

Case properties of Lithuanian Complex Event Nominalizations*

Milena Šereikaitė
University of Pennsylvania
milenas@sas.upenn.edu

3rd of January, 2020 LSA 94

1 Introduction

- This study investigates case and Voice properties of complex event nominalizations (CENS) in Lithuanian.
- Lithuanian CENS are marked with the suffixes *-i/ym-* (1-2) (Pakerys 2006; Vladarskienė 2010; Zaika 2016)¹

- | | |
|---|---|
| (1) a. pastat-as
building-NOM.M.SG
'a building' (n) | b. paminkl-o pastat- ym -as
monument-GEN building-NMLZ-NOM.M.SG
'building of monument' |
| (2) a. daž-ai
paint-NOM.M.PL
'paint' (n) | b. sien-ų daž- ym -as
walls-GEN paint-NMLZ-NOM.M.SG
'painting of walls' |

- CENS present a 'double possessive' pattern (Koptjevskaja-Tamm 2003). The agent and the theme appear in genitive and occur prenominaly.² This study focuses on the reading in (i).³

- | | |
|--|--------|
| (3) a. Jonas su-naik-in-o augal-us.
Jonas-NOM PRV-destroy-CAUS-PST.3 plants-ACC
'Jonas destroyed plants.' | Active |
| b. Jon-o augal-ų su-naik-in-im-as
Jono-GEN plants-GEN PRV-destroy-CAUS-NMLZ-NOM.M.SG
(i) 'Jonas' destruction of plants', (ii) 'destruction of Jonas' plants' | CEN |

- I demonstrate that the two genitives present in CENS are not two possessives (contra to Koptjevskaja-Tamm 2003). They are two structurally different cases.

*I thank Julie Anne Legate, Martin Salzmann and David Embick for comments and suggestions. I also thank the Syntax Reading Group at UPenn for feedback, the NELS 50 reviewers and audience.

¹Note that some nominals may lack nominalizing morphology, e.g., the suffixes *-i/ym-*, and yet they inherit the argument structure from their related verbs (Ambrazas et al. 1997:560; Pakerys 2006; Zaika 2016). For instance, a nominal *baimė* 'fear' as in (i-ii).

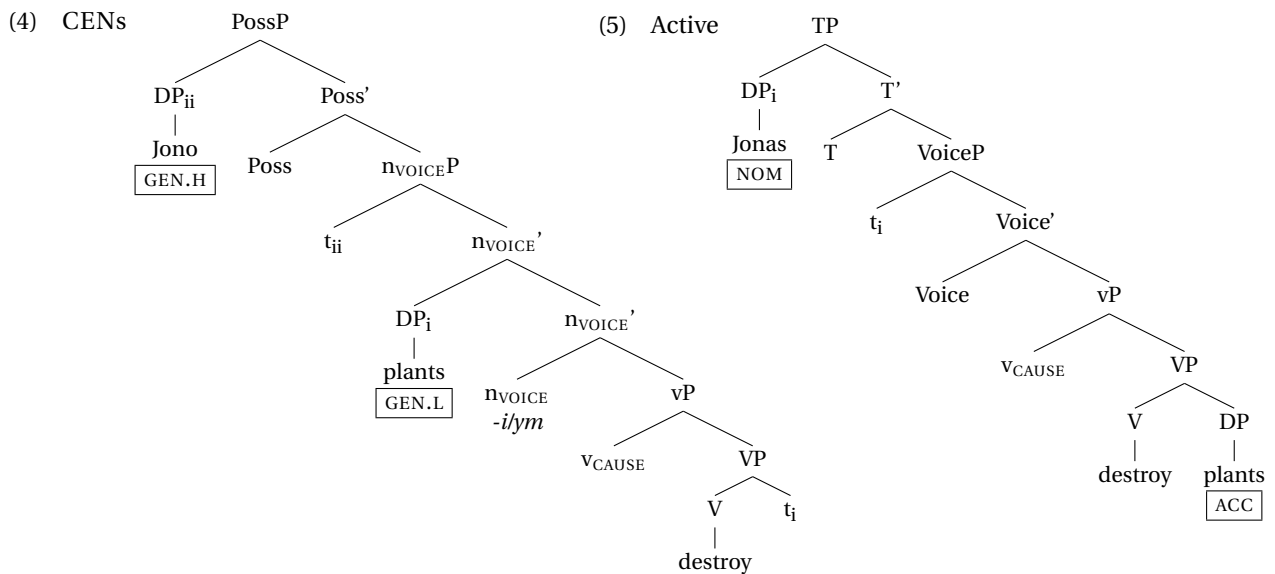
- | | |
|---|--|
| (i) Jis bij-o tams-os.
he.NOM afraid-PST.3 fear-GEN
'He is afraid of the dark.' | (ii) tams-os baim-ė
dark-GEN fear-NOM
'the fear of the dark' |
|---|--|

²'Double genitive' pattern is also found in languages such as Finnish (Joniken 1991; Brattico and Leinonen 2009), Japanese (Kishimoto 2006), Greek result nominals (Alexiadou 2001 and references therein), Estonian, Latvian and Maltese (Koptjevskaja-Tamm 2003).

³I translate Lithuanian nationalizations roughly as English nominals like *destruction*. Nevertheless, it should be noted that this translation is not accurate enough because English does not have the exact type of nominalizations found in Lithuanian. Therefore, nothing should be concluded from the choice of translation used in this talk.

Proposal:

- (i) CENS contain the n_{VOICE} head, (4), which behaves like a non-verbal Voice head (in line with Baker and Vinokurova 2009). This head assigns case to the theme and introduces agentive semantics.
- (ii) The genitive case assigned to the theme (GEN.L) is a structural case (Alexiadou 2001, a.o.), which can only be assigned under A-movement.
- (iii) The locus of structural GEN.L assignment is the nominalizing head n_{VOICE} and the theme raises to Spec $n_{VOICE}P$ position to receive the case.
- (iv) The agent is base-generated in Spec $n_{VOICE}P$ position where it is assigned an external argument theta role by n_{VOICE} . The agent raises to SpecPossP to receive GEN.H.



• **Road Map**

- Section 2 Basic Structure of Complex Event Nominalizations
- Section 3 Two types of Genitives
- Section 4 Structural vs. Inherent case
- Section 5 Conclusion

2 Structure of CENS

- Lithuanian nominalizations are CENS: they inherit the argument structure of their related verbs and bear a number of verbal properties.
- CENS contain a non-verbal Voice head, which I term n_{Voice} .

2.1 CEN

- Since the seminal work of Grimshaw (1990), three types of nominals can be distinguished:⁴

⁴Various types of nominals have been extensively discussed in the literature. See Alexiadou 2001, 2009, 2010; Borer 2001, 2013; Bruening 2013; Roeper and Van Hout 1999, ia.

- (i) **Complex Event Nominals** (CENs) license obligatory argument structure and denote complex events
- (ii) **Simple Event Nominals** denote an event but are not associated with an event structure
- (iii) **Result Nominals** refer to the result of an event or a participant⁵

- (6) a. The examination of the patients took a long time. Complex
- b. The examination took a long time. Simple
- c. The examination was on the table. Result

(Alexiadou and Grimshaw 2008:2)

- Following Alexiadou and Grimshaw's (2008) tests, these nominals behave like CENs:

- CENs allow telic modifiers like *in a couple of minutes*.

- (7) a. Jonas su-naik-in-o augalus per kelias minutes.
Jonas-NOM PRV-destroy-CAUS-PST.3 plants-ACC within couple minutes
'Jonas destroyed the plants in a couple of minutes.' Active
- b. [Jon-o augal-ų su-naik-in-im-as per kelias minutes]
Jono-GEN plants-GEN PRV-destroy-CAUS-NMLZ-NOM.M.SG within couple minutes
vis-us nutebin-o.
everyone-ACC surprise-PST.3
'Jonas' destruction of the plants in a couple of minutes surprised everyone.' CEN

- The theme is obligatory under a complex event reading suggesting that the CEN inherits the argument structure from the verb.

- (8) *[Jono su-naik-in-im-as per minutę] vis-us nustebin-o.
Jonas.GEN PRV-destroy-CAUS-NMLZ-NOM.M.SG within minute everyone-ACC surprise-PST.3
'Jonas' destruction (of something) in a minute surprised everyone.'

2.2 Identifying layers

- CENs have a number of verbal properties as is evidenced by the the presence of verbal morphology.
- CENs contain morphology that originates inside *vP*, but lack layers that originate outside *vP*.

		CEN	TP- <i>vP</i>
Inside <i>vP</i>	Causative <i>-in</i>	✓	✓
	Inner Aspect	✓	✓
	Secondary Imperfectivization	✓	✓
	Reflexive <i>-si</i>	✓	✓
Outside <i>vP</i>	Outer aspect	*	✓
	Habitual Aspect	*	✓

Table 1: Layers Identified

2.2.1 Causative morphology and Inner Aspect

- The CEN contains a *vP* layer as evidenced by the causative suffix *-in*; see (9).

⁵These nominals are also known as referring nominals.

- So-called lexical prefixes (Babko-Malaya 1999; Svenonius 2004, 2008) can be found in CENS e.g., *su-*, which stand for the Inner Aspect and originate within a vP (see Arkadiev 2011; Korostenskienė 2017; Šereikaitė 2017, 2018).⁶

- (9) a. Jonas **su-naik-in-o** aulag-us per kelias minutes.
Jonas-NOM PRV-destroy-CAUS-PST.3 plants-ACC within couple minutes
'Jonas destroyed the plans in a couple of minutes.' Active
- b. [Jon-o augal-ų **su-naik-in-im-as** per kelias minutes]
Jono-GEN plants-GEN PRV-destroy-CAUS-NMLZ-NOM.M.SG within couple minutes
vis-us nutebin-o.
everyone-ACC surprise-PST.3
'Jonas' destruction of the plants in a couple of minutes surprised everyone.' CEN

2.2.2 Secondary Imperfectivization

- Lexical prefixes have a perfective meaning which can be undergo secondary imperfectivization by adding the imperfective suffix *-inė-*. In Slavic, an imperfective suffix is argued to originate in AspP above a quantized VP (e.g., see Istratkova 2004).
- These suffixes originate lower than super-lexical prefixes associated with aspect outside a vP.

- (10) a. Jon-as su-pirk-**inė**-jo prek-ias.
Jonas-NOM PRV-buy-IMPERF-PST.3 goods-ACC
'Jonas was buying up (repetitively) the goods.' Active
- b. [Jon-o eketyv-us prek-ių su-pirk-**inėj**-im-as] vis-iems
Jonas-GEN effective-NOM.M.SG goods-GEN PRV-buy-IMPERF-NMLZ-NOM.M.SG everyone-DAT
patik-o
like-PST.3
'Everyone liked Jonas effective (repetitive) buying up of goods.' CEN

2.2.3 Reflexive clitic *-si-*

- The clitic *-si-*, which may have a reflexive meaning, is also permitted (11) (for general overview of the clitic see Geniušienė 1987; Korostenskienė 2017; Šereikaitė 2017).
- This clitic may originate inside a vP (Korostenskienė 2017) or may be realized in expletive VoiceP (Šereikaitė 2017).

- (11) a. Audin-iai nu-**si**-daž-ė raudon-a spalv-a per kelias minutes.
fabric-NOM PRV-RFL-paint-PST.3 red-INS color-INS within couple minutes
'Fabric dyed by itself with red color within a couple of minutes.' Active
- b. [audin-ių nu-**si**-daž-ym-as] raudon-a spalv-a per kelias minutes]
fabric-GEN PRV-RFL-paint-NMLZ-NOM.M.SG red-INS color-INS within couple minutes
'fabric's dying by itself with red color within a couple of minutes' CEN

- SUMMARY: CENS contain a vP layer and verbal projections that originate inside vP.

⁶Polish complex nominalizations also exhibit similar aspectual properties in that they may be marked for perfective or imperfective aspect. See Rozwadowska 2000.

2.2.4 Habitual Past

- Lithuanian has a habitual iterative aspect marked with the suffix *-dav* as in (12a) (for overview see Sakurai 2015 and references therein, also see Pakerys 2017). This suffix is not permitted in CEN.
- This suffix has a fixed meaning and can be attached to auxiliaries (Šereikaitė in prep) suggesting that it originates outside *vP*.

- (12) a. Aš rašy-**dav**-au laišk-us kiekvieną dieną.
I.NOM write-**HAB**-PST.1SG letters-ACC every day
'I used to write letters every day.' Active
- b. [Mano laiškų raš-*(**dav**)-ym-as kiekvieną dieną] vis-iems patik-o
me-GEN letter-GEN write-**HAB**-NMLZ-NOM.M.SG every day everyone-DAT like-PST.3
'Everyone liked my writing of letters every day.' CEN

2.2.5 Outer Aspect

- Super lexical prefixes originating outside a *vP* (Babko-Malaya 1999; Svenonius 2004, 2008) can also be found in Lithuanian (Arkadiev 2011; Korostenskienė 2017; Šereikaitė 2016, 2018).
- One of these prefixes is the prefix *te-*, which can have permissive or restrictive meaning 'only' (for discussion of restrictive use see Arkadiev 2010). The prefix is not permitted in CENS.

- (13) a. Aš vos tik porą kartų **te**-daž-iau šį automobil-į.
I.NOM only just several times **TE**-paint-PST.1SG this car-ACC
'I only painted this car a couple of times.' Active
- b. *[Mano automobilio **te**-daž-ym-as vos tik porą kartų] buv-o
me.GEN car-GEN **TE**-daž-NMLZ-NOM.M.SG only just several times be-PRS.3
sėkming-as
successful-NOM.M.SG
'My painting of the car only a couple of times was successful.' CEN

- SUMMARY: The ungrammaticality of these affixes indicates that CENS lack projections originating outside *vP*.

2.3 Voice

- CENS have an agentive interpretation, and thus have been argued to contain a Voice head which introduces an external θ -role (Alexiadou 2009, Bruening 2013). This head is passive-like in that it does not assign accusative case to the theme.
- Lithuanian CENS also have an agentive interpretation. However, these construction contain a non-verbal Voice head, which I call n_{voice} head.

2.3.1 Agentive Interpretation

- The genitive DP must have an agent interpretation in CENS.

Context: In Vilnius, there was a reading competition. Each participant had to read Shakespeare's sonnets. Each reading is attended by a judge who evaluates the performance of the participants.

- (14) Kunkurso metu [pirm-o teisėj-o Šekspyr-o sonet-ų skait-ym-as]
competition time first-GEN judge-GEN Shakespeare-GEN sonnets-GEN reading-NMLZ-NOM.M.SG
buv-o daug raiškenis negu antr-o teisėj-o.
be-PST.3 much expressive than second-GEN judge-GEN
'During the competition, first judge's reading of Shakespeare's sonnets was more expressive than second judge's reading.'
(i) ✓ Judge read the sonnets himself. (ii) # Judge attended the reading, but did not read the sonnets.

- CENS pattern like passives in that they allow instruments which denote tools that an agent used to perform an action.

(15) Jon-o nam-ų su-naik-in-im-as su buldozer-iu
Jonas-GEN house-GEN PRF-destroy-CAUS-NMLZ-NOM.M.SG with bulldozer-INS
'Jonas' destruction of houses with a bulldozer' CEN

(16) Nam-ai buv-o sunaikin-t-i su buldozer-iu.
houses-NOM.M.PL be-PST.3 destroy-PST.PASS.PTCP [-AGR] with bulldozer-INS
'The houses were destroyed with a bulldozer.' Passive

- However, while passives allow agent-oriented adverbs which attach at a level of a verbal Voice head, CENS do not. Instead, CENS occur with agent-oriented adjectives.
- Unavailability of agent-oriented adverbs suggests that CENS contain a non-verbal Voice head. I propose that this head is a type of nominal Voice head, thus n_{voice} , which encodes agentive semantics.

(17) a. [Jon-o **sąmoning-as** įraš-ų su-naik-in-im-as] vis-us
Jonas-GEN conscious-NOM.M.SG records-NOM.M.PL PRV-destroy-CAUS-NOM.M.SG everyone-ACC
nustebin-o
surprise-PST.3
'Jonas' conscious destruction of records surprised everyone.' CEN

b. *[Jon-o įraš-ų su-naik-in-im-as **sąmoning-ai**] vis-us
Jonas-GEN records-GEN PRV-destroy-CAUS-NOM.M.SG consciously-ADV everyone-ACC
nustebin-o
surprise-PST.3
'Jonas' destruction of the records consciously surprised everyone.' CEN

(18) Šie įraš-ai buv-o sunaikint-i **sąmoning-ai**.
These records-NOM.M.PL be-PST.3 destroy-PAST.PASS.PTCP-NOM.M.PL consciously-ADV
'These records were destroyed consciously.' Passive

- Nevertheless, the manner adverbs like *quickly* which attach at the level of νP and refer to the action itself are possible.⁷

(19) [Jon-o neatsakingas automobil-io vairam-im-as **greit-ai** kalnuotose
Jonas-GEN irresponsible car-GEN drive-NOMMLZ-NOM.M.SG quickly-ADV mountainous
vietovės-e] niek-am ne-patiko
places-LOC no.one.DAT like-PRS.3
'No one liked Jonas's irresponsible driving quickly in mountainous areas.'

- The Voice morphology is typically marked with the *-m/-t* suffix which appears in passive participles. This suffix is ungrammatical in CENS.⁸

⁷Pakerys (2006) notes that in certain cases it is possible to find adverbs in nominalizations. However, it seems like in most of Pakerys' examples the adverb functions more like an argument of a deverbal noun.

(i) a. On-a atrod-o juoking-ai. b. On-os atrod-ym-as juoking-ai
Ona-NOM look-PRS.3 funny-ADV Ona-GEN look-NMLZ-NOM.M.SG funny-ADV
'Ona looks funny.' 'Ona's looking funny' (Pakerys 2006:145)

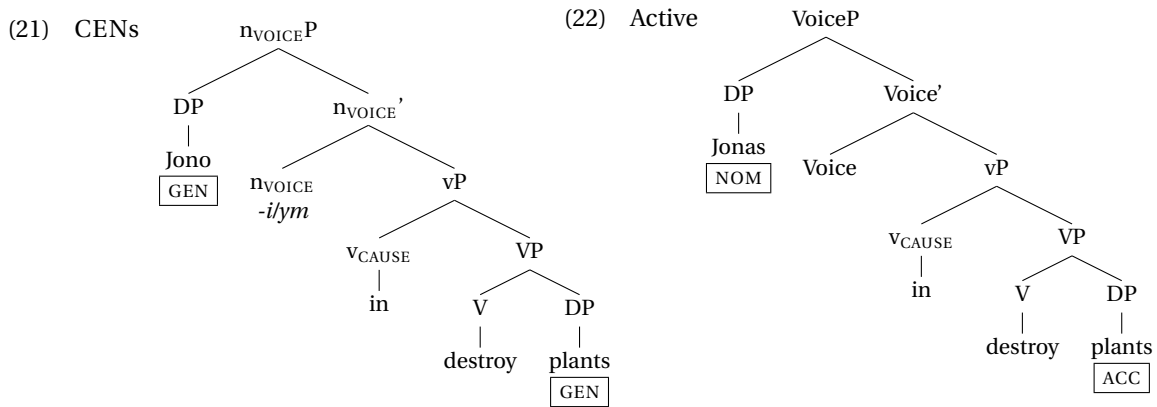
⁸A few instances with a nominalized auxiliary and a passive participle are attested e.g., see (i). Notice that the passive participle bears instrumental case, which is the type of case typically realized on nominal or adjectival predicates in copular constructions rather than canonical passives. These constructions also seem to have a stative-like interpretation. Furthermore, it is ungrammatical to form these types of nominalizations with non-stative verbs like *destroy* as in (ii).

- (20) a. Jon-as pa-tikrin-o pažym-ius.
Jonas-NOM PRV-check-PST.3 grades-ACC
'Jonas checked the grades.' Active
- b. Pažym-iai buv-o patiktin-t-i Jon-o.
grades-NOM.M.PL be-PST.3 check-PST.PASS.PTCP-NOM.M.PL Jonas-GEN
'The grades were checked by Jonas.' Passive
- c. *[Jon-o pažym-ių pa-tikrin-t-im-as] vis-us nustebin-o
Jonas-GEN grades-GEN check-PST.PASS.PTCP-NMLZ-NOM.M.SG everyone-ACC surprise-PST.3
'Jonas' checking of grades surprised everyone.' CENS

- Ambrazas (1978) notes that historically the passive morphemes *-t/-m* used to be nominalizing, deverbal suffixes.

2.4 Summary

- CENS contain a verbal layer and projections that originate inside ν P, but lack projections that originate outside ν P.
- CENS inherit their argument structure from the verb as evidenced by the obligatoriness of the theme. To capture that, I follow Alexiadou (2001) suggesting that n_{voice} head, hosting the suffix *-i/ym*, attaches on the top of a ν P.
- This head is Voice-like in that it introduces an agentive semantics (Kratzer 1996), it assigns external argument theta-role to the genitive agent in CENS in Spec n_{voice} P, just like a regular active Voice head assigns the theta role to the nominative agent in SpecVoiceP.⁹



3 Two types of Genitives

- Previous work suggested that 'double genitive' pattern is a 'double possessive' pattern meaning that both genitives may function as possessives (e.g., Koptjevskaja-Tamm 2003, also Kolliakou 1995 for Greek result nominals).

- (i) Tikėjim-as yra [buv-im-as išrink-t-u].
faith.NOM be.PRS.3 be-NMLZ-NOM.M.SG choose-PST.PASS.PTCP-INS.M.SG
Lit. 'Faith means being chosen.' (Internet example)
- (ii) *[Buv-im-as sunaikin-t-u lig-os] dažnai prišauk-ia nevilt-į.
be-nmlz-nom.m.sg destroy-PST.PASS.PTCP-INS.M.SG illness-GEN often invite-PRS.3 despair-ACC
'Being destroyed by an illness often causes despair.'

⁹See Baker and Vinokurova (2009) for a similar approach. In their analysis of agent nominals, the *n* head is proposed to bear agentive semantics like that of a Voice head in Kratzer (1996).

- Based on evidence from Lithuanian, I argue that the two genitives found in CENS as in (23) are structurally different, and thus should have different loci for case assignment.

- Higher genitive (GEN.H) is a structural case assigned to agents and possessors.
- Lower genitive (GEN.L) is a structural case assigned to a grammatical object.

(23) Jon-o augal-ų su-naik-in-im-as
 Jono-GEN.H plants-GEN.L PRV-destroy-CAUS-NMLZ-NOM.M.SG
 ‘Jonas’ destruction of plants’

3.1 Two Morphological Forms

- The two genitives may be syncretic, but there is a morphological way to distinguish between the two.
- Two distinct genitive forms for 1st singular and 2nd singular person personal pronouns as well as reflexive pronoun.
 - **tavo** - you.GEN.H (high genitive) vs. **tavęs** - you.GEN.L (low genitive), **mano** - me.GEN.H vs. **manęs** - me.GEN.L, **savo** - self.GEN.H vs. **savęs** - self.GEN.L

Type of DP	Form
Possessor Subject By-phrase	<i>tavo</i> - you.GEN.H
Object Complement of P Genitive of negation	<i>tavęs</i> - you.GEN.L

Table 2: Distribution of two types of genitives

- Distribution of GEN.H

(24) **tav-o**/*tav-ęs nam-as
 you-GEN.H/you-GEN.L house-NOM.M.SG
 ‘your house’ GEN.H Possessor

(25) **Tav-o**/*tav-ęs nuramin-t-a vaik-as.
 you-GEN.H/you-GEN.L calm-PST.PASS.PTCP-[-AGR] child-NOM
 ‘You must have calmed the child down.’ GEN.H Subject of Evidential

(26) Laišk-as buvo **tav-o**/*tav-ęs parašy-t-as.
 letter-NOM.M.SG be.PST.3 you-GEN.H/you-GEN.L write-PST.PASS.PTCP-NOM.M.SG
 ‘The letter was written by you.’ GEN.H Passive by-phrase

- Distribution of GEN.L

(27) Jis lauk-ia **tav-ęs**/*tav-o.
 he.NOM wait-PRS.3 you-GEN.L/you-GEN.H
 ‘He is waiting for you.’ GEN.L Object

(28) Jon-as rėk-ė ant **tav-ęs**/*tav-o.
 Jonas-NOM shout-PST.3 on you-GEN.L/you-GEN.H
 ‘Jonas was shouting at you.’ GEN.L Complement of P

- (29) a. Jon-as myl-i tav-e.
Jonas-NOM love-PRS.3 you-ACC
'Jonas loves you.'
- b. Jon-as ne-myl-i **tav-ęs**/*tav-o
Jonas-NOM NEG-love-PRS.3 you-[GEN.L]/you-GEN.H
'Jonas does not love you.'

GEN.L *Genitive of Negation*

3.2 Two Genitives in CENS

- When the theme and the agent are present, *tavo*, thus GEN.H form, is necessarily interpreted as an agent and *manęs*, thus GEN.L, is interpreted as a theme (for discussion and additional examples of this pattern see Pakerys 2006).

Context: we are playing a computer game where your goal is to destroy your enemy. That enemy happened to be me. During the game, you destroyed me in a couple of minutes.

- (30) [Tav-o toks neįtikėtinai man-ęs/*man-o su-naik-in-im-as per
your-[GEN.H] such incredible me-[GEN.L]/me-GEN.H PRV-destroy-CAUS-NMLZ-NOM.M.SG within
kelias minutes] vis-us šokirav-o.
few minutes everyone-ACC shock-PST.3
'Your such incredible destruction of me within a couple of minutes shocked everyone.'

✓ GEN.H-GEN.L

- Two GEN.H, (31), or two GEN.L forms, (32), cannot co-occur together.

- (31) *[Tav-o toks neįtikėtinai man-o su-naik-in-im-as per kelias
your-[GEN.H] such incredible me-[GEN.H] PRV-destroy-CAUS-NMLZ-NOM.M.SG within few
minutes] vis-us šokirav-o.
minutes everyone-ACC shock-PST.3
'Your such incredible destruction of me within a couple of minutes shocked everyone.'

*GEN.H-GEN.H

- (32) *[Tav-ęs toks neįtikėtinai man-ęs su-naik-in-im-as per kelias
your-[GEN.L] such incredible me-[GEN.L] PRV-destroy-CAUS-NMLZ-NOM.M.SG within few
minutes] vis-us šokirav-o.
minutes everyone-ACC shock-PST.3
'Your such incredible destruction of me within a couple of minutes shocked everyone.'

*GEN.L-GEN.L

- Furthermore, GEN.L cannot precede GEN.H as demonstrated below.

- (33) *[Tav-ęs toks neįtikėtinai man-o su-naik-in-im-as per kelias
your-[GEN.L] such incredible me-[GEN.H] PRV-destroy-CAUS-NMLZ-NOM.M.SG within few
minutes] vis-us šokirav-o.
minutes everyone-ACC shock-PST.3
'Your such incredible destruction of me within a couple of minutes shocked everyone.'

*GEN.L-GEN.H

- As expected in nominalizations with unergatives, the agent is realized as GEN.H rather than GEN.L.

- (34) [Tav-o/*tav-ęs dažnas plaukioj-im-as baseine po dvi valandas
your-[GEN.H]/you-GEN.L frequent swimming-NMLZ-NOM.M.SG swimming.pool DISTR two hours
kiekvieną dieną] vis-iems patik-o.
every day everyone-DAT like-PST.3
'Everyone liked your frequent swimming in the swimming pool for two hours every day.'

✓ GEN.H
*GEN.L

- Unaccusative predicates also allow GEN.H form and GEN.L is ungrammatical.¹⁰

(35) [Toks linksmas man-o/*man-ęs nu-krit-im-as nuo kėdės] vis-us labai
 such funny me-GEN.H/me-GEN.L PRV-fall-NMLZ-NOM.M.SG from chair everyone-ACC very
 prajuokin-o.
 make.laugh-PST.3

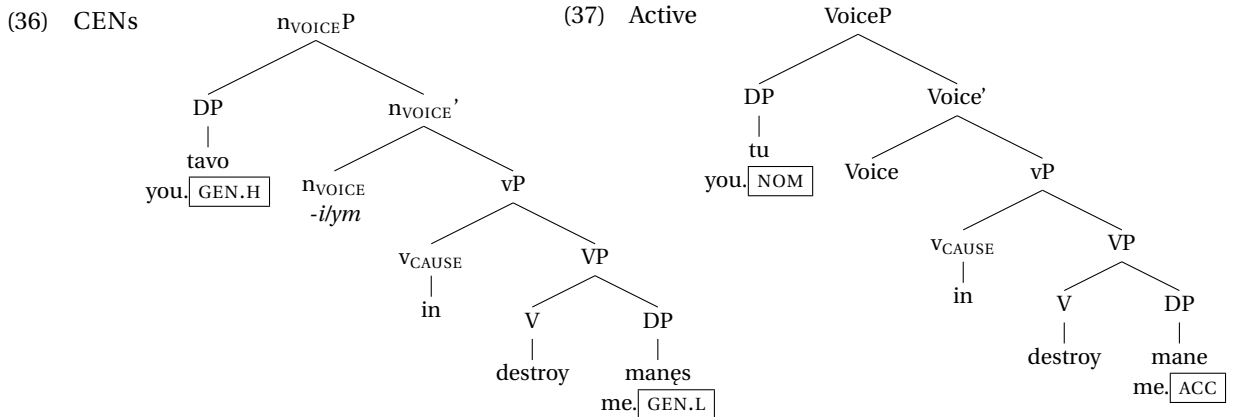
Lit. 'My such funny falling from the chair made everyone laugh.'

✓ GEN.H
 *GEN.L

- SUMMARY: GEN.H is assigned to the agent/possessor of transitives and unergatives, and the theme argument of unaccusatives (just like nominative!)
- GEN.L is assigned to the theme argument of transitive CENS (just like accusative!)
- the presence of two types of genitives suggests that there should be two distinct positions where these genitives are assigned.

Type of DP	Form
Possessor/Agent of transitives	tavo - you.GEN.H
Possessor/Agent of unergatives	
Theme of unaccusatives	
Theme of transitives	tavęs - you.GEN.L

Table 3: Distribution of two types of genitives in CENS



4 Structural vs. Non-structural case

- I provide evidence that the genitive assigned to the theme, thus GEN.L, is not only a structural case (Alexiadou 2001; Brattico and Leinonen 2009, a.o.), but one which can only be assigned under A-movement.

¹⁰There are exceptions to this pattern e.g., copular verbs like 'be' allow both forms as discussed by Pakerys 2006. Example provided in (i). However, the syntax of these predicates seems to be different from the rest of unaccusative verbs. The theme argument of these predicates may also undergo genitive of negation whereas the theme predicate of canonical unaccusative predicates e.g., like 'die' or 'fall, does not exhibit this behavior as observed in Sigurdsson and Ščerekaitė (in prep). Therefore, these predicates require a different kind of analysis than regular unaccusative verbs.

(i) Aš tave myliu ir [tav-ęs/tav-o] buv-im-as šalia kelias dienas reikšt-ų man visk-ą.
 I.NOM you.ACC love-PRS. I.SG and your-GEN.H/GEN.L be-NMLZ-NOM.M.SG near few days mean-SBJV me.DAT everything-ACC
 'I love you and your near presence for a couple of days would mean everything to me.' (Adapted from Internet)

4.1 ACC-GEN alternation

- The theme with structural accusative becomes GEN.L and occurs prenominally.

Context: we are playing a computer game where Jonas' goal is to destroy his enemy. That enemy happened to be me.

- (38) a. Jon-as man-e visišk-ai su-naik-in-o per kelis mėnesius.
Jonas-NOM me-ACC completely-ADV PRV-destroy-CAUS-PST.3 within couple months
'Jonas completely destroyed me within a couple of months.' Active
- b. Jon-o visišk-as man-ęs/*man-e **su-naik-in-im-as** per
Jono-GEN complete-NOM.M.SG me-GEN.L/me-ACC PRV-destroy-CAUS-NMLZ-NOM.M.SG within
kelis mėnesius
couple months
'Jonas' complete destruction of me within a couple of months' CENS
- c. *Jon-o visišk-as **su-naik-in-im-as** man-ęs/man-e per
Jono-GEN complete-NOM.M.SG PRV-destroy-CAUS-NMLZ-NOM.M.SG me-GEN.L/me-ACC within
kelis mėnesius
couple months
'Jonas' destruction of me within a couple of months' CENS

- The theme with inherent case cannot receive GEN.L. It retains its case and occurs post-nominally as illustrated with the verb *abejoti* 'to doubt', which takes an instrumental DP complement.¹¹

- (39) a. Jon-as jau kelis mėnesius abejoj-o manim-i/*mane.
Jonas-NOM already couple months doubt-PST.3 me-INS/me-ACC
'Jonas was already doubting me for a couple of months.'
- b. [Jon-o **abejoj-im-as** manim-i/*manę-s pastaruosius kelis mėnesius]
Jonas-GEN doubt-NMLZ-NOM.M.SG me-INS/me-GEN.L lately couple months
vis-us glumin-o
everyone-ACC confuse-PST.3
Lit. 'Jonas' doubt of me for the past couple of months confused everyone.'
- c. *[Jon-o man-imi/man-ęs **abejoj-im-as** pastaruosius kelis mėnesius]
Jonas-GEN me-INS/me-GEN.L doubt-NMLZ-NOM.M.SG lately couple months
vis-us glumin-o
everyone-ACC confuse-PST.3
'Jonas' doubt of me for the past couple of months confused everyone.'

4.2 Absence of P

- GEN.L is not assigned by a silent P since. Unlike the theme, PPs follow the nominal as illustrated here with the preposition *ant* 'on', which takes a genitive complement.

- (40) a. Jon-as šauk-ė ant man-ęs.
Jonas-NOM shout-PST.3 on me-GEN.L
'Jonas shouted at me.'

¹¹For ditransitives e.g., like *siūsti* 'to send', the same pattern can be observed. The indirect object marked with the dative inherent case stays post-nominally whereas the agent and the theme precede the nominal.

(i) Jonas siuntė man laiškus.
Jonas.NOM send.PST.3 me.DAT letters.ACC
'Jonas has sent me letters.'

(ii) Jono laišku siunt-im-as man
Jonas.GEN letters.GEN send-NMLZ-NOM.M.SG me.DAT
'Jonas' sending of letters to me'

- b. Jon-o **šauk-im-as** ant man-ęs
Jonas-GEN shout-NMLZ-NOM.M.SG on me-GEN.L
'Jonas' shouting at me'
- c. *Jon-o ant man-ęs **šauk-im-as**
Jonas-GEN on me-GEN.L shout-NMLZ-NOM.M.SG
'Jonas' shouting at me'

4.3 DAT-GEN alternation

- Verbs like *pritarti* 'approve' take a dative object, (41), which optionally advances to nominative in the passive behaving like a structural case (Anderson 2015; Sigurðsson, Šereikaitė & Pitteroff 2018; Šereikaitė in prep).

- (41) a. Parlament-as pritar-ė projekt-ui/*projekt-ą.
Parliament-NOM approve-PST.3 project-DAT/project-ACC
'The parliament approved the project.' *Active*
- b. Projekt-ui buv-o pritar-t-a parlament-o.
Project-DAT be-PRS.3 approve-PST.PASS.PTCP-[-AGR] parliament-GEN
'The project was approved by the parliament.' *Passive*
- c. Projekt-as buv-o pritar-t-as pralament-o.
Project-NOM be-PRS.3 approve-PST.PASS.PTCP-NOM.M.SG parliament-GEN
'The project was approved by the parliament.' *Passive*

- In CENS, this DP dative is retained when in situ, (42a). Alternatively, it can move to a pre-nominal position, (42b) and then it is assigned genitive case.¹²

- (42) a. [Parlament-o greitas **pritar-im-as** projekt-ui/*projekt-o] vis-us
parliament-GEN quick approve-NMLZ-NOM.M.SG project-DAT/project-GEN everyone-ACC
nustebin-o
surprise-PST.3
'Parliament's quick approval of the project surprised everyone.'
- b. [Parlament-o greitas projekt-o/*projekt-ui **pritarimas**] vis-us
parliament-GEN quick project-GEN/project-DAT approve-NMLZ-NOM.M.SG everyone-ACC
nustebin-o.
surprise-PST.3
'Parliament's quick approval of the project surprised everyone.'

- Thus, the assignment of GEN.L is restricted to a pre-nominal position suggesting that this case is assigned under movement from a post-nominal position to a pre-nominal position (see Brattico and Leinonen 2009 for similar analysis in Finnish).

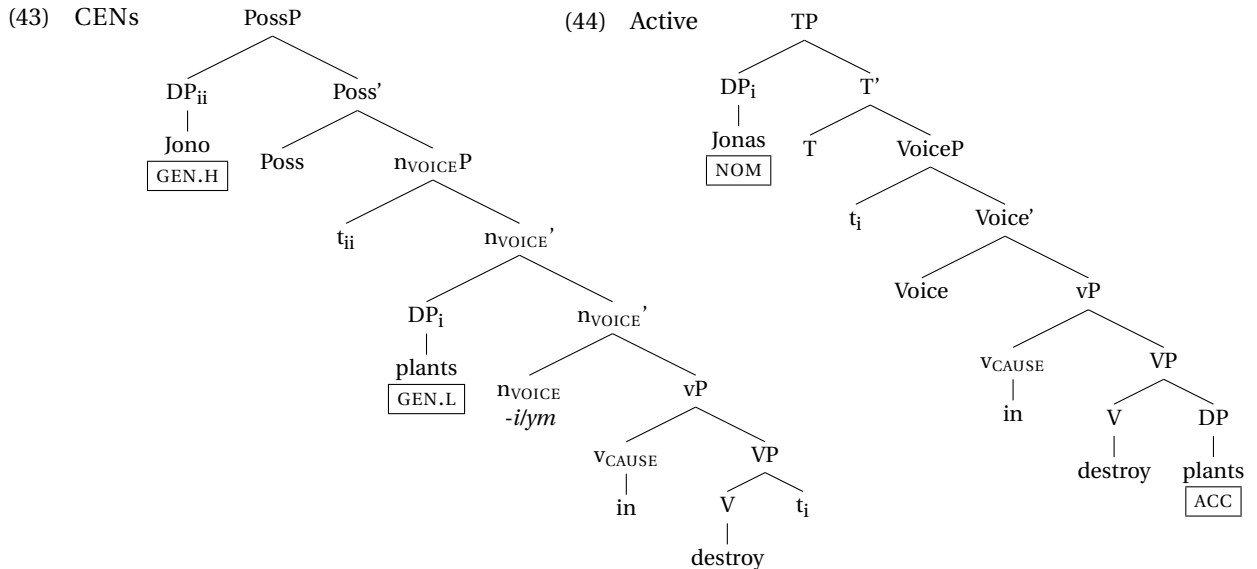
- Cf. nominative case only assigned under A-movement by T in Faroese (see e.g., Sigurðsson 2017).

¹²This pattern is reminiscent of what we find in Icelandic nominalizations. A dative object of verbs like 'rescue' also appears in genitive in this environment (see Maling 2001; Wood 2012, 2018). On the other hand, unlike in Lithuanian, the retention of the dative is ungrammatical. Data from Wood (2012:133-134).

- | | | |
|--|--|---|
| (i) þau björguðu sjómanninum.
they.NOM rescued sailor.the. DAT
'They rescued the sailor.' | (ii) björg-un sjómannsins
rescue-NMLZ sailor.the. GEN
'the rescue of the sailor.' | (iii) *björg-un sjómanninum
rescue-NMLZ sailor.the. DAT
Intended 'the rescue of the sailor.' |
|--|--|---|

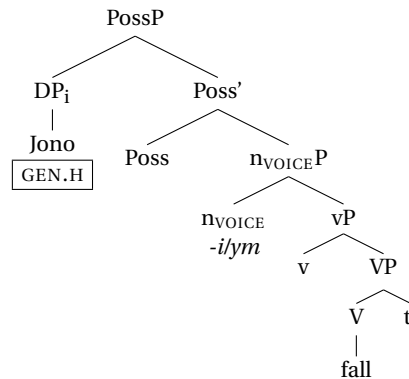
4.4 Case of the Agent and Theme

- The genitive case assigned to the theme, thus (GEN.L), does not bear properties associated with inherent case:
 - It behaves like structural case in that it is assigned to DPs which would typically bear structural accusative case in an active.
 - Just like an accusative grammatical object, it can be embedded under the preposition *po*.
- The GEN.L of theme behaves like a structural accusative case, and thus I propose that GEN.L is assigned by the n_{voice} head, just like an active Voice head assigns accusative case to a grammatical object.¹³
- DPs with GEN.L case are restricted to the prenominal position whereas DPs with inherent case occur post-nominally suggesting that GEN.L is assigned under movement.
- I argue that GEN.L, unlike the accusative case in an active, is assigned under A-movement to SpecnP position.
- This type of analysis is possible if we assume that ‘tucking in’ derivations (e.g., see McGinnis 1998; Richards 1999)
- Lastly, I suggest that the agent is assigned the theta role by n_{VOICE} and it raises to SpecPossP to receive GEN.H.



- For unaccusatives, I assume that the n_{VOICE} cannot assign GEN.L. The theme instead raises to SpecPossP to receive GEN.H.

(45) CENs with unaccusatives



¹³I assume that n_{voice} head is similar to a v-Voice head where the functions of Voice and v are unified in a single projection, in other words the two heads are bundled together (see e.g., Pylkkänen 2008; Harley 2017).

5 Conclusion

- This study provides new insights on the way case and Voice work in CENS.
- CENS have a non-verbal Voice head which assigns an external-theta role to the agent.
- ‘Double genitive’ pattern in CENS is not a ‘double possessor’ pattern.
- CENS contain two distinct genitive DPs:
 - GEN.H assigned by the PossP and realized on the agent.
 - GEN.L assigned to the theme argument by n_{VOICE} . This case is assigned under A-movement.

References

- Alexiadou, Artemis. 2001. Functional structure in nominals: nominalization and ergativity, volume 42. John Benjamins Publishing.
- Alexiadou, Artemis. 2009. On the role of syntactic locality in morphological processes: the case of (greek) derived nominals. Quantification, definiteness and nominalization 253–280.
- Alexiadou, Artemis. 2010. Nominalizations: A probe into the architecture of grammar part i: The nominalization puzzle. Language and Linguistics Compass 4:496–511.
- Alexiadou, Artemis, and Jane Grimshaw. 2008. Verbs, nouns and affixation. Working papers of SFB 732 .
- Ambrazas, Vytautas. 1978. Istoričeskij sintaksis pričastij litovskogo jazyka. Doctoral Dissertation, Institut litovskogo jazyka i literatury, Akademija nauk Litovskoj, Vilnius.
- Ambrazas, Vytautas, Emma Geniušienė, Aleksas Girdenis, Nijolė Sližienė, Dalija Tekorienė, Adelė Valeckienė, and Elena Valiulytė. 1997. Lithuanian Grammar. Vilnius: Baltos lankos.
- Anderson, Cori. 2015. Passivization and argument structure in Lithuanian. In Voice and argument structure in Baltic, ed. Axel Holvoet and Nicole Nau, 289–322. Amsterdam: John Benjamins Publishing.
- Arkadijev, Peter. 2010. Notes on the Lithuanian restrictive. Ms. 9–49.
- Arkadijev, Peter. 2011. On the aspectual uses of the prefix be- in Lithuanian. Baltic Linguistics II:37–78.
- Babko-Malaya, Olga. 1999. Zero Morphology: A study of Aspect, Argument Structure and Case. Doctoral Dissertation, Rutgers University.
- Baker, Mark C, and Nadya Vinokurova. 2009. On agent nominalizations and why they are not like event nominalizations. Language 85:517–556.
- Borer, Hagit. 2001. The forming, the formation and the form of nominals. Handout USC .
- Borer, Hagit. 2013. Structuring sense: Volume iii: Taking form, volume 3. Oxford: Oxford University Press.
- Brattico, Pauli, and Alina Leinonen. 2009. Case distribution and nominalization: Evidence from Finnish. Syntax 12:1–31.
- Bruening, Benjamin. 2013. By phrases in passives and nominals. Syntax 16:1–41.
- Geniušienė, Emma. 1987. The typology of reflexives, volume 2. Berlin: Walter de Gruyter.
- Grimshaw, Jane. 1990. Argument structure. Cambridge: MIT Press.
- Harley, Heidi. 2017. The “bundling” hypothesis and the disparate functions of little v. In The verbal domain, ed. Ángel J. Gallego Roberta D’Alessandro, Irene Franco, 3–28.
- Istratkova, Vyara. 2004. On multiple prefixation in Bulgarian. Nordlyd 32.
- Joniken, Kristiina. 1991. On the two genitives in finnish. SEuroTyp Working Papers (Program in Language Typology, European Science Foundation) 4.
- Kishimoto, Hideki. 2006. Japanese syntactic nominalization and VP-internal syntax. Lingua 116:771–810.
- Kolliakou, Dimitra. 1995. Definites and possessives in Modern Greek: an HPSG syntax for noun phrases. Doctoral Dissertation, University of Edinburgh, Edinburgh.
- Koptjevskaja-Tamm, Maria. 2003. Action nominal constructions in the languages of Europe. In Noun Phrase Structure in the Languages of Europe, ed. Frans Plank, 723–759. Berlin: Mouton de Gruyter.

- Korostenskienė, Julija. 2017. On binding, lexical and superlexical prefixes, and si in the baltic verb. Canadian Journal of Linguistics/Revue canadienne de linguistique 62:449–501.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Phrase structure and the lexicon, ed. Johan Rooryck and Laurie Zaring, 109–137. Dordrecht: Kluwer.
- Maling, Joan. 2001. Dative: The heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles. Lingua 111:419–464.
- McGinnis, Martha. 1998. Locality in a-movement. Doctoral Dissertation, Massachusetts Institute of Technology.
- Pakerys, Jurgis. 2006. Veiksmo pavadinimo konstrukcija lietuvių kalbos gramatikoje. In Daiktavardinio junginio tyrimai (lietuvių kalbos gramatikos darbai), ed. Axel Holvoet and Rolandas Mikulskas, 121–149. Vilnius: Lietuvių kalbos instituto leidykla.
- Pakerys, Jurgis. 2017. On the development of past habitual from iterative in Lithuanian. Baltistica 2:295–323.
- Pylkkänen, Liina. 2008. Introducing arguments, volume 49. Cambridge, MA: MIT press.
- Richards, Norvin. 1999. Featural cyclicity and the ordering of multiple specifiers. CURRENT STUDIES IN LINGUISTICS SERIES 32:127–158.
- Roeper, Thomas, and Angeliek Van Hout. 1999. The impact of nominalization on passive,-able and middle: Burzio's generalization and feature-movement in the lexicon. MIT Working papers in Linguistics 35:185–211.
- Rozwadowska, Bożena. 2000. Aspectual Properties of Polish Nominalizations. Journal of Slavic Linguistics 239–261.
- Sakurai, Eiko. 2015. Past habitual tense in Lithuanian. In Contemporary Approaches to Baltic Linguistics, ed. Peter Arkadiev, Axel Holvoet, and Wiemer Björn, 383–437. Berlin: De Gruyter Mouton.
- Sigurðsson, Einar Freyr. 2017. Deriving case, agreement and Voice phenomena in syntax. Doctoral Dissertation, University of Pennsylvania, Philadelphia.
- Sigurðsson, Einar Freyr, Milena Šereikaitė, and Marcel Pitteroff. 2018. The structural nature of non-structural case: On passivization and case in Lithuanian. Proceedings of LSA 3:1–15.
- Sigurðsson, Einar Freyr, and Milena Šereikaitė. in prep. Lithuanian Genitive of Negation. Ms.
- Svenonius, Peter. 2004. Slavic prefixes inside and outside VP. Nordlyd Special issue on Slavic prefixes 32:205–253.
- Svenonius, Peter. 2008. Russian prefixes are phrasal. In Formal description of slavic languages, ed. G. Zybatow, L. Szucsich, U. Junghanns, and R. Meyer, 526–537. Frankfurt am Main: Peter Lang.
- Vladarskienė, Rasuolė. 2010. Linksnų vartojimas veiksmažodžių abstraktų junginiuose [the use of cases in abstract phrases of verbal nouns]. Kalbos Kultūra 83:173–184.
- Šereikaitė, Milena. 2016. Towards a typology of Baltic lexical prefixes and Germanic particles. Germanic Linguistics Annual Conference 22.
- Šereikaitė, Milena. 2017. The reanalysis of Lithuanian Reflexive -si-: a DM approach. Proceedings of the 34th West Coast Conference on Formal Linguistics 34:447–453.
- Šereikaitė, Milena. 2018. Lexical vs. nominal prefixes and their meaning domains. University of Pennsylvania Working Papers in Linguistics 24:189–198.
- Šereikaitė, Milena. in prep. Voice and case phenomena in Lithuanian morphosyntax. Doctoral Dissertation, University of Pennsylvania, Philadelphia, PA.
- Wood, Jim. 2012. Icelandic morphosyntax and argument structure. Doctoral Dissertation, New York University, New York.
- Wood, Jim. 2018. Putting our heads together: Inheritance and deverbal event nouns in Icelandic. Talk given at UPenn.
- Zaika, Natalia. 2016. Lithuanian nominalization and the case marking of their arguments. In Argument Realization in Baltic, ed. Axel Holvoet and Nicole Nau, 523–551. John Benjamins Publication.