG:

- (4) jár-t-om-ban, hol-t-om-ig
walk-t-POSS.1PL-INE death-t-POSS.1SG-till
‘in my going about, until my death’

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Some are lexicalized as Ns, Ps, and Adv

- (5) a. nap-kel-t-e
sun-rise-t-POSS
'sunrise' N
- b. men-t-é-n
go-t-POSS-SUP
'along' P
- c. jár-t-á-nyi erő
walk-t-POSS-ful strength
'strength enough to walk' Adv

2. The Old Hungarian *-t* gerund

2.1. External distribution: nouny

-t gerunds are obligatorily possessed, their morphology is identical to that of possessed nouns.

regular nouns with an R-expression possessor:

- (6) noun > possessedness marker > plural > case
- (7) gonossag-nak **zaw-a-ý-ra**
evil-DAT word-POSS-PL-SUBLAT
'on (hearing) words of evil' (before 1494, Festetics Codex 66)

-t gerunds with an R-expression subject:

- (8) verb > *-t* non-finite ending > possessedness marker > case (gerunds cannot be pluralized)
- (9) minden-ok-nek **lat-t-a-ra**
every-PL-DAT see-t-POSS-SUBLAT
'while everyone saw' (early 16th c; Lázár Codex 33v)

regular nouns with a with pronominal possessor:

- (10) noun > possessedness marker > plural > possessive agreement > case marker
- (11) een **wth-a-ý-m-ath**
my way-POSS-PL-1SG-ACC
'my ways' (before 1494, Festetics Codex 5)

With a first or second person possessor of a singular noun, the possessedness marker and the possessive agreement are fused (or to put it another way, the former suffix is dropped)

- (12) een ýmadsag-om-ath
my prayer-1SG-ACC
'my prayer' (before 1494, Festetics Codex 89)

-t gerunds with a pronominal subject: as the gerund cannot be pluralized, the possessedness marker and the agreement are always fused

- (13) verb > *-t* non-finite ending > possessive agreement > case marker
- (14) háromzèr taga-č-meg [èngem-èt esmèr-**t-ed-èt**]
three.times deny-2SG-PERF I-ACC know-t-2SG-ACC
'you deny your knowing me thre times' (1466, Munich Codex 81 va)

The gerund is fully productive in Old Hungarian: different possessive suffixes are possible

1st singular

- (15) **mong-ac** ȝ zúu-ȝk-bèn [ȝ menden gonossag-ok-rol
say-3PL their heart-3PL-INCESS their every sin-3PL-DELAT
meg-èmlèkez-t-em-èt
PERF-remember-t-1SG-ACC
'they say in their heart that I remember every evil deed of theirs'
(mid-15th c; Vienna Codex 189)

2nd plural

- (16) Ne zegyenl-etek [alamyzna-ert **ment-ett-ek-et**
not ashamed-3PL alms-FINALIS go-t-PL-ACC
'do not be ashamed of going for alms' (c. 1440, Jókai Codex 81-82)

The gerund is fully productive in Old Hungarian: different case endings are possible

Nominative (zero morpheme)

- (17) the wer-ud hull-oth-ya
your blood-2SG drop-t-POSS
Lit: 'the falling of your blood' (1192-1195, Lamentations of Mary 10)

Dative

- (18) [poncius pilatus Iudea-ban **birolkot-t-a-nac**] idè-ie-bèn
pontius pilate Iudea-INCESS govern-t-POSS-DAT time-POSS-INCESS
'during the reign of Pontius Pilate in Iudea' (1466, Munich Codex 56vb)

Inessive ('in') – state adverbial

- (19) vetkez-t-em [hyt-em-nek tyzenket agazat-ya-t nem **tart-at-om-ba**]
sin-PST-1SG faith-1SG-DAT twelve branch-POSS-ACC not keep-t-1SG-INCESS
'I have sinned in not adhering to my faith's twelve branches'
(early 16th c; Virginia Codex 7r)

Sublative ('onto') – temporal adverbial

- (20) minden-ȝk-nek **lat-t-a-ra**
every-PL-DAT see-t-POSS-SUBLAT
'while everyone saw' (early 16th c; Lázár Codex 33v)

NB: This non-finite form has a close parallel in Mansi, where the *-ke* gerundival ending is obligatorily followed by possessive agreement. The Mansi gerund is different, however, in that it always functions as a temporal adverbial and the case marking is invariantly the *-t* locative ending.

- (21) màn ūsn jal-ke-w-t
we city-LAT go-GERUND-POSS.1PL-LOC
'when we go to the city' (Riese, 2001, 70)

2.2. Internal structure: verby

The subject of *-t* gerunds can be coreferential with a main-clause argument (controlled PRO).

- (22) tud-om, **alut-t-om** sem leszen
 know-1SG sleep-t-1SG not will.be
 ‘I know that I won’t have any sleep’ (1530, Level 95)

-t gerunds can also co-occur with an overt DP that supplies a subject with independent reference. These are either morphologically unmarked or Dative marked.

- (23) meg-akar-ia nõmoreit-ani **èn** ièlèn **vol-t-om-ban**
 PERF-want-3SG cripple-INF my present be-t-1SG-INESS
 ‘he wants to cripple him in my presence’ (mid-15th c; Vienna Codex 64)
- (24) hall-ott-ac **õ-nèk-i** è ièlènseg **te-t-è-ø-t**
 hear-PST-3PL he-DAT-3SG this deed do-t-POSS-3SG-ACC
 ‘they heard of his doing this deed’ (1466, Munich Codex 98vb)

Apart from a subject, a *-t* gerund can be modified by an object, adverbs, and negation. These gerunds are always head-final. (É. Kiss, 2013 argues that Proto-Hungarian was an SOV language.)

object, adverb, negation

- (25) vetkeztem ... [en erzekenseg-ÿ-m-et io-ra nem
 sin-PST-1SG my sensibility-POSS.PL-1SG-ACC good-SUBLAT not
bÿr-t-om-ba.]
 hold-t-1SG-INESS
 ‘I have sinned in not using my sensibility for good’ (early 16th c; Virginia Codex 2v)

3. Previous analysis

Tóth (2011) argues that *-t* gerunds involve a nominalizing head Nom, which takes an extended verbal projection as its complement. It nominalizes its complement, allowing it to be embedded under nominal functional projections. I will adopt this idea.

- (26) [_{NomP} *-t* [_{clause} ...]]

Tóth (2011) argues that the unmarked DP of (23) and the Dative DP of (24) are in the subject position of the nominalized clause.

- (27) [_{NomP} *-t* [_{TP} DP(Nom/Dat) [_{vP} ...]]]

So their structure is

- (28) meg-akar-ia nõmoreit-ani [[_{TP} **èn** ièlèn **vol**]-**t-om-ban**]
 PERF-want-3SG cripple-INF my present be-t-1SG-INESS
 ‘he wants to cripple him in my presence’ (mid-15th c; Vienna Codex 64)
- (29) hall-ott-ac [[_{TP} **õ-nèk-i** è ièlènseg **te**]-**t-è-ø-t**]
 hear-PST-3PL he-DAT-3SG this deed do-t-POSS-3SG-ACC
 ‘they heard of his doing this deed’ (1466, Munich Codex 98vb)

Problems:

1. why do these nominalized clauses need to be possessed? Ordinary nouns and other types of deverbal nominalizations can be unpossessed:

unpossessed regular noun

- (30) az angyal
the angel
'the angel' (1521, Könyvecse 2v)

unpossessed *-ás/és* nominalization

- (31) Az ysten nep-e-th ... hala **ad-as-ra** ynt-y az
the god people-POSS-ACC thanks give-NOM-SUBLAT warn-3SG the
profeta
prophet
'the prophet warns God's people to give thanks'
(late 15th – early 16th c; Apoc Codex 12)

2. Old Hungarian has non-finite (infinitival) clauses with Dative subjects and non-finite (participial) clauses with Nominative subjects, but no (other) non-finite has a subject that is optionally Dative or Nominative

infinitival Dative subject

- (32) (ke)kel-ala [**ew zerzet-e-nek** nagy foka[[fag-ban terjed-nj]
must-PST his holy.orders-POSS-DAT big multitude-INESS spread-ACC
'his order had to spread among many people(s)' (c. 1440, Jókai Codex 13)

participial Nominative subject

- (33) [**zent Clara** zerz-et-e *pron_i*] kener-ek-ett_i
holy Clara procure-t-3SG bread-PL-ACC
'the loaves of bread procured by Saint Clara' (c. 1440, Jókai Codex 75)

4. Analysis

4.1. The status of the DP providing independent reference

The type of nominal in Old and modern Hungarian that is optionally unmarked or Dative marked is the possessor.

- (34) vr-onk ihūs neu-e-ben
lord-1SG Jesus name-POSS-INCESS
'in the name of Jesus our Lord' (1516, Gömörly codex 119r) unmarked possessor
- (35) vr Jefu[-nak neu-e-ben
lord Jesus-DAT name-POSS-INCESS
'in the name of the Lord Jesus' (1516-1519, Jordánszky Codex 773) Dative possessor

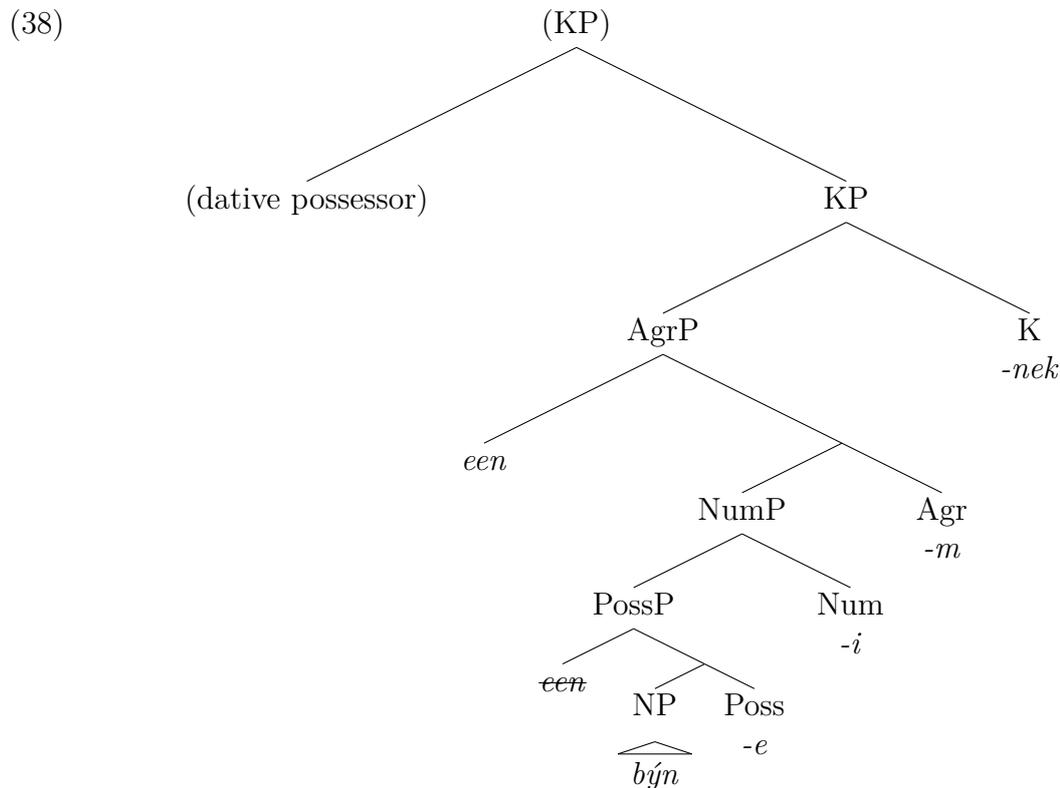
The DP providing independent reference is marked like a regular possessor, and the *-t* gerund is obligatorily marked like a possessed noun.

Proposal: I suggest that these DPs are represented in the structure as possessors of the nominalization rather than as subjects internal to the nominalized clause. The clausal subject is always PRO. Assuming that possessors are merged in spec, PossP:

(36) [PossP DP(Nom/Dat) [NomP *-t* [TP PRO [vP ...]]]

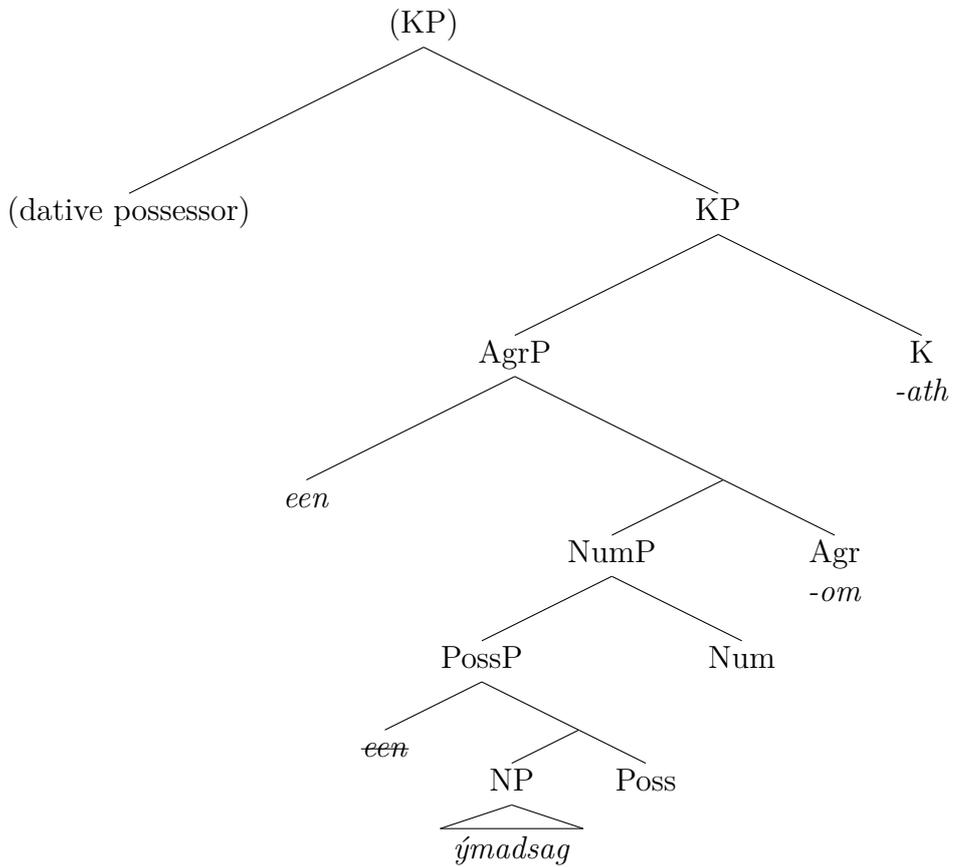
The structure of possessed nouns (based on insights in Szabolcsi and Laczkó (1992); Szabolcsi (1994); Bartos (1999, 2000); den Dikken (1999); É. Kiss (2002); Laczkó (2001)):

(37) *een bín-e-ý-m-nek saar-y-ban*
 my sin-POSS-PL-POSS.1SG-DAT mud-POSS.PL-INESS
 ‘in the mud of my sins’ (before 1494, Festetics Codex 377)



(39) *een ýmadsag-om-ath*
 my prayer-1SG-ACC
 ‘my prayer’ (before 1494, Festetics Codex 89)

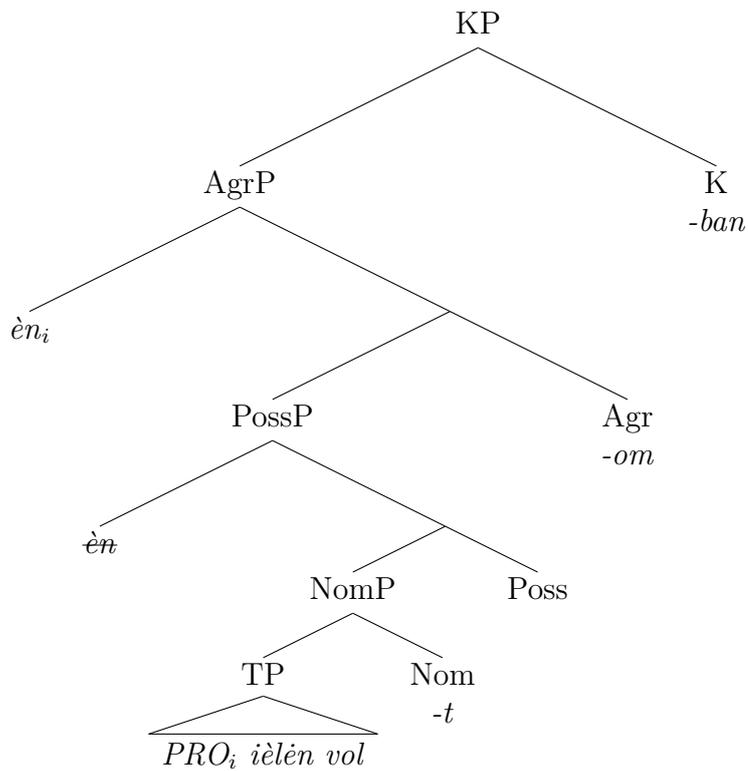
(40)



The structure of *-t* gerunds, unmarked possessor:

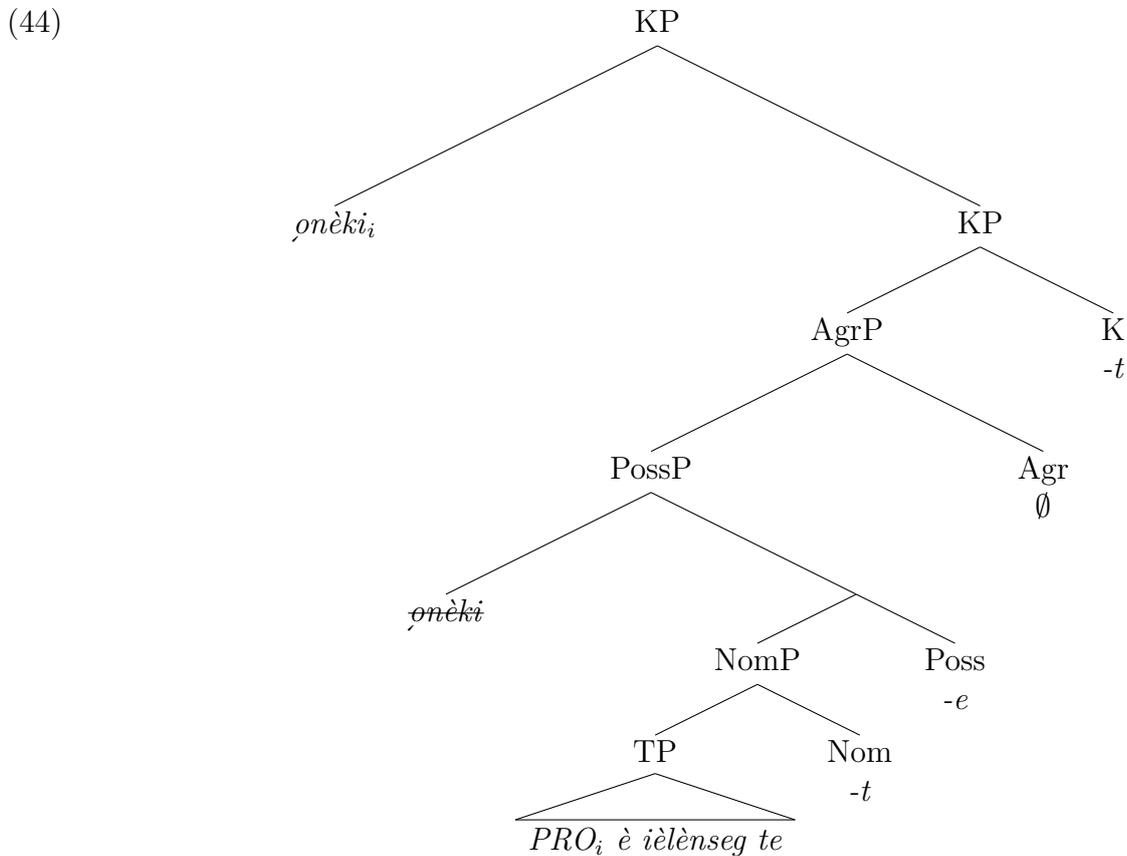
- (41) meg-akar-ia ñomoret-ani [èn ièlèn vol-t-om-ban]
 PERF-want-3SG cripple-INF my present be-t-1SG-INESS
 'he wants to cripple him in my presence' (mid-15th c; Vienna Codex 64)

(42)



The structure of *-t* gerunds, Dative possessor:

- (43) hall-ott-ac [TP **o-nèk-i** [è ièlènseg **te-t-è-∅-t**]]
 hear-PST-3PL he-DAT-3SG this deed do-t-POSS-3SG-ACC
 ‘they heard of his doing this deed’ (1466, Munich Codex 98vb)



What about *-t* gerunds that Tóth, too, analyzed as having a PRO subject (i.e gerunds coreferent with a matrix argument)?

coreference with the (*pro*-dropped) subject

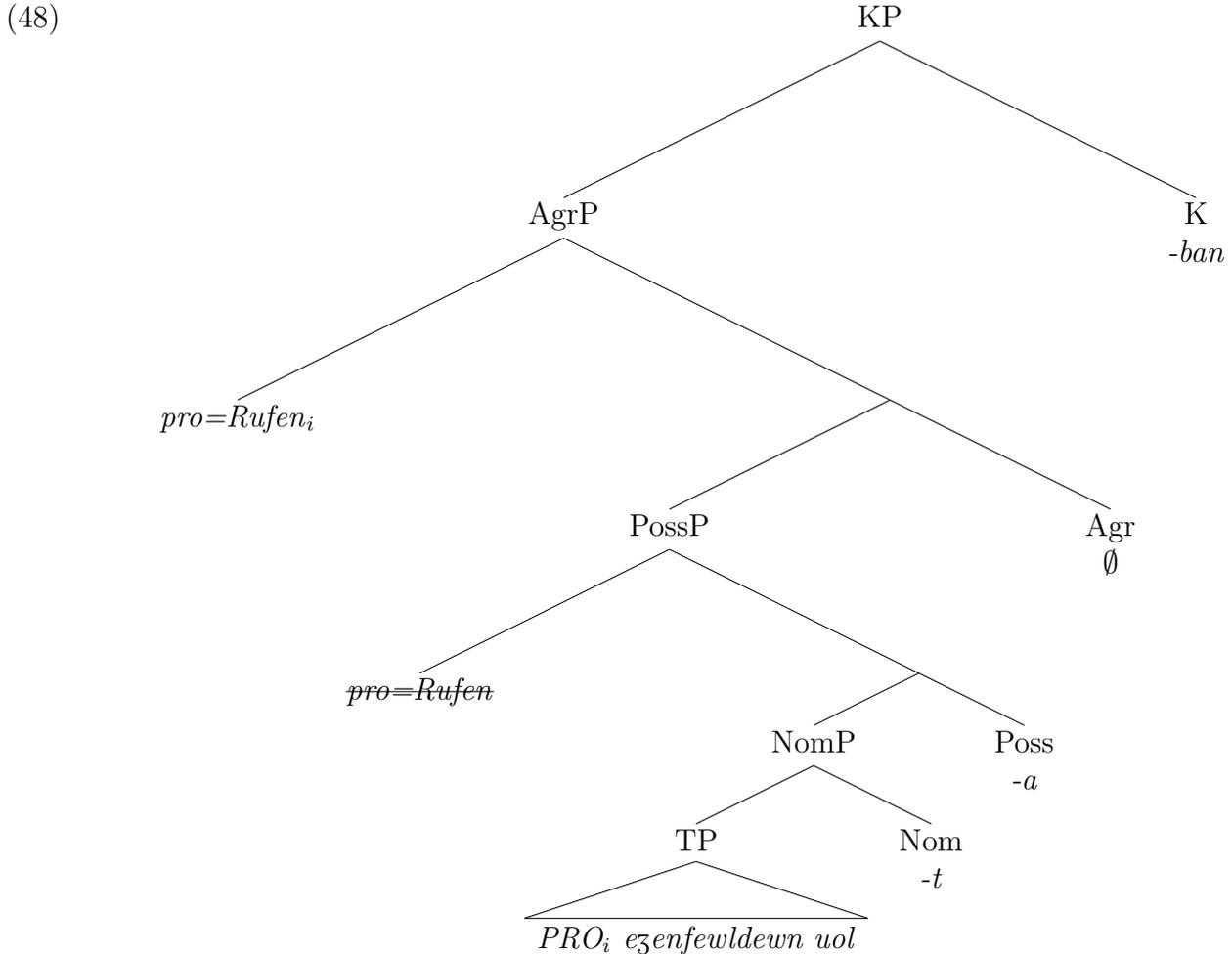
- (45) háromzèr taga-č-még [èngem-èt **esmér-t-ed-èt**]
 three.times deny-2SG-PERF I-ACC know-gerund-2SG-ACC
 ‘you deny your knowing me thre times’ (1466, Munich Codex 81 va)

coreference with the object

- (46) frater **Rufen-t** nem-ketel-t-e zent-nek-lenÿ [ež-en-fewld-ewn
 father Rufen-ACC not-doubt-PST-3SG saint-DAT-be.INF this-SUP-earth-SUP
uol-t-a-ban]
 be-t-POSS-INNESS
 ‘he did not doubt that father Rufen was a saint already on this earth’
 (c. 1440, Jókai Codex 56)

- (47) *hala-th ad ysten-nek hogy ewk-eth [az ew yo wol-t-a-bol] meg oltalmaz-za*
 thanks-ACC give.3SG God-DAT that they-ACC the his good-be-t-POSS-ELAT PERF
 protect-SBJV.3SG
 ‘Lit: he gives thanks to God for protecting him out of his goodness’ (late 15th – early 16th c; Apoc Codex 85)

Given the presence of the possessive morphology, I suggest that these clauses contain a *pro*-dropped possessor that is accidentally coreferent with the relevant matrix argument.



This way *-t* gerunds have a unified structure regardless of the presence or absence of an overt DP providing a referentially independent subject.

Pro-drop of possessors is common in Old Hungarian (as well as contemporary Hungarian):¹

- (49) *Az ki-k tanóság-ra nev-ed-ben ad-at-nak*
 that who-PL testimony-SUBLAT name-2SG-INESS give-PASS-3PL
 ‘those who are sent to give testimony in your name’
 (1529, *Lavs Sancti Nicolai Pontificis* 2/5)

¹Compare (49) to the following overt possessors:

unmarked possessor

- (i) *te nev-ed-ben*
 your name-2SG-INESS
 ‘in your name’
 (1529, *Lavs Sancti Nicolai Pontificis* 2/7)

Dative possessor

- (ii) *te-nek-ed New-ed*
 you-DAT-2SG name-2SG
 ‘your name’
 (1526-1528, *Székelyudvarhely Codex* 29 v)

The movement alternative:

A possible alternative is that the subject of the downstairs clause corresponds to a trace rather than PRO, i.e. the unmarked/Dative marked DP providing a subject with independent reference originates as the subject of the embedded clause, and undergoes raising to the possessor position. (Note the control has a movement analysis, too, cf. Boeckx and Hornstein, 2003, 2004, 2006; Bartos, 2006; Boeckx et al., 2010b,a; Hornstein and Polinsky, 2010.)

In this analysis, the subject would probably move for case.

Problem No1: there is no reason to assume that the subject cannot get case downstairs – other non-finites are perfectly capable of assigning case to their subject.

-t adverbial participle (obsolete by now)

- (50) [**azoc** èuèz-**ett**-ec kedig] o èl-alu-ec
 those row-PART-3PL CONJ he PRT-SLEEP-3SG
 ‘as they sailed he fell asleep’ (1466, Munich Codex 63vb)

-t adjectival participle w/ object gap

- (51) mond ... Jesus [**zent Mathe** yr-**t**-a] kenyw-ee-nek heeted
 say.3SG ... Jesus holy Matthew write-PART-3SG book-POSS-DAT seventh
 reez-ee-ben.
 chapter-POSS-INCESS
 ‘Jesus says in chapter seven of Saint Matthew’ (c. 1525, Érdy Codex 131)

-ván/vén adverbial participle

- (52) [Es **azoc** e-**uèn**] ve-ue i^c a. kenèr-èt
 and those eat-PART take-PST.3SG Jesus the bread-ACC
 ‘And as they did eat, Jesus took bread’ (1466, Munich Codex 50vb)

infinitives

- (53) (ke)kel-ala [**ew 3er3et-e-nek** nagÿ ʃokaʃʃag-ban terÿed-**nÿ**]
 must-be.PST his order-POSS-DAT big multitude-INCESS spread-INF
 ‘his order had to spread among many people’ (c. 1440, Jókai Codex 013)

Problem No2: unmarked possessors are caseless rather than Nominative (Bartos, 1999, 2000; É. Kiss, 2002; Dékány, 2011).

The participial analysis alternative:

Another possible alternative is that the *-t* ending is a participial ending, and the agreement of this non-finite is simple participial agreement rather than genuine possessive agreement.

Problem: This non-finite is also case-marked and has a nominal distribution, which is not typical of participles.

4.2. Representing obligatory possession

I assume with den Dikken (1999, 2006) that possession involves a predication structure, represented by a Rel(ator)P.

Rel⁰ has 2 arguments: the predicate and the subject of predication. Den Dikken argues that one of these is in the complement, the other is the specifier of Rel⁰, and both configurations shown below exist:

- (54) [RelP subject [Rel⁰ predicate]]
 (55) [RelP predicate [Rel⁰ subject]]

NB: Rel is not a designated (lexical or functional) category, it is a cover term for any head that mediates the predication relationship bw. a subject and a predicate.

Proposal: the *-t* nominalizer is a Rel⁰ head. Its 2 arguments are the clause to be nominalized, and the possessor. This derives the obligatory presence of the possessor and the possessive morphology, as Rel⁰'s arguments are obligatory.

The structure of *-t* gerunds: *-t* both nominalizes its complement and includes it into a predicative relation with the possessor.

(56) [RelP subject [Rel' Rel⁰ predicate]]

(57) [RelP possessor [Rel' Rel⁰(-t) clause]]

This changes the previous structures in the following way: possessors are introduced in spec, NomP, rather than spec, PossP.

Other nominalizing heads, e.g. *-ás/és* nominalizations: these are not Relators, so they simply nominalize their complement without introducing the predicative relationship and the possessor.

(58) Az ysten nep-e-th ... hala **ad-as-ra** ynt-y az profeta
 the god people-POSS-ACC thanks give-NOM-SUBLAT warn-3SG the prophet
 'the prophet warns God's people to give thanks' (late 15th – early 16th c; Apor Codex 12)

5. Conclusions

The basic problem of Old Hungarian *-t* gerunds: obligatorily possessed.

I argued that *-t* is a Relator type of nominalizer head. Its 2 arguments are the clause to be nominalized and the possessor.

I argued that the unmarked/Dative DP that provides a subject with independent reference is a possessor in DP rather than a subject in the clause.

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