

Case and Voice Properties of Complex Event Nominalizations: a Voice-bundling approach

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Abstract This study examines Voice and case properties of complex event nominalizations (CENs) in Lithuanian (Baltic). CENs in some languages exhibit an ergative case pattern and a passive-like VoiceP lacking a projected external argument (e.g., Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). Evidence from Lithuanian shows that ergativity and passive Voice are not the necessary components of CENs. First, Lithuanian CENs do not exhibit an ergative case pattern: they have two distinct structural genitive cases, a possessive genitive and a non-possessive genitive, which are analogous to a nominative-accusative case pattern found in active transitive constructions. Second, Lithuanian CENs are not passives: they have a syntactically projected external argument and a theme grammatical object with structural object case, namely the non-possessive genitive. I capture the Lithuanian pattern by extending a Voice-bundling approach (Pyłkkänen 2002, 2008; Harley 2017) to the nominal domain: CENs contain $n_{\text{VOICEACT}}\text{P}$, which performs the functions of both, a nominalizing n and an active thematic Voice bundled together. The n_{VOICEACT} head i) nominalizes the verbal structure, and ii) introduces an external argument as well as assigns structural object case to the theme. Overall, this study demonstrates that CENs can have the same transitive structure found in verbal clauses.

Keywords Complex Event Nominalizations, Voice-bundling, Structural Case, Inherent Case, A-movement, Lithuanian

1 Introduction

This study presents evidence from Lithuanian (Baltic) demonstrating that complex event nominalizations (CENs) contain two syntactically distinct genitives that pattern like structural nominative and accusative in verbal clauses. CENs in some languages have been argued to be defective in that they exhibit an ergative case pattern and have a passive-like VoiceP (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014, for earlier studies see Williams 1987; Bok-Bennema 1991; Johns 1992). Lithuanian CENs show

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the opposite pattern: they do not display an ergative case alignment nor do they allow passivization. I argue that CENs have an active thematic Voice with a syntactically projected agent, and exhibit a transitive case pattern with two distinct genitives. These properties are accounted for by bundling an active Voice with a categorizing *n*.

In Lithuanian, the nominative agent in the active transitive in (1a) appears in genitive in the CEN in (1b). The theme with accusative in (1a) becomes genitive in (1b). Both DPs precede the deverbal noun marked with the nominal suffix *-i/-ym*.

- (1) a. Petr-as aug-in-o triuš-i-us.
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’
 b. Petr-o triuš-i-ų aug-in-im-as
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
 ‘Petras’ raising of rabbits’ (Adapted from Pakerys 2006, 129)

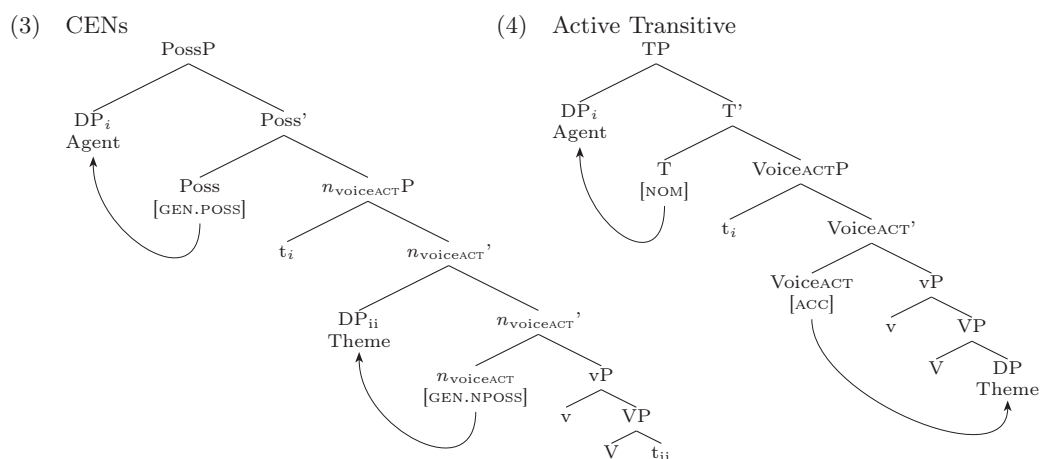
Nouns do not exhibit a morphological distinction between the two genitives. However, some pronouns have two morphologically distinct genitives: a possessive genitive *mano/tavo* ‘me.GEN.POSS/you.GEN.POSS’ and a non-possessive genitive *manęs/tavęs* ‘me.GEN.NPOSS/you.GEN.NPOSS’ (Ambrazas et al. 1997, 192).¹ In the CEN of (2a), the agent bears possessive genitive, whereas the theme appears in non-possessive genitive (Pakerys 2009).²

- (2) a. Aš tave palaiki-au daugybę metų.
 I.NOM you.ACC support-PST.1SG many years
 ‘I supported you for many years.’
 b. Man-o tav-ęs palaik-ym-as daugybę metų
 me-GEN.POSS you-GEN.NPOSS support-NMLZ-NOM.M.SG many years
 ‘My support of you for many years’ (Adapted from Pakerys 2009, 138)

Based on evidence from the pronouns in (2b), I demonstrate that a possessive genitive and a non-possessive genitive represent two syntactically distinct cases assigned by distinct heads as in (3). The possessive genitive case is assigned to the highest available argument in the structure just like structural nominative in the verbal clause in (4). The non-possessive genitive is assigned to the internal argument of CENs formed with transitive predicates, and thus corresponds to the structural accusative assigned to a grammatical object in verbal clauses. However, I show that while in verbal clause the structural accusative is assigned in situ, the non-possessive genitive in CENs is assigned under A-movement (see Cardinaletti 1998; Delsing 1998; Brattico and Leinonen 2009 for movement in the nominal domain).

¹I chose to gloss these two genitives according to the types of labels they were given by Ambrazas et al. 1997, 186. However, nothing should be concluded from these glosses. The possessive genitive has a wider range of functions than just a possessive function e.g., DPs marked with this case can function like subjects of evidentials (see section 4.1).

²The basic word order in Lithuanian is SVO, (1a). However, if an object is a pronoun, then it can precede the verb as in (2a), which I treat as an instance of object shift (see footnote 25). The movement of the pronominal object in verbal clauses is not motivated by case assignment.



These findings are important for a couple of reasons. First, they show that CENs can have a transitive case pattern with two genitive cases showing a NOM-ACC case alignment rather than an ergative one. Second, the two genitives in CENs cannot be treated as one and the same unmarked case, as assumed in Dependent Case Theory (Baker 2015; Alexiadou 2017; Norris 2018), or as one and the same syntactic case, as assumed in the typological studies e.g., Koptjevskaja-Tamm 2002, 2003. Third, a common view is that CENs include a passive-like VoiceP, which lacks a projected external argument (e.g., Alexiadou 2009, 2017, for a similar approach see Grimshaw 1990). I argue that Lithuanian CENs do not allow passivization. They exhibit a structure parallel to the one found in active verbal clauses, (cf. 3-4).

The lack of passivization and the presence of a transitive case pattern are captured by extending a Voice-bundling approach to CENs. In Voice-splitting languages, VoiceP and *v*P are separate projections, whereas in Voice-bundling languages there is a single *v*/Voice projection, which serves all functions that *v* and Voice would perform independently (e.g., Kratzer 1996; Pykkänen 2008; Harley 2013; Legate 2014). In Lithuanian verbal clauses, VoiceP and *v*P are separate projections in (4) (Author 2020). However, Lithuanian CENs display Voice-bundling. CENs like (3) have an $n_{\text{voiceACT}P}$ that performs the functions of a nominalizing *n* head and an active thematic Voice (see Punske 2010, 2012 for this approach). Just like *n*, n_{voiceACT} nominalizes the verbal structure. This head also behaves like an active thematic Voice: it introduces an external argument θ -role, has a projected agent in its specifier, and assigns structural object case i.e., non-possessive genitive, to the theme (see Ahdout 2021 for active Voice in Hebrew nominalizations). The assignment of this case is based on movement to $n_{\text{voiceACT}P}$.

Identifying this dichotomy enriches the typology of Voice by showing that bundling can be crosscategorical (see Panagiotidis 2015 for verbal and nominal features introduced by a single head) rather than must happen in the same domain as suggested by H. Á Sigurðsson 2009. I argue that the complex bundle of features of n_{voiceACT} comes from the pre-syntactic lexicon. The bundling in (3) cannot happen in syntax through e.g., head movement, or at PF through e.g., fusion (Halle and Marantz 1993).

Lastly, this study also contributes to an ongoing debate on how much verbal structure is present in CENs. Some studies argue that CENs are built on top of a *v*P (Borer 1997, 2012; Roeper and van Hout 1999; Alexiadou 2001; Fu et al. 2001), which I will call a phrasal layering approach following Wood 2023. However, more recent studies

offer a complex head analysis of CENs where no *vP* layer is present in the structure, instead *n* is directly merged with *v* (Marantz 2022; Wood 2023; also McIntyre 2014 for *-er* nominals). Lithuanian CENs support the phrasal layering analysis.

This paper is organized as follows. Section 2 provides an overview of Lithuanian CENs showing that they are phrasal: CENs have a *vP* and an active Voice, but lack verbal projections above Voice like higher aspect. Section 3 shows that the genitive case assigned to the theme argument of transitive predicates in CENs is a structural object case assigned under A-movement. Section 4 distinguishes between two structural genitives in CENs using pronominal forms and demonstrates that they pattern like nominative and accusative in verbal clauses. Section 5 provides arguments for a Voice-bundling analysis showing that the functions of *n* and an active thematic Voice are subsumed under one head, which correctly captures the lack of passivization in CENs. Section 6 concludes. The data presented in the paper were tested with eight native speakers of Lithuanian, some examples come from Google Searches.

2 CENs and main verbal clauses in Lithuanian

In this section, I compare Lithuanian CENs with main verbal clauses. I demonstrate that Lithuanian nominalizations pattern like canonical CENs and provide evidence for the phrasal layering approach. Lithuanian CENs contain a *vP* and some verbal layers that originate inside the *vP* domain including inner aspect and secondary imperfectivization, see Table 1. However, CENs are deficient as far as the projections positioned above *vP* go. Verbal clauses include a VoiceP, a higher Asp(ect)P as well as a Mod(al)P. CENs have a non-verbal active thematic Voice, referred to as n_{VOICEACT} , but lack projections above Voice like outer aspect and modality.

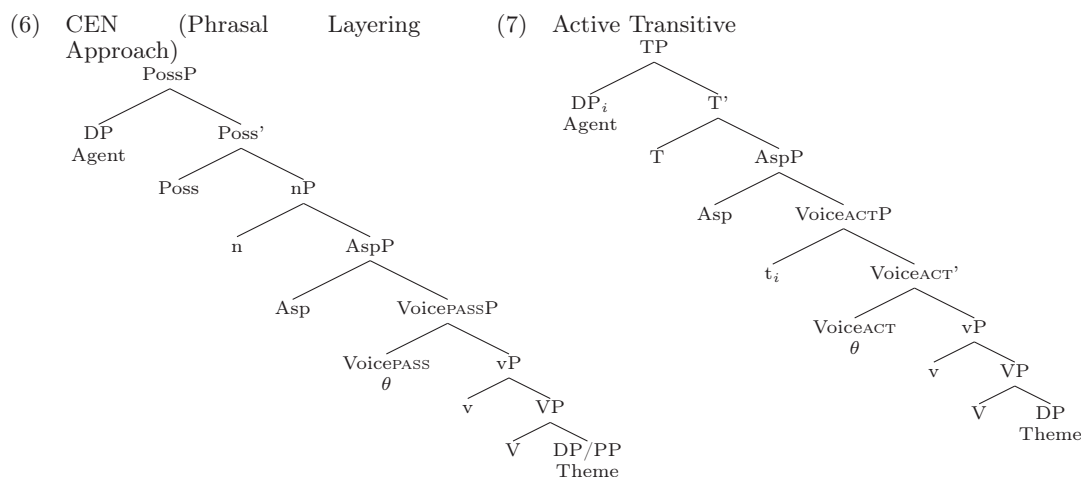
Position	Layers	CENs	Verbal Clauses
Inside <i>vP</i>	Causative <i>-in</i>	✓	✓
	Inner Aspect <i>iš-</i> , <i>nu-</i> , <i>su-</i> , <i>etc</i>	✓	✓
	Secondary Imperfectivization <i>-iné</i>	✓	✓
	Reflexive clitic <i>-si-</i>	✓	✓
Outside <i>vP</i>	Voice	✓	✓
	Habitual Aspect <i>dav-</i>	*	✓
	Continuative Aspect <i>be-</i>	*	✓
	Modal <i>te-</i>	*	✓

Table 1 Layers in CENs and verbal clauses

Three types of nominals can be distinguished in various languages: i) complex event nominals as in (5a) that license obligatory argument structure and denote complex events, ii) simple event nominals as in (5b) that denote an event but are not associated with event structure, and lack full argument structure, iii) result/referential nominals as in (99) that refer to the result of an event or a participant, and cannot take arguments (e.g., Grimshaw 1990; Borer 2003a, 45; Alexiadou and Grimshaw 2008, 2).

- (5) 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*

According to the phrasal layering approach, CENs include at least a full *vP*, just like verbal clauses, since they inherit the event and argument structure of their corresponding verbs, (6-7) (Borer 1997, 2012; Roeper and van Hout 1999; Alexiadou 2017; Fu et al. 2001; Embick 2010; Bruening 2013). CENs consist of *vP* with its arguments, VoiceP and AspP. Verbal transitive clauses and CENs have a thematic Voice, which assigns an external argument θ -role encoded by the θ feature in (6-7). In verbal clauses, this Voice is active: it has a projected agent in its specifier, which then raises to SpecTP. In contrast, Voice in CENs is passive-like: it lacks a projected external argument (Alexiadou 2001, 2017). The agent is introduced in the specifier of a Poss(essor)P (Baker 2015; Wood 2023, see Borer 1993; Alexiadou 2001 for agents in SpecDP in English). In languages like Greek or English, the agent can also be expressed in a *by*-phrase (not included in the tree), which would be attached to the passive VoiceP.



In Section 2.1, I show that Lithuanian nominalizations behave like canonical CENs. In Sections 2.2, 2.3, and 2.4 I flesh out the structure of these constructions. Lithuanian CENs support the phrasal layering approach but differ from the structure in (6) in that they have an active Voice with a projected agent and lack an outer aspect. In Section 2.5, I argue that Lithuanian CENs are incompatible with the complex head analysis according to which CENs have a *v* head, but lack *vP*.

2.1 Lithuanian nominalizations as CENs

Recall that in Lithuanian nominalizations, the agent and the theme occur prenominally and are realized in genitive as in (8) (for an overview see Christen 2001; Koptjevskaja-Tamm 2002, 2003; Pakerys 2006, 2009; Vladarskienė 2010; Zaika 2016).

- (8) Petr-o triušī-ų aug-in-im-as
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
 (i) ‘Petras’ raising of rabbits’, (ii) ‘Raising of Petras’ rabbits’

Two readings are available in (8): in (i) *Petras* is interpreted as the agent of the deverbal noun and in (ii) *Petras* is the possessor of the theme. Nominalizations with two genitives are not very frequent in Lithuanian (Pakerys 2006; Zaika 2016). This

may be due to the availability of the two distinct readings. My consultants accept both readings in the relevant context. In this paper, I focus on the complex event reading in (i). Attested examples of CENs with two genitives are provided in Appendix A.

Lithuanian nominalizations behave like CENs in that they bear some verbal properties. For instance, they allow telic modifiers like *in an hour* (10), which are associated with the aspectual properties of a verbal structure, (9).

- (9) Aš per-daži-au automobil-į per valandą laiko.
 I.NOM PFV-repaint-PST.1SG car(M)-ACC.SG within hour time
 ‘I repainted the car in an hour.’

- (10) man-o automobil-io per-daž-ym-as per valandą laiko
 me-GEN.POSS car(M)-GEN.SG PFV-paint-NMLZ-NOM.SG within hour time
 ‘My repainting of the car in one hour’

Another property of CENs is that if CENs are formed with a predicate that takes an internal argument, that argument must surface. In (11), the theme is obligatory with the aspectual modification and the absence of the theme yields ungrammaticality. According to Alexiadou (2001), the obligatoriness of the theme argument indicates that these nominalizations inherit the argument structure of their corresponding verb.

- (11) *man-o per-daž-ym-as per valandą laiko
 me-GEN.POSS PFV-paint-NMLZ-NOM.SG within hour time
 Intended ‘my repainting (of something) in one hour’

Further evidence for treating Lithuanian nominalizations as CENs comes from temporal modifiers. CENs permit temporal modifiers like *frequent* or *constant*. These modifiers can occur with a singular deverbal noun as in (13). However, result nominals, which lack a complex structure, behave differently. Temporal modifiers cannot be added to these nominals when the noun is singular as in (14) whereas plural result nominals are compatible with these modifiers as in (15).³

- (12) Iev-a egzamin-av-o mokini-us.
 Ieva(F)-NOM.SG exam-v-PST.3 student-ACC.PL
 ‘Ieva examined/was examining the students.’
- (13) Iev-os dažn-as mokini-ų egzamin-av-im-as
 Ieva(F)-GEN.SG frequent-NOM.M.SG student-GEN.M.PL exam-v-NMLZ-NOM.SG
 ‘Ieva’s frequent examination of students made everyone scared.’
- | | |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| (14) *dažn-as
frequent-NOM.M.SG
egzamin-as
exam(M)-NOM.SG
‘a frequent exam’ | (15) dažn-i
frequent-NOM.M.PL
egzamin-ai
exam(M)-NOM.PL
‘frequent exams’ |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

To conclude, Lithuanian nominalizations are CENs. They denote complex events and include some verbal structure as confirmed by the aspectual modification and the obligatory presence of an internal argument.

³Pluralization of CENs is a separate issue. Grimshaw 1990 suggests that the deverbal noun in CENs cannot be plural. Nevertheless, it has been argued that CENs that are telic can be pluralized e.g., Alexiadou 2009; Alexiadou et al. 2010.

2.2 *vP* internal layers

In this section, I identify different *vP* internal layers present in CENs by examining verbal affixation. CENs pattern like verbal clauses: they include a complex *vP* internal structure which hosts a *v* head, inner aspect and secondary imperfectivization.

2.2.1 *Causatives*

Lithuanian has causative suffixes *-in*, *-din*, *-d* that attach to verbs (see Ambrazas et al. 1997, 224-226; Arkadiev and Pakerys 2015). To form a causative, the suffix *-in* is added to predicates like *grow*, (16a). This suffix cannot be used with inchoatives as in (16b).

- (16) a. Petr-as aug-**in**-o triušī-us.
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’ *Causative*
- b. Triušī-ai aug-(***in**)-o.
 rabbit(M)-NOM.PL grow-CAUS-PST.3
 Intended ‘Rabbits were growing.’ *Inchoative*

Just like verbs in verbal clauses, deverbal nouns in CENs permit causative suffixes as in (17). I assume that causative morphology is represented by a *v* head (see e.g., Harley 2013). The presence of *-in* suggests that CENs have a *v* head in their structure.

- (17) Petr-o triušī-ų aug-**in**-im-as
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
 ‘Petras’ growing of rabbits’ (adapted from Pakerys 2006, 129)

2.2.2 *Inner Aspect*

Lithuanian has aspectual prefixes e.g., *nu*, *su*-, etc (Paulauskienė 2006; Arkadiev 2012; Korostenskienė 2017b, Author 2018), which in the Slavic literature are known as lexical prefixes (Babko-Malaya 1999; Svenonius 2004). They add a perfective or temporal meaning to the verb. These prefixes originate inside *vP* because they can introduce a new argument to the structure or form an idiosyncratic meaning with the verb. The deverbal noun in the CEN in (19) takes the lexical prefix *nu*-, just like the corresponding verb in (18). This means that CENs have an inner aspect that is associated with *vP*.

- (18) Mechanik-as **nu**-daž-ė automobil-į per kelias valandas.
 mechanic(M)-NOM.SG PFV-paint-PST.3 car(M)-ACC.SG within couple hours
 ‘The mechanic painted the car in a couple of hours.’
- (19) [Mechanik-o automobili-o **nu**-daž-ym-as per
 mechanic(M)-GEN.SG car(M)-GEN.SG PFV-paint-NMLZ-NOM.M.SG within
 kelias valandas] vis-us nustebin-o.
 couple hours everyone-ACC.PL surprise-PST.3
 ‘The mechanic’s painting of the car in a couple of hours surprised everyone.’

2.2.3 Secondary Imperfectivization

CENs allow imperfective aspect, which is also present in verbal clauses. The imperfectivizing suffix *-inė* attaches to perfective predicates with a lexical prefix and adds an iterative meaning as in (20) (Ambrazas et al. 1997, 237, Armoskaite and Sherkina-Lieber 2008). This phenomenon is called secondary imperfectivization (Schuyt 1990; Svenonius 2004). I follow the literature on Slavic (e.g., Romanova 2004) and assume that this aspect is part of the internal structure of a *vP*.⁴

- (20) Kompanij-os su-pirk-**inė**-j-o akcij-as.
 company(F)-NOM.PL PFV-buy-IPFV-EP-PST.3 stock.F-ACC.PL
 ‘Companies were buying up stocks (repeatedly).’

The imperfectivizing suffix also appears in CENs suggesting that they can have an imperfective aspect as part of their structure. This again is evidence in favor of a verbal aspectual layer being present in the CEN.

- (21) [Kompanij-ų masin-is akcij-ų
 company(F)-GEN.PL massive-NOM.F.SG stock(F)-GEN.PL
 su-pirk-**inė**-j-im-as] ekonomik-os ne-pakel-s.
 PFV-buy-IPFV-EP-NMLZ-NOM.SG economy(F)-GEN.SG NEG-raise-FUT.3
 ‘Companies’ massive buying up of stocks (repeatedly) won’t raise the economy.’

2.2.4 *-si-* clitic

CENs can also appear with the *-si-* clitic. This clitic may have a variety of uses including reflexive, reciprocal or anticausative (Geniušienė 1987; Korostenskienė 2017b). An example with *-si-* is provided with an anticausative use in (22).

- (22) Audini-ai nu-**si**-daž-ė raudon-a spalv-a per
 fabric(M)-NOM.PL PFV-REFL-paint-PST.3 red-INS.F.SG color(F)-INS.SG within
 kelias minutes.
 couple minutes
 ‘The fabric became dyed red in a couple of minutes.’

CENs can be formed with anticausative verbs with *-si-* as in (23). *-Si-* is retained and the theme is genitive. The nominalization has an anticausative reading where the fabric dyed red e.g., because of other clothes that were in the washing machine.

⁴The suffix *-inė* occupies a *vP*-internal position. First, it occurs closer to the root than passive morphology, the *-m/-t* suffixes, which I take to be the reflection of VoiceP; see (i). This suffix is closer to the verbal root than the theme vowel *a*. These facts indicate that *-inė* should be inside a *vP*, given Baker’s (1985) mirror principle. Second, this suffix cannot be attached to the auxiliary as in (i), which is also suggestive of a low position. Third, Korostenskienė 2017b, 478 notes that *-inė* has narrow scope with respect to super-lexical prefixes which are above *vP* (see footnote 11 for super-lexical prefixes).

- (i) Akcij-os buv-(***inė**)-o su-pirk-**inė**-j-a-m-os.
 stock(F)-NOM.PL be-IPFV-PST.3 PFV-buy-IPFV-EP-TH-PRS.PASS.PTCP-NOM.F.PL
 ‘Stocks were bought up (repeatedly).’

- (23) [Audini-ų nu-si-daž-ym-as raudon-a
 fabric(M)-GEN.PL PFV-REFL-paint-NMLZ-NOM.M.SG red-INS.F.SG
 spalv-a per kelias minutes] vis-us mustebin-o.
 color(F)-INS.SG within couple minutes everyone-ACC.PL surprise-PST.3
 Lit. ‘Fabric’s becoming dyed red in a couple of minutes surprised everyone.’

I follow Korostenskienė’s (2017b) analysis of *-si-* and suggest that it originates in *vP*.⁵ Its low position can be observed in agent nominals like (24) (Zaika 2016). These nominals have a *v* head, but lack VoiceP, and yet they do allow *-si-* (Author 2020; see Baker and Vinokurova 2009 for English). The presence of *-si-* in (23) is additional evidence for *vP* in CENs.

- (24) iš-si-suk-inė-toj-as
 PFV-REFL-turn-IPFV-AGN-NOM.M.SG
 ‘a shuffler/shirk’

To summarize, the presence of perfective and imperfective affixes as well as *-si-* and causative morphology in CENs indicates that they contain a verbal layer.

2.3 *vP* external layers

I show that CENs are deficient when it comes to *vP* external projections. CENs have a non-verbal active thematic Voice while outer aspect and modality are absent.

2.3.1 Voice

A thematic Voice is a type of Voice that introduces an external argument θ -role (e.g., Kratzer 1996; Pyllkkänen 2008; Schäfer 2008; Harley 2013) and assigns accusative case to an object (Legate 2014). VoiceP is often treated as a separate projection from *vP*, which is responsible for causative semantics. English CENs like *Maria’s destruction of Rome* are sometimes viewed as transitive (Chomsky 1970). However, various studies suggest that CENs are passive-like (Grimshaw 1990) in that they have a passive Voice, which lacks a projected external argument in its specifier (Alexiadou 2001, 2009, 2017, also Bruening 2013 for a related proposal). Instead, the external argument *Maria* is introduced above VoiceP e.g., in SpecDP (Borer 1993; Alexiadou 2001). Furthermore, unlike transitive constructions with an active VoiceP, English CENs block the assignment of accusative case (Kratzer 1996). I show that Lithuanian CENs contain a nominal active thematic VoiceP, which I refer to as $n_{\text{voiceACT}P}$. In Section 5.1, I will argue that Lithuanian CENs disallow a passive VoiceP found in English CENs.

AGENTIVE READING. The first argument for the thematic Voice in Lithuanian CENs is an obligatory agentive reading. Kratzer (1996, 128) shows that in English CENs, the DP *Maria* in (25) allows two readings: i) the agentive one where *Maria* is the reader of *Pride and Prejudice* and ii) the non-agentive one where *Maria* is interpreted as the one who attended the reading instead of being the reader herself.

- (25) *Maria’s reading of Pride and Prejudice received better reviews than Anna’s.*

⁵These types of reflexive markers in anticausative constructions are also analyzed as being base-generated in a specifier of an expletive Voice which lacks an external argument θ -role (see Schäfer 2008; Sigurdsson 2012; Wood 2015 for Icelandic, see Author 2017 for Lithuanian).

The fact that the agentive reading is optional in English CENs suggests that unlike English gerunds, these CENs lack the external argument introduced in SpecVoiceP (for discussion see Kratzer 1996; Alexiadou 2001; Harley 2009; Embick 2021a).

The agentive interpretation in Lithuanian CENs is obligatory.⁶ (26) introduces a type of context which favors a non-agentive interpretation and yet the genitive DP ‘judge’ is interpreted as an agent. Specifically, the judge read the sonnets herself rather than evaluated the reading.⁷ This suggests that Lithuanian CENs have an agentive Voice where the external argument originates.

Context: In 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.

- (26) Skaitov-ų konkurs-o met-u [pirm-o
 reciter(M)-GEN.PL competition(M)-GEN.SG time(M)-INS.SG first-GEN.M.SG
 teisėj-o Šekspyr-o sonet-ų
 judge(M)-GEN.SG Shakespeare(M)-GEN.SG sonnet(M)-GEN.PL
 skait-ym-as] buv-o daug raišk-esn-is negu
 reading-NMLZ-NOM.M.SG be-PST.3 more expressive-COMP-NOM.M.SG than
 antr-o teisėj-o.
 second-GEN.M.SG judge(M)-GEN.SG
 ‘During the poetry recitation competition, the first judge’s reading of Shakespeare’s sonnets was more expressive than the second judge’s reading.’
 (i) ✓ The judge read the sonnets herself.
 (ii) # The judge attended the reading but did not read the sonnets.

INSTRUMENTALS. Lithuanian CENs also permit instruments which denote the tools that the agent used to perform an action as in (27). This is another indication that they have an agentive interpretation. See Appendix A for more examples.

- (27) SSRS pajėg-ų Klaipėd-os miest-o
 SSRS force(F)-GEN.PL Klaipėda(F)-GEN.SG city(M)-GEN.SG
 puol-im-as **tank-ais** prasidėj-o sausio 27 dieną.
 attack-NMLZ-NOM.M.SG tank(M)-INS.PL start-PST.3 January 27 day
 The Soviet Union’s attacking of Klaipėda city with tanks started on January 27th.⁸

COMITATIVES. External-argument-oriented comitatives which point to a thematic Voice layer are possible. (28) indicates that the agent acted together with the comitative in performing the action.

⁶This generalization applies to CENs with transitive and unergative predicates, but not unaccusatives that do not have an external argument.

⁷(26) has been judged as slightly marginal by 3 speakers. This is not unexpected given that these nominalizations include three different genitive DPs which may be difficult to parse.

⁸Adapted from <http://wikimapia.org/5753340/lt/Alksnyn%C4%97s-gynybinis-kompleksas> Accessed on 10-20-2021

- (28) [Vaik-ų gamt-os tyr-inė-j-im-as kartu
 child(M)-GEN.PL nature(F)-GEN.SG explore-IPFV-EP-NMLZ-NOM.SG together
su tėveli-ais] yra svarb-u tiek jų
 with parent(M)-INS.PL be.PRS.3 important-N that they.GEN
 psichologin-ei tiek emocin-ei būsen-ai.
 psychological-DAT.F.SG and emotional-DAT.F.SG state(F)-DAT.SG
 ‘Children’s exploration of nature together with their parents is important for
 their psychological and emotional state.’⁹

SELF-ACTION READING. Alexiadou (2017) demonstrates that constructions with a thematic Voice do not allow a *self*-action reading whereas constructions that lack this type of Voice do. For instance, English *ing-of* gerunds just like passives, cf. (29a-29b), allow only the type of reading where the children were registered by someone rather than registered themselves. These constructions contain a thematic VoiceP that requires an agentive interpretation and this gives rise to the ungrammaticality of the *self*-action reading. *-ation* nominalizations allow both interpretations as in (29c) suggesting that they may lack a thematic VoiceP (Alexiadou 2017; Wood 2023).

- (29) a. The children were being registered.
 (i) *Theme = Agent: The children registered themselves.
 (ii) Theme ≠ Agent: The children were registered by someone.
 b. The report mentioned a painfully slow registering of the children.
 (i) *Theme = Agent, (ii) Theme ≠ Agent
 c. The report mentioned the painfully slow registration of the children.
 (i) Theme = Agent, (ii) Theme ≠ Agent (Alexiadou 2017, 364)

Lithuanian CENs are incompatible with the *self*-action reading. Lithuanian passives, which have a thematic VoiceP (see Author 2021, in press, Authors 2020), do not permit the *self*-action reading as in (30). The same holds for Lithuanian CENs as in (31). If the agent of the CEN is not overtly expressed, the theme does not have a *self*-action reading suggesting that this construction also contains a thematic VoiceP.¹⁰

- (30) Vaik-ai buv-o registruoja-m-i.
 child(M)-NOM.PL be-PST.3 register-PRPP-NOM.M.PL
 (i) *Theme = Agent: ‘The children registered themselves.’
 (ii) Theme ≠ Agent: ‘The children were being registered by someone.’
- (31) Ši-oje ataskait-oje buv-o kalba-m-a apie labai
 this-LOC.F.SG report(F)-LOC.SG be-PST.3 talk-PRPP-[-AGR] about very
 sulėtėjusį vaik-ų registrav-im-ą.
 slower child(M)-GEN.PL register-NMLZ-ACC.M.SG
 ‘In this report, the slower registration of children is being talked about.’
 (i) *Theme = Agent, (ii) Theme ≠ Agent

AGENT-ORIENTED ADJECTIVES. CENs forbid agent-oriented adverbs like *consciously*, which attach at the level of a verbal thematic VoiceP as in (32). In contrast, agent-oriented adjectives are allowed as in (33).

⁹Adapted from https://www.vdu.lt/cris/bitstream/20.500.12259/108151/1/evelina_sankauskaite_bd.pdf Accessed on 10-20-2021

¹⁰The *self*-action reading is possible when the clitic *-si-* is added to the deverbal noun.

- (32) **[Jon-o netikėt-as įraš-ų*
 Jonas(M)-GEN.SG unexpected-NOM.M.SG record(M)-GEN.PL
su-naik-in-im-as sąmoning-ai] vis-us
 PFV-destroy-CAUS-NMLZ-NOM.SG conscious-ADV everyone-ACC.PL
nustebin-o.
 surprise-PST.3
 ‘Jonas’ unexpected destruction of the records purposefully surprised everyone.’
- (33) *[Jon-o sąmoning-as įraš-ų*
 Jonas(M)-GEN.SG conscious-NOM.M.SG record(M)-NOM.PL
su-naik-in-im-as] vis-us nustebin-o
 PFV-destroy-CAUS-NMLZ-NOM.M.SG everyone-ACC surprise-PST.3
 ‘Jonas’ purposeful destruction of records surprised everyone.’

The fact that CENs are compatible with agent-oriented adjectives rather than adverbs indicates that this Voice is nominal rather than verbal. Adverbs like *loudly* which attach at the level of *vP* are possible, (34), pointing to the presence of *vP*.

- (34) *[Iev-os dažn-as knyg-ų skait-ym-as*
 Ieva(F)-GEN.SG frequent-NOM.M.SG book(F)-GEN.PL read-NMLZ-NOM.M.SG
garsi-ai] *man-e labai erz-in-o.*
 loud-ADV me-DAT very irritate-PST.3
 ‘Ieva’s frequent reading of books loudly irritated me a lot.’

The evidence from the obligatory agentive reading, instrumentals, the *self*-action reading, and comitatives suggests that CENs have a thematic Voice, which assigns an external argument θ -role. This function of Voice is encoded by n_{voiceACT^P} above *vP*, (35). This Voice is nominal as it permits agent-oriented adjectives. In Section 5.1, I will argue for the Voice-bundling approach suggesting that this projection also nominalizes the verbal structure and thus, performs the function of *n*. In terms of Voice, the structure of CENs such (37a) is parallel to that of verbal clauses like (37b).

- (35) CEN (36) Active Verbal Clause
-
- (37) a. *Petr-o triuš-i-ų aug-in-im-as*
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
 ‘Petras’ raising of rabbits’
- b. *Petr-as aug-in-o triuš-i-us*
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’

Both constructions have an active thematic Voice as in (35-36) with the θ -feature. The verbal clause has a thematic subject, *Petras*, introduced in $\text{SpecVoice}_{\text{ACT}^P}$. To encode the Voice head’s requirement to have a specifier, I use the $[\bullet D \bullet]$ feature (Müller

2010). The external argument θ -role is assigned to the DP in SpecVoice_{ACT}P. Given that CENs also contain an agent, *Petras*, I suggest that, just like the thematic subject of transitives, this DP is merged in Spec n_{VOICEACT} P, which bears the [•D•] feature. The agent receives the θ -role from n_{VOICEACT} . Lithuanian CENs in this respect differ from English CENs, whose external argument is introduced in SpecDP (Alexiadou 2001).

2.3.2 Outer Aspect

Affixes that are reflections of aspectual projections above v P are absent in Lithuanian CENs. The suffix *-dav* is a realization of an outer aspect which encodes a habitual meaning as in (38) (Sližienė 1995). It is above v P because, unlike lexical prefixes (see Section 2.2.2), *dav-* does not affect the argument structure of the verb and in passives, it attaches to the auxiliary rather than the passive participle (39) as in (Author 2020).

(38) Aš dažy-**dav**-au tvor-as.
 I.NOM paint-HAB-PST.1SG fence(F)-ACC.PL
 ‘I used to paint fences.’ Active

(39) Tvor-os bū-**dav**-o dažo-m-(***dav**)-os
 fence(F)-NOM.PL be-HAB-PST.3 paint-PPP-HAB-NOM.F.PL
 ‘The fences used to be painted.’ Passive

(40) shows that *-dav* is disallowed in CENs meaning that CENs do not preserve the outer aspect of the verbal domain. Hence, a high ApsP, which hosts the suffix *-dav*, is present in verbal clauses but absent in the structure of CENs.

(40) Man-o tvor-ų daž-(***dav**)-ym-as kiekvieną dieną
 me-GEN.POSS fence(F)-GEN.PL paint-HAB-NMLZ-NOM.M.SG every day
 ‘My painting of fences every day’ CEN

Super-lexical prefixes stack outside lexical prefixes, add a transparent aspectual-like meaning to a predicate and therefore, originate above v P (Svenonius 2004 for Slavic, Korostenskienė 2017a,b for Lithuanian).¹¹ *Be-* can have a continuative, progressive meaning: it introduces an ongoing background situation during which some event takes place as in (41) (for functions of *be-* see Sližienė 1995, 227-228; Arkadiev 2011).

(41) **Be**-daž-a-nt automobil-j juod-ais daž-ais,
 CNT-paint-PRS-ACT.PTCP car(M)-ACC.SG black-INS.M.PL paint(M)-INS.PL
 keletas laš-ų nutišk-o ant raudon-ų sėdyni-ų.
 few drop(M)-GEN.PL splatter-PST.3 on red-GEN.F.PL seat(F)-GEN.PL
 ‘While painting the car with the black paint, a few drops fell on the red seats.’¹²

¹¹ (i) provides a template of Lithuanian lexical and super-lexical prefixes (Arkadiev 2011) The super-lexical prefix *be-* will always precede lexical prefixes like *pa-*, and the reflexive clitic *-si-* as in (ii). The prefix *be-* is preceded by another super-lexical prefix *te-* (see Section 2.3.3).

(i) [super-lexical prefix- [lexical prefix- [reflexive *-si-* [verb]]]]

(ii) te-**be**-pa-si-keli-a
 RSTS/PRM-CNT-PFV-REFL-rise-PRS.3

‘Still keeps rising/may it rise.’

(Korostenskienė 2017b, 456)

¹²Adapted from <https://www.ekspertai.eu/sutrumpinti-keleia-skirsnemuneje-po-kurybiniu-architek-turos-dirbtuviu-bus-galima-estetiskiau>. Accessed on 07-19-2021.

The type of aspect encoded by *be-* is incompatible with CENs as in (42). This constitutes evidence that outer aspect is absent in CENs.

- (42) *automobili-o **be-**daž-ym-as juod-ais daž-ais
 car(M)-GEN.SG CNT-paint-NMLZ-NOM.SG black-INS.M.PL paint(M)-INS.PL
 Lit. ‘While painting of the car with black paint’

2.3.3 Modality

CENs in Lithuanian differ from verbal clauses in lacking a Mod(al)P as evidenced by the super-lexical prefix *te-*. This prefix stacks outside the super-lexical prefix *be-* and lexical prefixes, and therefore is positioned higher than the outer and inner aspects (Arkadiev 2011; also footnote 11). *Te-* can add a permissive meaning to the verb, and has been viewed as a modal affix (Holvoet 2021; Korostenskienė 2017b), see (43).

- (43) K-as nor-i, **te-**aug-in-a avokad-us.
 who-NOM.SG want-PRS.3 PRM-grow-CAUS-PRS.3 avocado(M)-ACC.PL
 ‘Let those who wish it grow avocados.’ (Adapted from Arkadiev 2010, 22)

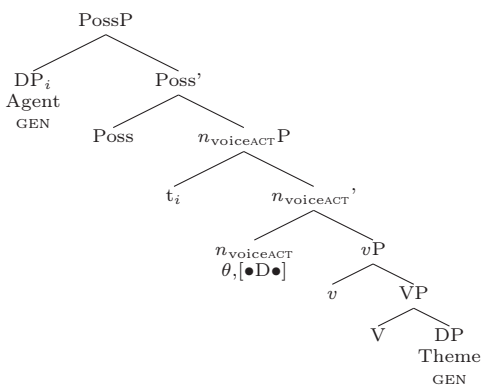
(44) shows that *te-* cannot be part of a deverbal noun. Thus, CENs lack modal projections that could otherwise be found in a verbal clause.

- (44) *Iev-os avokad-ų **te-**aug-in-im-as
 Ieva(F)-GEN.SG avocado(M)-GEN.PL PRM-grow-CAUS-NMLZ-NOM.M.SG
 Lit. ‘Letting Ieva growing of avocados’

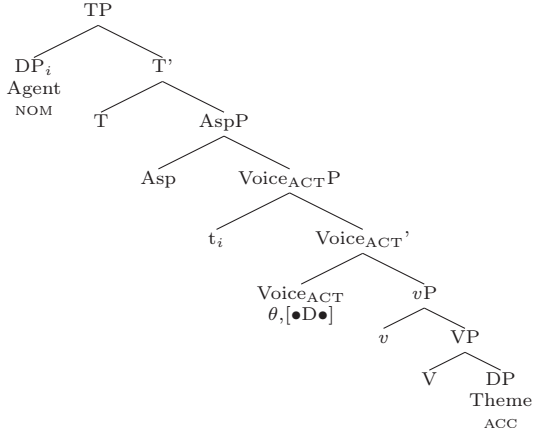
2.4 Interim Summary

I have provided evidence in favor of treating Lithuanian nominalizations as CENs in the sense of Grimshaw 1990. Lithuanian CENs encode complex events and inherit the argument structure of their corresponding verbs. CENs have a rich verbal structure, but slightly differ from verbal clauses as illustrated in (45) and (46).

(45) Lithuanian CENs



(46) Active Verbal Clause



Both constructions have *v*P which can host inner aspect and secondary imperfectivization.¹³ Thus, Lithuanian CENs support the phrasal layering approach according to which *n* nominalizes at least *v*P (Borer 2013; Roeper and van Hout 2009; Alexiadou 2001; Fu et al. 2001; Embick 2010). Both constructions have an active thematic Voice, $n_{\text{VOICE}_{\text{ACT}}}$ in (45) and $\text{Voice}_{\text{ACT}}$ in (46), which has a projected external argument in its specifier. The type of Voice present in CENs is nominal rather than verbal. In Section 5.1, I will provide arguments for Voice-bundling.

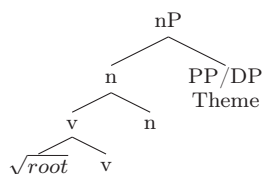
Lastly, outer aspect, i.e., AspP, is present in verbal clauses, but absent in CENs, (45). While verbal clauses can have ModP (not included in the tree), CENs cannot.¹⁴ I follow a rich literature on CENs and assume that they are crowned by the Possessor Phrase (Baker 2015; Wood 2023; also Abney 1987; Alexiadou 2001 for similar proposals) where the agent moves (for movement to SpecPossP see Sections 4.3 and 5.2).

2.5 A note on the Complex Head Analysis of CENs

The structure proposed for Lithuanian CENs has important implications for the complex head analysis according to which the inner structure of CENs lacks a full *v*P (Marantz 2022; Wood 2023; also McIntyre 2014 for -er nominals, Embick 2021b for adjectival passives). I show that this approach does not work for Lithuanian suggesting that languages drastically vary in how much verbal structure is present in CENs.

Wood (2023) argues that Icelandic CENs have a *v* head, but no full *v*P layer. He proposes the structure in (47) where the nominal and verbal heads are combined directly, and the theme argument is introduced as a PP/DP complement of the deverbal noun. According to this analysis, the presence of a complex verbal structure as well as the retention of various verbal case-marking patterns determined within the *v*P region should not be possible in CENs. Wood (2023) shows that these predictions are borne out for Icelandic CENs. However, I argue that they are not borne out for Lithuanian.

(47) Complex Head Approach, Icelandic CENs



In addition to the *v* head, I argued that Lithuanian CENs contain other verbal affixes that originate in *v*P like inner aspect and secondary imperfectivization. This

¹³The two aspects are not illustrated in the tree, for various analyses see Babko-Malaya 1999; Korostenskienė 2017b; Romanova 2004; Svenonius 2004, 2008.

¹⁴Negation, expressed by the prefix *ne-*, can occur in nominalizations (see Pakerys 2006; Arkadiev 2016). However, *ne-* also occurs with nominals that are not CENs as in (i). This means that *ne-* is not associated with a complex verbal structure. Therefore, I tentatively suggest that *ne-* originates inside *v*P in nominalizations.

- (i) Ne-žin-o-j-im-as ar ne-suprat-im-as yra
 NEG-know-*v*-EP-NMLZ-NOM.SG OR NEG-understand-NMLZ-NOM.SG be.PRS.3
 tap-ęs istorini-u reiškini-u.
 become-ACT.PTCP.M.SG historical-INS.SG phenomenon-INS.SG
 ‘Not knowing or incomprehension has already become a historical phenomenon.’
 (<http://tekstynas.vdu.lt/> Accessed on 11/08/2021)

points to a rich verbal structure that includes more than *v*, which is problematic for the analysis in (47) where the only verbal element present is a *v* head.

If CENs contain a *vP*, then inherent case patterns, determined within that *vP*, should be retained in CENs. Indeed, the inherent dative case on the theme is retained in Lithuanian CENs in (48b). The theme DP occurs postnominally with this case (see Section 3 for a detailed discussion and additional examples with ditransitives).

- (48) a. Marij-a tarnav-o atėjūn-ams.
 Marija-NOM.SG serve-PST.3 invader-DAT.PL
 ‘Marija served the invaders.’
- b. Marij-os tarnav-im-as atėjūn-ams/*atėjūn-ų
 Marija-GEN.SG serve-NMLZ-NOM.SG invader-DAT.PL/invader-GEN.PL
 ‘Marija’s serving the invaders’

According to (47), the assignment of inherent dative in CENs should be impossible: there should be no full *vP* meaning that there also should be no ApplP, which is responsible for the assignment of this dative (Authors 2018, Author 2020). The retention of inherent dative constitutes evidence for the phrasal layering approach.

The presence of non-structural case is also attested in copular constructions. Copular predicates like *būti* ‘to be’ occur with a secondary predicate in instrumental case as in (49). The subject and the secondary predicate agree in number and gender. In CENs with copular verbs (see Pakerys 2006), the theme is genitive as in (50). The secondary predicate is retained together with its instrumental case. In order for the CEN like (50) to be possible, this construction should have a *vP* which hosts a secondary predicate and allows the assignment of instrumental.¹⁵

- (49) Iev-a buv-o Parlament-o nar-e keli-as
 Ieva.F-NOM.SG be-PST.3 ParliamentM-GEN.SG member-INS.F.SG few
 kadencij-as iš eil-ės.
 cadence-ACC.PL from row-GEN.SG
 ‘Ieva was a member of the Parliament for a few cadences in a row.’
- (50) Iev-os buv-im-as Parlament-o nar-e
 Ieva.F-GEN.SG be-NMLZ-NOM.SG ParliamentM-GEN.SG member-INS.F.SG
 keli-as kadencij-as iš eil-ės]
 few cadence-ACC.PL from row-GEN.SG
 Lit. ‘Ieva’s being the member of the Parliament for a few cadences in a row’

¹⁵CENs are also possible with resultative secondary predicates (see Pakerys 2006, 145), which appear in the form of an adverb, (i-ii). Various studies suggest that these constructions have a complex *vP* internal structure with ResultP containing a resultative predicate (Hasegawa 1999; Ramchand 2008). Assuming this analysis, the CEN in (ii) should have a verbal structure with ResultP that is challenging for the complex head analysis.

- (i) Iev-a nu-daž-ė dur-is žali-ai.
 Ieva.(F)-NOM.SG PFV-paint-PST.3 door.(F)-ACC.SG green-ADV
 ‘Ieva painted the door green.’
- (ii) [Dur-ų nudaž-ym-as žali-ai] nustebin-o lankytoj-us.
 door.(F)-GEN.SG paint-NMLZ-NOM.M.SG green-ADV surprise-PST.3 visitor(M)-ACC.PL
 ‘Painting of the door green surprised the visitors.’ (Adapted from Pakerys 2006, 145)

To sum up, Lithuanian CENs can be built with complex verbal structures and inherit the argument structure of their corresponding verbs together with non-structural case patterns. These CENs cannot be derived by directly merging n and v , and therefore are incompatible with the complex head analysis. Lithuanian CENs have a full vP supporting the phrasal layering approach.

3 Structural Case and Movement in CENs

In this section, I compare the behavior of internal arguments with structural case and those with non-structural case in Lithuanian CENs. I demonstrate that genitive assigned to the theme of transitive verbs in CENs is not only structural case (see Yip et al. 1987; Marantz 1991; Baby 1997; Alexiadou 2001; Baker 2015 for structural genitive), but one, which can only be assigned under A-movement (see Cardinaletti 1998; Brattico and Leinonen 2009 for movement in nominals).

I assume that case is assigned in syntax by an X^0 (Vergnaud 1977/2008; Chomsky 1981; Chomsky 1995b; Legate 2008). In Lithuanian verbal clauses, the theme of transitives is assigned structural object case, namely accusative, *in situ* by the thematic Voice_{ACT} (Author 2020). In CENs, the theme of transitives is also assigned structural object case, which is genitive rather than accusative. Just like in verbal clauses, this case is assigned by a thematic Voice i.e., $n_{\text{VOICEACT}P}$. I argue that this genitive is assigned under movement to Spec $n_{\text{VOICEACT}P}$. Thus, case assignment under movement may vary within domains in a single language. The distinction established between structural and non-structural case will be used in Section 4 to show that CENs in fact have two distinct structural genitives.

3.1 Structural vs. non-structural case

I compare the case patterns in CENs with those in verbal clauses. In verbal clauses, Lithuanian exhibits a nominative-accusative case alignment. The basic word order is SVO: the theme object follows the verb as in (51). In contrast, the theme with structural accusative in (51) becomes genitive in CENs and precedes the deverbal noun, (52-53).

- (51) Petr-as aug-in-o **triuši-us.**
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’
- (52) Petr-o **triuši-ų** / ***triuš-ius**
 Petras(M)-GEN.SG rabbit(M)-GEN.PL / rabbit(M)-ACC.PL
 aug-in-im-as
 grow-CAUS-NMLZ-NOM.M.SG
 ‘Petras’ raising of rabbits’ (adapted from Pakerys 2006, 129)
- (53) *Petr-o aug-in-im-as **triuši-ų** /
 Petras(M)-GEN.SG grow-CAUS-NMLZ-NOM.M.SG rabbit(M)-GEN.PL /
triuši-us
 rabbit(M)-ACC.PL

The theme in (52) is not introduced by a silent preposition. Verbs like *rėkti* ‘to shout at’ take a PP complement with the preposition *ant* ‘on’. This P selects for a

complement marked with genitive as in (54). In verbal clauses, the PP follows the predicate. In CENs, the PP also follows the deverbal noun as in (55). In discourse neutral situations, PP cannot precede the deverbal noun as in (56). In contrast, the genitive theme in (52) must occur prenominally meaning that it is not the complement of a silent P, but rather I take it to be the complement of V.

- (54) Mam-a rėk-ė **ant vaik-ų.**
 mother(F)-NOM.SG shout-PST.3 on child(M)-GEN.PL
 ‘Mother was shouting at the children.’
- (55) dažn-as mam-os rėk-im-as **ant**
 frequent-NOM.M.SG mother(F)-GEN.SG shout-NMLZ-NOM.M.SG on
vaik-ų
 child(M)-GEN.PL
 ‘Mother’s frequent shouting at the children’
- (56) *dažn-as mam-os **ant vaik-ų**
 frequent-NOM.M.SG mother(F)-GEN.SG on child(M)-GEN.PL
 rėk-im-as
 shout-NMLZ-NOM.M.SG

A different pattern emerges in CENs formed with verbs that take arguments marked with an inherent case, which is a type of non-structural case assigned thematically and is retained in a derivation (e.g., Woolford 2006; Pesetsky and Torrego 2011). As mentioned in Section 2.5, Lithuanian CENs allow inherent case.

Lithuanian predicates like *tarnauti* ‘to serve’ take an internal argument with inherent dative (Author 2020). Unlike the theme with structural accusative case, this dative DP is preserved under passivization as in (58)¹⁶ (see Authors 2018), which is a property of a non-structural case. Author (2020) argues that the dative in (57-58) is assigned by an Appl(icative) head along with a θ -role.

- (57) Marij-a tarnav-o atėjūn-ams.
 Marija(F)-NOM.SG serve-PST.3 invader(M)-**DAT.PL**
 ‘Marija served the invaders.’
- (58) Atėjūn-ams buv-o Marij-os tarnauja-m-a.
 invader(M)-**DAT.PL** be-PST.3 Marija(F)-GEN.SG serve-PRPP-[-AGR]
 ‘The invaders were served by Marija.’ (Authors 2018:3)

In CENs, the dative DP is retained and follows the deverbal noun, (59) (also Pakerys 2009). This DP cannot appear to the left of the deverbal noun (60). Genitive case cannot be assigned to this argument regardless of its position (59-60). The fact that genitive occurs in a place of structural accusative in (52), but does not appear where inherent dative is assigned indicates that this genitive is a structural case. The assignment of genitive is tied to movement. DPs with an inherent case occur postnominally i.e., stay *in situ*, whereas DPs with structural genitive move to prenominal position.

- (59) Marij-os tarnav-im-as atėjūn-ams/*atėjūn-ų
 Marija(F)-GEN.SG serve-NMLZ-NOM.SG invader(M)-**DAT.PL**/invader-GEN.PL
 ‘Marija’s serving the invaders’

¹⁶PRPP in (58) stands for present passive participle, PPP stands for past passive participle.

- (60) *Marij-os atėjūn-ams/atėjūn-ų tarnav-im-as
 Marija(F)-GEN.SG invader(M)-**DAT.PL**/invader-GEN.PL serve-NMLZ-NOM.SG
 ‘Marija’s serving the invaders’

Evidence for the structural vs. non-structural case distinction and movement also comes from ditransitive predicates. Lithuanian CENs can be formed with verbs like *duoti* ‘to give’ (see Zaika 2016), which in verbal clauses appear with a dative goal and an accusative theme as in (61). The dative in (61) is an inherent case assigned by an ApplP (Authors 2018).¹⁷ The accusative theme becomes genitive and precedes the deverbal noun in the CEN. The goal DP retains its dative and follows the deverbal noun, which is expected from a DP with a non-structural case. (62) confirms that the assignment of genitive to the theme is restricted to prenominal position.

- (61) Mari-ja dav-ė policij-ai melaging-us
 Marija(F)-NOM.SG give-PST.3 police(F)-DAT.SG false-ACC.M.PL
 parodym-us.
 statement(M)-ACC.PL
 ‘Marija gave police a false statement.’
- (62) [Marij-os melaging-ų parodym-ų **dav-im-as**
 Marija(F)-GEN.SG false-GEN.M.PL statement(M)-GEN.PL give-NMLZ-NOM.M.SG
 policij-ai] geruoju ne-si-baig-ė.
 police(F)-DAT.SG well NEG-REFL-end-PST.3
 ‘Marija’s giving of a false statement to police didn’t end up well.’

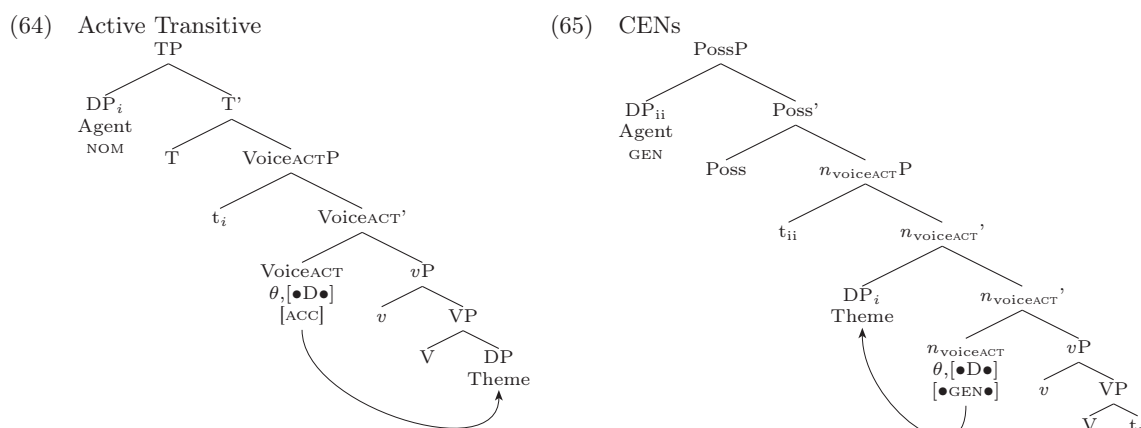
DP objects that typically bear structural accusative in verbal clauses appear in genitive and precede the deverbal noun in CENs. DPs with non-structural case retain their case and occur postnominally, i.e., remain *in situ*. This contrast indicates that the genitive case of the theme object in CENs is structural (see Marantz 1991; Baby 1997; Alexiadou 2001) and is assigned under A-movement.

3.2 Case Assignment

I build on the rich literature on case (see e.g., Vergnaud 1977/2008; Chomsky 1981; Chomsky 1995b; Legate 2008) and assume that case is assigned in syntax by a functional head. Structural accusative case is assigned to a theme grammatical object by an active thematic Voice (see e.g., Legate 2014), which has also been extensively argued for Lithuanian (Author 2020, 2021, in press). I adopt this approach here. In (63a), the theme receives a structural object case, namely accusative, *in situ* from the Voice_{ACT} head, which is encoded by the ACC feature in (64).

- (63) a. Petr-as aug-in-o triušį-us.
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’
- b. Petr-o triušį-ų_i aug-in-im-as t_i
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.SG
 ‘Petras’ raising of rabbits’

¹⁷This dative behaves like the dative found with *serve*-class predicates in (58): it must be retained in passives (see Authors 2018, Author 2020).



CENs like (63b) have a *vP* with the theme object as its complement as in (65). In CENs, the theme bears structural genitive, whereas in verbal clauses, it is marked with structural accusative. To receive genitive, the theme in CENs moves to prenominal position. Case assignment under movement is found with nominative subjects e.g., nominative case assigned under A-movement by T in Faroese (see E F. Sigurðsson 2017). Lithuanian shows that case assignment under movement is also possible in the nominal domain. I propose that just like in verbal clauses, the structural case in CENs is assigned to the theme by an active thematic Voice i.e., n_{voiceACT} . Nevertheless, this head bears the $[\bullet\text{GEN}\bullet]$ feature, which is a type of structure-building feature triggering Merge and Move (Müller 2010).¹⁸ As a result, the theme moves to $\text{Spec}n_{\text{voiceACT}}\text{P}$ position where it receives structural genitive. This analysis is plausible if we assume that ‘tucking in’ derivations (McGinnis 1998; Richards 1999) are possible. Under this approach, the genitive assigned to the theme is a structural object case analogous to structural accusative assigned by an active Voice. In Section 4, I provide evidence from pronominal forms showing that the theme object in CENs indeed bears a type of structural case that is strictly assigned to grammatical objects, equivalent to accusative, whereas the agent is assigned a type of structural genitive, analogous to nominative.

4 Two types of structural genitive cases in CENs

In this section, I explore two morphologically distinct genitives found with pronominal forms. I argue that these two genitives represent two syntactically distinct cases whose distribution is equivalent to a nominative-accusative case pattern found in verbal clauses. This empirical discovery is important for two reasons. First, while CENs in some languages exhibit an ergative case pattern (e.g., Alexiadou 2001, 2017), the Lithuanian data demonstrates that CENs with a clear transitive pattern also exist. Second, it shows that genitive in the nominal domain cannot be viewed as unmarked case as assumed in Dependent Case Theory (e.g., Baker 2015).

CENs in some languages are treated as defective: they have only one DP argument that bears structural case (Alexiadou 2001; Smirnova and Jackendoff 2017). In fact,

¹⁸I assume that the features on functional heads come in order (see Heck and Müller 2003, also Chomsky 1995a, 2000, 2001 for Merge taking place before Move). First, by the means of the $[\bullet\text{D}\bullet]$ feature, the agent will be merged in $\text{Spec}n_{\text{voiceACT}}\text{P}$. Then, by the means of the $[\bullet\text{GEN}\bullet]$ feature, the theme object will move to n_{voiceACT} and receive case.

these CENs show an ergative case pattern where a single argument of intransitive predicates as well as the theme of transitives bear structural genitive case whereas the agent of transitives has a different case marking and is often introduced in a PP e.g., a *by*-phrase (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). This case pattern has been argued to result from CENs having a defective, passive-like Voice¹⁹ that lacks a projected external argument (Alexiadou 2001, 2017). While ergativity and passive structure in CENs in some languages are related²⁰, the two can exist independently of each other and should not be conflated, as mentioned by an anonymous reviewer (for analyses of ergativity see Woolford 2006; Legate 2008; Baker 2015; Deal 2015).

In contrast, Lithuanian CENs do not exhibit an ergative case alignment. I identify two types of cases in CENs: i) possessive genitive (GEN.POSS) that is assigned to the highest available argument in the structure i.e., the agent of unergatives/transitives and the theme of unaccusatives, and thus patterns like nominative in a verbal clause; ii) non-possessive genitive (GEN.NPOSS) which is a type of structural object case assigned to the theme of transitives, and thus is analogous to structural accusative. I show that the non-possessive case is also assigned under A-movement, which is excepted from a grammatical object case in CENs as was established in Section 3.

Even though I do not employ Dependent Case theory to derive the Lithuanian case facts, I discuss some insights that the investigation of CENs provides for this theory. Baker (2015) discusses nominalizations with double genitives in Japanese and Tamil. According to him, the two DPs with genitive cases originate in different spell-out domains which results in genitive being realized as unmarked case. In contrast, I demonstrate that the double genitive pattern found in Lithuanian CENs is not amenable to this type of analysis given that these cases are syntactically distinct.

This study also contributes to the typological literature. In Koptjevskaja-Tamm's work (2002; 2003), the double genitive pattern in Lithuanian CENs has been viewed as a double possessive pattern whereby both DPs are marked with possessive genitive. However, thorough investigation reveals that this type of pattern is impossible.

When it comes to nouns, GEN.POSS and GEN.NPOSS are morphologically syncretic as in (66). Regardless of whether the noun 'rabbits' appears as a theme (66a-66c) or as an agent (66b), the phonological exponent of genitive will be the same ending *-ų*. However, pronominal forms show a morphological distinction between the two cases. In section 4.1, I investigate the two genitives in different constructions. In section 4.2, I examine how these two genitives behave in CENs. In section 4.3, I discuss case assignment.

- (66) a. Petr-o triušī-**ų** aug-in-im-as
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.SG
 'Petras' raising of rabbits'
- b. triušī-**ų** bėg-im-as
 rabbit(M)-PL.GEN run-NMLZ-NOM.SG
 'rabbits' running'
- c. triušī-**ų** krit-im-as
 rabbit(M)-PL.GEN fall-NMLZ-NOM.SG
 'rabbits' falling'

¹⁹Alternatively, it could be argued that CENs contain a defective *v* (Alexiadou 2017). I assume that the source of accusative case assignment as well as the introduction of an external argument is Voice rather than *v*, and thus the status of *v* in CENs is not relevant here.

²⁰Diachronically passives were a major source of ergative constructions (Dixon 1994). The idea that ergative constructions resemble passives goes back to Hale et al. 1970.

4.1 Two genitives across different constructions

Ambrasas et al. 1997, 186-192 report that there are two genitive forms, GEN.POSS and GEN.NPOSS. These forms are found with 1st and 2nd person singular pronouns, the reflexive pronoun, the *wh*-word *who* and quantifiers like *someone*, see Table 2 (Ambrasas 2004, Pakerys 2006, 132-133). For instance, the 2nd person singular pronoun has the GEN.POSS form *tavo* and the GEN.NPOSS form *tavęs*.

GEN.POSS	GEN.NPOSS
<i>man-o</i> - I	<i>man-ęs</i> - I
<i>tav-o</i> - you	<i>tav-ęs</i> - you
<i>sav-o</i> - self	<i>sav-ęs</i> - self
<i>kien-o</i> - who	<i>k-o</i> - who
<i>kažk-ieno</i> - somebody/someone	<i>kažk-o</i> - somebody/someone
<i>niek-ieno</i> - no one	<i>niek-o</i> - no one

Table 2 Two genitive forms

GEN.POSS case is realized with possessors as in (67) (Ambrasas et al. 1997, 192).

- (67) **tav-o**/*tav-ęs nam-as
 you-GEN.POSS/you-GEN.NPOSS house(M)-NOM.SG
 ‘your house’

This case also appears with DPs that are full arguments. In the non-finite evidential construction in (68), the thematic subject is GEN.POSS, the grammatical object is nominative, and the verb takes passive morphology.²¹ The subject cannot appear in GEN.NPOSS (Ambrasas 2004). GEN.POSS is a structural case, it is not assigned thematically like a non-structural case: GEN.POSS is realized with a thematic subject of transitives (68), unergatives (69), as well as a theme subject of unaccusatives (70).

- (68) **Tav-o**/*tav-ęs nuramin-t-a vaik-as.
 you-GEN.POSS/you-GEN.NPOSS calm-PST.PASS.PTCP-[-AGR] child(M)-NOM.SG
 ‘You must have calmed the child down.’
- (69) Kur **tav-o**/*tav-ęs vaikščio-t-a...
 where you-GEN.POSS/you-GEN.NPOSS walk-PST.PASS.PTCP-[-AGR]
 ‘Where you must have walked...’²²
- (70) Kur **tav-o**/*tav-ęs gim-t-a...
 where you-GEN.POSS/you-GEN.NPOSS born-PST.PASS.PTCP-[-AGR]
 ‘Where you must have been born...’²³

GEN.POSS patterns like structural case assigned to the highest argument under A-movement, parallel to structural nominative in finite clauses (Authors 2020).²⁴ In

²¹For arguments showing that this construction is not a passive see Geniušienė 2006; Lavine 2006, 2010, 2021; Spraunienė et al. 2015, Authors 2020, Author 2020.

²²Taken from <http://www.ndt.lt/wp-content/uploads/BIC171> accessed on April 9, 2021

²³Adapted from <https://www.zodynas.lt/terminu-zodynas/J/jaunikauti> accessed on April 9, 2021

²⁴See Lavine 2021 for a different perspective on case assignment in this construction.

finite clauses, the highest available argument receives nominative as is illustrated with transitive (71a), unergative (71b) and unaccusative (71c) predicates.

- (71) a. Tu nuramin-ai vaik-ą.
 you.NOM calm.down-PST.2SG child(M)-ACC.SG
 ‘You calmed the child down.’
- b. Tu čia vaikščioj-ai.
 you.NOM here walk-PST.2SG
 ‘You walked here.’
- c. Tu gim-ei ir užaug-ai Lietuv-oje.
 you.NOM born-PST.2SG and grow-PST.2SG Lithuania(F)-LOC.SG
 ‘You were born and grew up in Lithuania.’

In the evidential in (68), GEN.POSS is realized with a thematic subject. In passives, a demoted thematic subject is expressed in an optional adjunct, equivalent to a *by*-phrase in English, which is also marked with GEN.POSS (Ambrazas et al. 1997, 193). GEN.NPOSS is not permitted as in (72).

- (72) Laišk-as buv-o **tav-o** / *tav-ęs
 letter(M)-NOM.SG be-PST.3 you-GEN.POSS / you-GEN.NPOSS
 palik-t-as.
 leave-PPP-NOM.M.SG
 ‘The letter was left by you.’ (Adapted from Ambrazas et al. 1997, 193)

While GEN.POSS is realized on a thematic subject and a grammatical subject, GEN.NPOSS normally appears with an object of a verb (Ambrazas et al. 1997, 192). Experiencer-like verbs with the reflexive *-si-* like *gailėtis* ‘be sorry’ occur with an object realized in GEN.NPOSS.²⁵ Authors 2020 demonstrate that the genitive in this construction is non-structural case because it is retained in passives.

- (73) Iev-a **tav-ęs**/*tav-o gailėj-o-si.
 Ieva(F)-NOM.SG you-GEN.NPOSS/you-GEN.POSS be.sorry-PST.3-REFL
 ‘Ieva felt sorry for you.’

Another class of predicates that takes a genitive object is so-called intentional predicates like *geisti* ‘to desire’ or *laukti* ‘to wait’. The object of these verbs appears in GEN.NPOSS as in (74) (Ambrazas et al. 1997, 192). Unlike the genitive in (73), this genitive can advance to nominative in the passive and thus cannot be viewed as a type of non-structural case (Author 2020, Authors 2020). These facts suggest that GEN.NPOSS can be either structural or non-structural case assigned to an object.

- (74) Jie **tav-ęs**/*tav-o lauki-a.
 they.NOM you-GEN.NPOSS/you-GEN.POSS wait-PRS.3
 ‘They are waiting for you.’

²⁵ The basic word order in Lithuanian is SVO when the object is not a pronoun (see Section 3.1). If an object is a pronoun, it often precedes the verb yielding an SOV word order as in (73). This word order is based on information structure. In Lithuanian, old information precedes new information (Mathiassen 1996, 236-242, Ambrazas et al. 1997, 690-692). Personal pronouns tend to encode discourse old information, and therefore often occur before the verb. To derive this word order, I tentatively suggest that the pronominal object raises to the edge of a *vP* as proposed for object shift in other languages (see Chomsky 2001).

The fact that GEN.NPOSS can be realized with an object is also confirmed by genitive of negation. When a verb is negated, the grammatical object that bears accusative case becomes genitive in Lithuanian (Authors 2024; also footnote 30). The object must bear GEN.NPOSS (Ambrazas et al. 1997, 192), GEN.POSS is ungrammatical as in (75).

- (75) a. Aš tave myli-u.
I.NOM you.ACC love-PRS.1SG
'I love you.'
- b. Aš **tav-ęs**/*tav-o ne-myl-iu.
I.NOM you-GEN.NPOSS/you-GEN.POSS NEG-love-PRS.1SG
'I don't love you.'

Predicates with two internal arguments can also take an indirect object with GEN.NPOSS. Verbs like *prašyti* 'to ask' occur with the genitive indirect object followed by the genitive theme. The indirect object is realized in GEN.NPOSS.

- (76) Iev-a papraš-ė **tav-ęs**/*tav-o vand-ens.
Ieva(F)-NOM.SG ask-PST.3 you-GEN.NPOSS/you-GEN.POSS water(M)-GEN.SG
'Ieva asked you for water.'

GEN.NPOSS is also realized with complements of prepositions. For instance, the preposition *ant* 'on' takes a genitive complement marked with GEN.NPOSS as in (77).

- (77) Marij-a ant **tav-ęs**/*tav-o rėk-ė.
Marija(F)-NOM.SG on you-GEN.NPOSS/you-GEN.POSS shout-PST.3
'Marija was shouting at you.'

The distribution of the two genitives is summarized in Table 3. GEN.POSS case appears on a possessor, a thematic subject of transitives/unergatives, be it a DP in subject position or a *by*-phrase in the passive, and a grammatical subject of unaccusatives. GEN.NPOSS case is a type of case realized on an object, both direct and indirect, or a complement of a preposition.

	Form
Possessor	
Thematic Subject	<i>tav-o</i> - you.GEN.POSS
Grammatical Subject	
<i>By</i> -phrase	
Direct Object	
Indirect Object	<i>tav-ęs</i> - you.GEN.NPOSS
Complement of P	

Table 3 Distribution of the two genitives across different constructions

4.2 Two genitives in CENs

I now examine the distribution of two genitives in CENs. Pakerys (2006, 138) observes that in nominalizations, the agent is marked with GEN.POSS whereas the theme bears GEN.NPOSS. I adopted Pakerys' 2006 examples and to ensure that we are testing CENs, the aspectual modifier *for many years* was added. Indeed, the nominative agent of the

active appears in GEN.POSS in the CEN in (79). It is ungrammatical for the agent to bear GEN.NPOSS as in (80). The accusative theme of the active takes GEN.NPOSS in the CEN and GEN.POSS is ungrammatical. The fact that GEN.NPOSS replaces accusative suggests that GEN.NPOSS represents structural case. See Appendix B for attested examples.²⁶

- (78) Tu mane palaik-ei daugybę metų.
 you.NOM me.ACC support-PST.2SG many years
 ‘You supported me for many years.’
- (79) [Tav-o man-ęs palaik-ym-as daugybę metų]
 you-GEN.POSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years
 buv-o vis-iems netikėtas.
 be-PST.3 everyone-DAT unexpected
 ‘Your support of me for many years was unexpected to everyone.’
- (80) *[Tav-ęs man-o palaik-ym-as daugybę metų]
 you-GEN.NPOSS me-GEN.POSS support-NMLZ-NOM.M.SG many years
 buv-o vis-iems netikėtas.
 be-PST.3 everyone-DAT unexpected
 ‘Your support of me for many years was unexpected to everyone.’

GEN.POSS case cannot mark both the agent and the theme in CENs as in (81). Koptjevskaja-Tamm (2003) claims that Lithuanian nominalizations exhibit a double possessive pattern and ‘multiple genitives do not appear in structurally different positions’ (p. 734). (81) counterexamples her claim as the two DPs with GEN.POSS yield ungrammaticality. Furthermore, GEN.NPOSS case cannot occur with both the agent and the theme as in (82). This suggests that the two genitives in CENs are structurally distinct cases. The distribution of these genitives is associated with different grammatical functions and restricted to distinct syntactic positions: the thematic subject is realized in GEN.POSS whereas the theme object is marked with GEN.NPOSS. This pattern is expected under the generalization established in Table 3.

- (81) *Tav-o man-o palaik-ym-as daugybę metų
 you-GEN.POSS me-GEN.POSS support-NMLZ-NOM.M.SG many years
 ‘Your support of me for many years’
- (82) *Tav-ęs man-ęs palaik-ym-as daugybę metų
 you-GEN.NPOSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years

²⁶The theme in (79) is not introduced by a silent P. PPs whose complement is marked with GEN.NPOSS appear after the deverbal noun in discourse neutral situations as in (ii-iii), unlike the theme in (79), also see subsection 3.1.

- (i) Mam-a dažn-ai ant tav-ęs rėk-dav-o.
 mother(F)-NOM.SG frequent-ADV on you-GEN.NPOSS shout-HAB-PST.3
 ‘Mother used often to shout at you.’
- (ii) Dažn-as mam-os rėk-im-as ant tav-ęs
 frequent-NOM.M.SG mother(F)-GEN.SG shout-NMLZ-NOM.M.SG on you-GEN.NPOSS
 vis-us liūdin-o.
 everyone-ACC make.upset-PST.3
 ‘A frequent mother’s shouting at you made everyone upset.’
- (iii) *Dažn-as mam-os ant tav-ęs rėk-im-as
 frequent-NOM.M.SG mother(F)-GEN.SG on you-GEN.NPOSS shout-NMLZ-NOM.M.SG

The fact that GEN.NPOSS case is restricted to the theme object in CENs is also confirmed by (83). (83) has a single overt DP argument with GEN.NPOSS, which is interpreted as a theme rather than an agent. I assume that examples like (83) are transitive constructions: they have a syntactically projected null external argument and an overt theme object with GEN.NPOSS, see Section 5.1 for argumentation.

- (83) [Toks šimtaprocentin-is man-ęs
 such.NOM.M.SG one.hundred.percent-NOM.M.SG me-GEN.NPOSS
 palaik-ym-as ištisus metus] buv-o vis-iems netikėtas.
 support-NMLZ-NOM.M.SG many years be-PST.3 everyone-DAT unexpected
 ‘Such 100% support of me for many years was unexpected to everyone.’

If the nominalization has one overt DP with GEN.POSS, then that DP can be interpreted as an agent (Pakerys 2006), as in (84)-(i). Under this type of reading, no overt theme is present. Recall that CENs require an obligatory presence of the theme when formed with transitive predicates (see Section 2.1), thus the construction in (84) with the agentive reading is not a CEN. Pakerys (2006) notes that the DP with GEN.POSS can be also interpreted as a theme. My 6 out of 8 consultants favour the agent reading over the theme reading as indicated in (84)-(ii).

- (84) [Tav-o palaik-ym-as] vis-us nustebin-o.
 you-GEN.POSS support-NMLZ-NOM.M.SG everyone-ACC surprise-PST.3
 ‘Your support was unexpected to everyone.’ (i) Agent ✓, (ii) %Theme

For those speakers who allow the theme interpretation with GEN.POSS, this construction seems to be equivalent to English nominals like *Rome’s destruction*, which are incompatible with a telic reading e.g., **Rome’s destruction in two hours*. These instances are simple event nominals, which lack an internal argument (Alexiadou 2001; Borer 2003a). Thus, *Rome* is base-generated above *nP*. The same pattern holds in Lithuanian. (85) includes a telic modifier and has the type of reading which favors a theme interpretation of the DP with GEN.POSS and yet (85) is ungrammatical.

Context: Your business hasn’t been doing great. However, we, your friends, always supported you.

- (85) *Nepaisant įvairių nesėkmių, [toks neįtikėtinai tav-o
 regardless various failures such incredible you-GEN.POSS
 palaik-ym-as visus šiuos metus] padėj-o tau tobulė-ti.
 support-NMLZ-NOM.SG all these years help-PST.3 you.DAT develop-INF
 Intended ‘Despite various failures, such incredible support of you for many years helped you to grow as a person.’

In CENs with unergative predicates, the agent is assigned GEN.POSS case rather than GEN.NPOSS case as in (86). This is expected given that in CENs with transitive predicates, the external argument is also realized in GEN.POSS.

- (86) [Tav-o/*tav-ęs plaukioj-im-as baseine po
 you-GEN.POSS/you-GEN.NPOSS swim-NMLZ-NOM.SG swimming.pool DISTR
 dvi valandas kiekvieną dieną] vis-us džiugin-o.
 two hours every day everyone-ACC.PL make.happy-PST.3
 ‘Everyone liked your swimming in the swimming pool for two hours every day.’

The theme of unaccusatives is also marked with GEN.POSS case, and GEN.NPOSS is ungrammatical as in (87).²⁷ This sharply contrasts with the theme of CENs with transitive predicates, which bears GEN.NPOSS case. This contrast indicates that GEN.POSS case tracks the highest available argument. In CENs of transitives, the highest available argument is the agent. In CENs of unaccusatives, the highest available argument is the theme. Both of these arguments are assigned the same case.

- (87) [Man-o/*man-ęs dažn-as krit-im-as nuo
me-GEN.POSS/me-GEN.NPOSS frequent-NOM.SG fall-NMLZ-NOM.M.SG from
laipt-ų] baig-ė-si galv-os traum-a.
stair(M)-GEN.PL end-PST.3-REFL head(F)-GEN.SG injury(F)-INS.SG
'My frequent falling from the stairs ended in a head injury.'

Table 4 summarizes my findings. GEN.POSS in CENs behaves like structural nominative in verbal clauses in (71). It marks the highest available argument: the thematic subject of transitives and unergatives, and the theme of unaccusatives. GEN.POSS is realized on both agents and themes meaning that it is not related to a specific θ -role. Thus, GEN.POSS cannot be treated like a non-structural case, which is assigned thematically. The behavior of GEN.POSS in CENs is consistent with that of GEN.POSS in the evidential in (68-70) where it also tracks the most prominent argument.

Type of DP	CENs	Verbal Clauses
Agent of transitives	GEN.POSS	NOM
Agent of unergatives		
Theme of unaccusatives		
Theme of transitives	GEN.NPOSS	ACC

Table 4 Case marking in CENs and finite verbal clauses

GEN.NPOSS is realized on the theme of transitives as in (79), repeated in (88) which in verbal clauses is assigned structural accusative as in (78). Therefore, this case corresponds to structural object case assigned to a grammatical object.

- (88) Tav-o man-ęs palaik-ym-as daugybę metų
you-GEN.POSS me-GEN.NPOSS support-NMLZ-NOM.SG many years
'Your support of me for many years'

GEN.NPOSS in (88) does not behave like a non-structural case. DPs with inherent dative retain their case and occur to the right of the deverbal noun as in (89).²⁸

²⁷Grimshaw (1990) claims that like passives, nominalizations require the demotion of an external argument. Unaccusatives lack an external argument, and therefore should not occur in CENs. However, CENs with unaccusative predicates are attested in various languages including Hebrew (Ahdout and Kastner 2020), Greek and Catalan (Alexiadou 2001). Lithuanian belongs to this group of languages as well since unaccusatives can serve as a basis for CENs as in (87).

²⁸Regardless of whether the pronominal object bears structural case, recall (78), or non-structural one (89a), it will precede the verb resulting in an SOV word order in verbal clauses. This object shift is motivated by information structure (see footnote 25). CENs with pronominal forms show a different word order: if the pronominal object is marked with a structural case, it precedes the deverbal noun, undergoes movement. If the pronominal object is marked with a non-structural case, it stays *in situ*, postnominally, see (89b). In CENs, the movement of the object is based on case assignment whereas in verbal clauses it is not.

The internal argument cannot bear GEN.NPOSS, which is predicted if GEN.NPOSS is a structural case. Unlike the DP marked with inherent case, the DP with GEN.NPOSS case occurs prenominally. This indicates that inherent case is assigned *in situ* whereas GEN.NPOSS case is based on A-movement to prenominal position (also see Section 3.1).

- (89) a. Jon-as tau/*tav-ęs tarnav-o kelis
Jonas(M)-NOM.SG you.DAT/you-GEN.NPOSS serve-PST.3 several
dešimtmečius iš eilės.
decades from row
'Jonas served you for several decades in a row.'
- b. [Jon-o tarnav-im-as tau/*tav-ęs kelis
Jonas(M)-GEN.SG serve-NMLZ-NOM.M.SG you.DAT/you-GEN.NPOSS several
dešimtmečius iš eilės] vis-us glumin-o.
decades from row everyone-ACC.PL be.puzzled-PST.3
'Jonas' serving of you for several decades in a row puzzled everyone.'
- c. *[Jon-o tau/tav-ęs tarnav-im-as kelis
Jonas(M)-GEN.SG you.DAT/you-GEN.NPOSS serve-NMLZ-NOM.M.SG several
dešimtmečius iš eilės] vis-us glumin-o.
decades from row everyone-ACC.PL be.puzzled-PST.3
'Jonas' serving of you for several decades in a row puzzled everyone.'

Additional evidence for treating GEN.NPOSS as structural case comes from predicates like *kaltinti* 'to blame' with two internal arguments, one marked with accusative and another one with instrumental as in (90). The DP theme with accusative appears in GEN.NPOSS and the agent bears GEN.POSS in the CEN in (91). Both DPs precede the deverbal noun. The DP with non-structural case, namely instrumental, retains its case and follows the deverbal noun, as expected.

- (90) Aš tav-e kalt-in-au nebūt-ais nusikaltim-ais.
I.NOM you-ACC blame-CAUS-PST.1SG imaginary-INS.M.PL crime(M)-INS.PL
'I blamed you for unprecedented crimes.'
- (91) [Man-o dažn-as tav-ęs kalt-in-im-as
me-GEN.POSS frequent-NOM.PL you-GEN.NPOSS blame-CAUS-NMLZ-NOM.SG
nebūt-ais nusikaltim-ais] vis-us erzín-o.
imaginary-INS.M.PL crime(M)-INS.PL everyone-ACC annoy-PST.3
'My blaming of you for unprecedented crimes annoyed everyone.'

All in all, the two genitives in CENs correspond to two distinct structural cases and their distribution is equivalent to a nominative-accusative case pattern in verbal clauses. Lithuanian CENs do not exhibit an ergative case alignment, which has been identified in CENs in some languages (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). In Greek, CENs show an ergative marking: in (92-94), the theme of transitives and unaccusatives as well as the agent of unergatives are expressed in genitive (similarly to absolutive in ERG-ABS languages). The agent of transitives appears in a different case marking in a PP.

- (92) i katastrofí tis polis apo tus varvarus mesa se tris meres
the destruction the city.GEN by the barbarians within three days
'the destruction of the city by the barbarians within three days'

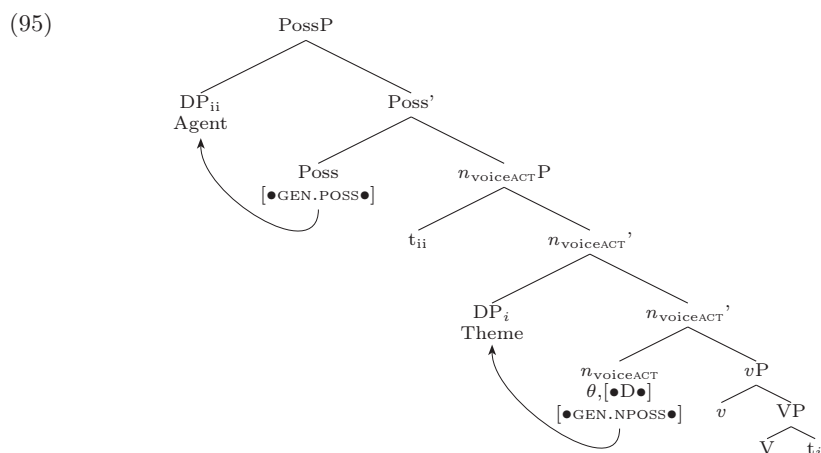
- (93) i afiksi ton pedion (94) to treksimo tu athliti
 the arrive the children.GEN the running the athlete.GEN
 ‘the children’s arrival’ ‘the athlete’s running’

(Adapted from Alexiadou 2017, 256)

While the Lithuanian data differs from Greek, a reviewer points out that Lithuanian CENs are on par with English CENs such as *Maria’s destruction of Rome* where the agent is marked with the Saxon genitive and the theme is introduced by the preposition *of*. English CENs may resemble transitive constructions on the surface; however, they differ from Lithuanian CENs in a number of ways. The DPs with the Saxon genitive are not introduced in the SpecVoiceP in English. In contrast, the genitive agents in Lithuanian are introduced in the specifier of the nominal active Voice, n_{VoiceACT} (see Sections 2.3.1 and 2.4). English CENs have a passive Voice, which does not assign accusative to the theme (Kratzer 1996; Alexiadou 2001, 2017). Instead, ‘of’ is inserted as Last-Resort to license the theme (Harley and Noyer 1998). The theme in Lithuanian CENs is not introduced by a PP. In CENs with transitive predicates, the theme receives structural object case, realized as GEN.NPOSS, from n_{VoiceACT} , as I propose below.

4.3 Case Assignment

CENs have two syntactically distinct cases that are morphologically syncretic when it comes to nouns, but appear in different morphological forms when it comes to pronouns. Given that GEN.POSS behaves like structural nominative whereas GEN.NPOSS behaves like structural accusative, I propose that the case assignment in the CEN in (95) takes place in a parallel manner to the case assignment in the verbal domain.



Recall that I assume that case is assigned in syntax by a functional head. In the active verbal clause, the highest available argument raises to SpecTP and receives nominative case from T. In CENs, I propose that the highest available argument raises to SpecPossP and receives structural case, namely GEN.POSS, as in (95) (see Baker 2015 for case assignment in PossP). This is encoded by the [●GEN.POSS●] feature. The same applies to the agent of unergatives marked with GEN.POSS and the theme of unaccusative predicates, which would originate as a complement of V.²⁹

²⁹A reviewer is wondering why the agent moves to SpecPossP. Evidence for that comes from the word order in CENs with unaccusatives. The theme of these constructions originates as a

In CENs, GEN.NPOSS is realized on the theme of transitives, which is otherwise assigned structural accusative in verbal clauses. Therefore, GEN.NPOSS corresponds to structural object case assigned to a grammatical object. In main verbal clauses, structural object case is assigned by an active Voice and is realized as accusative. In CENs, the structural object case is assigned by n_{VoiceACT} as in (95) and is realized as GEN.NPOSS (also see Section 3.2).³⁰ The case assignment takes place under movement to prenominal position. This is encoded by the [\bullet GEN.NPOSS \bullet] feature in the tree.

If GEN.NPOSS in nominalizations is assigned by an active thematic Voice head, n_{VoiceACT} , then we predict that nominals without this Voice e.g., agent nominals (Baker and Vinokurova 2009) or simple nominals and result nominals (Alexiadou 2009), should disallow GEN.NPOSS. This prediction is borne out.

Author (2020) shows that agent nominals like (97) have a v head as evidenced by the suffix *-in-* and an inner aspect marked with lexical prefixes (see ex (24), also Zaika 2016), which point to the presence of v P. However, these constructions lack a thematic VoiceP e.g., they do not allow agent-oriented instruments or comitatives (see Author 2020 for detailed discussion). The absence of the thematic Voice results in the absence of GEN.NPOSS. In contrast, GEN.POSS, which is not assigned by Voice, is grammatical.

- (96) mait-in-ti tav-e
 feed-CAUS-INF you-ACC
 ‘to feed you’
- (97) tav-o/*tav-eš mait-in-toj-as
 you-GEN.POSS/you-GEN.NPOSS feed-CAUS-AGN-NOM.SG
 ‘one who feeds you’, ‘one who is your provider’

Unlike the CEN in (98), result nominals disallow GEN.NPOSS as in (99) (see Section 2.1 for tests distinguishing CENs and result nominals), but allow GEN.POSS as in (100). The DP with GEN.POSS is interpreted as a possessor. Result nominals can include verb phrases, but exclude Voice (Alexiadou 2009), and, as expected, disallow GEN.NPOSS.

complement of V. It is ungrammatical for the theme with GEN.POSS to stay in situ, it needs to precede the deverbal noun. Thus, the theme needs to move to SpecPossP where it receives GEN.POSS (see ex. 120-122, Section 5.2). I assume that the same movement applies to the agent of transitives and unergatives.

³⁰Under this approach, one and the same structural object case can have different realizations. It is realized as GEN.NPOSS in the nominal domain. Distinct realizations of a structural object case can be observed in verbal clauses. For example, when the verb is negated, genitive of negation (GN) is realized on an object that would otherwise be realized as accusative, see ex. (75). Authors (2024) argue that when NegP, base-generated above an active VoiceP, is present in the structure, the structural object case is realized as genitive, namely GEN.NPOSS. When NegP is absent, it is realized as accusative. Authors propose that GN is a reflection of structural object case. According to them, structural object case, which largely amounts to abstract Case (Vergnaud 1977/2008; Chomsky 1981), is assigned in syntax, then translated to morphological genitive case at PF and later realized at Vocabulary Insertion. The translation process uses the syntactic information available to convert the syntactic case to a specific morphological realization. Similarly, I suggest that structural object case in CENs and in verbal clauses is the same syntactic case. However, in the presence of n (which in this construction is bundled with Voice), structural object case is GEN.NPOSS rather than accusative in this language. I believe that this is a language-specific property. Note that for example in Hebrew nominalizations with an active VoiceP, the object receives accusative case (Ahdout 2021) and the same goes for English gerunds (Kratzer 1996).

- (98) dažnas man-ęs egzamin-av-im-as
 frequent me-GEN.NPOSS exam-*v*-NMLZ-NOM.SG
 ‘frequent examination of me’
- (99) *dažni man-ęs/straipsni-ų egzamin-ai
 frequent me-GEN.NPOSS/paper-GEN.PL exam-NOM.PL
 Lit. ‘frequent exams of me/papers’
- (100) dažni man-o egzamin-ai
 frequent me-GEN.POSS exam-NOM.PL
 ‘my frequent exams’

Simple nominals like *Maria’s portrait of you* lack verbal properties (see e.g., Baker 2015 for structure). Lithuanian simple nominals with one genitive DP allow only GEN.POSS as in (101). This DP can be interpreted as a possessor or as a complement of the nominal. Adding a second genitive DP to this nominal yields ungrammaticality as in (102). These nominals are deficient: i) they can only license one genitive DP in instances like (102), unlike CENs; ii) the case assigned to the DP can only be GEN.POSS.

- (101) tav-o/*tav-ęs portret-as
 you-GEN.NPOSS/you-GEN.POSS portrait-NOM.SG
 ‘your portrait/a portrait of you’
- (102) *Petr-o tav-o/tav-ęs portret-as
 Petras-GEN you-GEN.NPOSS/you-GEN.POSS portrait-NOM.SG
 ‘Petras’ portrait of you’

Even though I do not employ Dependent Case theory, the identification of two distinct structural genitives provides important insights for this theory (Marantz 1991; McFadden 2004; Baker 2015). In this theory, case is realized based on hierarchical relations between DPs and determined late at PF. In nominative-accusative languages, when DP_α c-commands DP_β from an A-position in their local domain, then the case of DP_β will receive dependent case translated as accusative and DP_α will have the unmarked case, which is nominative in verbal clauses. Genitive is viewed as unmarked case in CENs (Baker 2015; Alexiadou 2017; Norris 2018). The relevant domains for case determination are the *n*P and DP layers (Baker 2015; Alexiadou 2017). Baker 2015 suggests that in CENs with two genitives both cases are unmarked. They are determined in different spell-out domains: the theme receives the unmarked genitive in the *n*P domain, whereas the agent gets its unmarked genitive in the DP domain.

Baker’s analysis is not applicable to Lithuanian CENs. The two genitives in Lithuanian cannot be viewed as unmarked cases because GEN.POSS and GEN.NPOSS represent syntactically different cases. An alternative view could be that GEN.POSS is a type of unmarked case whereas GEN.NPOSS is a type of dependent case in nominalizations. For this analysis to work, the two DPs would need to be in the same domain. Nevertheless, I have argued that GEN.POSS is assigned in the PossP domain whereas GEN.NPOSS is assigned in the $n_{VoiceACT}$ P domain which, as pointed out by a reviewer, contain heads that check case independently of each other.

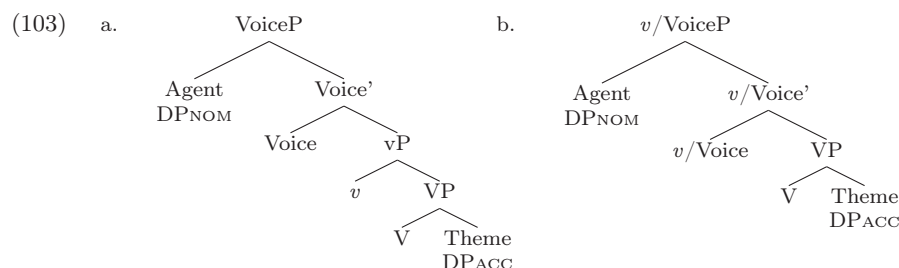
To sum up, so far I have argued for the phrasal layering approach suggesting that Lithuanian CENs contain a *v*P with its arguments and CENs like active verbal clauses have two distinct cases, which also points to the presence of an active Voice in CENs.

5 Voice bundling and the flavours of Voice in CENs

In this section, I argue for a Voice-bundling approach: CENs contain an $n_{\text{voiceACT}P}$, which encodes the functions of an active thematic Voice and a categorizing n head. I demonstrate that Lithuanian CENs do not allow passivization, which is one of the main arguments for the Voice-bundling analysis.

5.1 Voice Bundling

A Voice-bundling parameter was introduced by Pykkänen (2002, 2008). Some languages e.g., Finnish (Pykkänen 2008), Hiaki (Harley 2013) or Acehnese (Legate 2014), are Voice-splitting: they have separate vP and VoiceP projections as in (103a).³¹ As mentioned in Section 2.3.1, VoiceP and vP perform different functions: a thematic Voice introduces agentive semantics and assigns accusative case, whereas v is responsible for causative semantics (e.g., Kratzer 1996; Pykkänen 2008; Harley 2013; Legate 2014). In this group of languages, Voice and v function independently of each other, and could be encoded by different morphemes. In Voice-bundling languages like Ch’ol (Coon and Preminger 2012), Persian (Folli et al. 2005; Harley 2017) or Italian (Folli and Harley 2005, 2007), we find a single v /Voice projection as in (103b). v /VoiceP serves all functions that v and Voice would perform independently. Hence, the assignment of accusative case, the introduction of an external argument or causative semantics as well as verbalization are subsumed under one head, v /Voice. According to Harley 2017, if we assume that one terminal node is represented by one morpheme, then the v /Voice head should be expressed by a single morpheme rather than two.



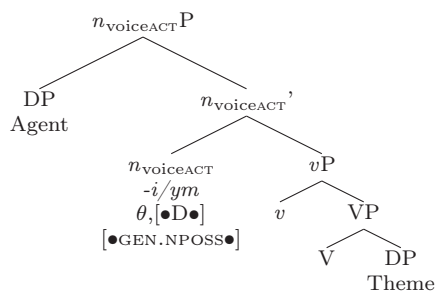
Author 2020, 2021a, 2021b argues that vP and VoiceP are separate projections in the verbal domain in Lithuanian. In the nominal domain, the functions of Voice and v are also not represented under one projection. However, I propose that the properties of Voice and n are encoded by one functional head, n_{voiceACT} as in (104)³² (see Punske 2010, 2012 for a similar approach), which is the type of head that is listed in the pre-syntactic lexicon (see Giorgi and Pianesi 1997 for bundling in the lexicon). In the Distributed Morphology terms (Embick 2015), this would be List 1. I provide novel evidence enriching the typology of Voice and showing that Voice-bundling can be crosscategorical: features from the nominal domain and those from the verbal domain

³¹As mentioned by Harley 2017, the idea that different functions can be encoded by different heads has also been proposed earlier by postulating the Split-IP parameter, according to which, there should be one projection for agreement and another one for tense, e.g., Thráinsson 1996; Bobaljik and Thráinsson 1998; Conradie 2007, for the Split-CP analysis see Rizzi 1997.

³²The tree in (104) is a simplified version that does not include movement.

can be realized on a single head, (see Panagiotidis 2015 for heads bearing both nominal and verbal features). This goes against H. Á Sigurðsson 2009’s claim that bundling needs to be restricted to a single domain.

(104)



In Section 2.3.1, I argued that CENs have a thematic Voice, which is non-verbal. CENs also must contain a head which nominalizes the structure. I suggest that the functions of these heads are represented by a single n_{VOICEACT} projection. The head of this projection is represented by a single morpheme, the suffix $-i/ym$, which marks nominalizations. The n_{VOICEACT} head nominalizes the verbal structure, just like a regular n head would do. CENs lack the properties of an ergative construction and display characteristics parallel to those of an active transitive construction with a nominative-accusative marking. Given the existing parallels between the nominal and verbal domains, I have proposed that just like an active thematic Voice, n_{VOICEACT} also introduces an external argument θ -role to a DP in $\text{Spec}n_{\text{VOICEACT}}P$ (Section 2).³³ This head assigns structural object case to the theme argument (Sections 3 and 4).

Under this approach, $n_{\text{VOICEACT}}P$ bears the properties of an active Voice. However, CENs have been argued to have a passive Voice, which is a type of thematic VoiceP that lacks an external argument projected in its specifier (e.g., Alexiadou 2001, 2009, 2017; Borer 2001; also Bruening 2013 for a related proposal; for earlier discussions see Grimshaw 1990). A striking property of Lithuanian CENs is that they resist passivization i.e., they are incompatible with a type of Voice that lacks a projected agent, which, as I show below, supports the Voice-bundling analysis.

The first argument for subsuming the functions of Voice and n under one projection comes from the lack of Voice morphology. If a Voice head had its own projection distinct from nP , then we should find a morphological reflection of it. Passive morphology is a reflection of a thematic Voice and can be found in CENs across languages showing a Voice-splitting behavior e.g., Turkish (Comrie 1976), Serbian (Bašić 2010); also subject nominalizations in Oshiwambo (Lee and Ndapo 2024) and Xhosa (Mletshe 2010); Hiaki nominals (Harley 2020).³⁴ In Lithuanian, the passive suffixes are $-m/-t$ as in (105).³⁵

³³Tying agentive semantics to a projection that also has nominal properties has been proposed for English agent nominals by Baker and Vinokurova 2009.

³⁴Some CENs may lack passive morphology. A reviewer points out that the absence of passive morphology may not be informative. English gerunds contain an active Voice head, which has no overt morphological marking. English CENs have a passive Voice which is also encoded by a null morpheme. Voice in both constructions is an independent projection and appears in the null form. For similar facts in Hebrew nominalizations with an accusative object, and those with a genitive object, see Ahdout 2021. Hence, this test needs to be treated with caution. The absence of passive morphology in Lithuanian CENs is consistent with my other arguments for the Voice-bundling approach including the absence of a passive Voice.

³⁵Ambrasas (1978) notes that historically the passive morpheme, $-m/-t$, used to be a nominalizing, deverbal suffix.

highest available argument, and therefore it should be also assigned GEN.POSS (recall Table 4). However, this pattern is ungrammatical, (109a-109b). The examples below include two positions for the agent: a postnominal position and a prenominal one. Furthermore, CENs with one overt DP, which is a theme and has GEN.POSS, are not possible, as was established in Section 4, (see ex. 84-85). These findings suggest that Lithuanian CENs lack a passive Voice, which otherwise should be available if a thematic VoiceP and *n*P were separate projections.

- (109) a. *tav-o man-o palaik-ym-as daugybę metų
 you-GEN.POSS me-GEN.POSS support-NMLZ-NOM.SG many years
 b. *man-o palaik-ym-as tav-o daugybę metų
 me-GEN.POSS support-NMLZ-NOM.SG you-GEN.POSS many years
 ‘support of me by you for many years’

In passives of verbal clauses without a *by*-phrase, the agent is not syntactically projected e.g., it cannot bind anaphors or control (Bruening 2013; Legate 2014; for Lithuanian see Author 2021a,b). In contrast, some studies suggest that CENs without a *by*-phrase have a syntactically projected null external argument, roughly equivalent to PRO, (Roeper 1987; Sichel 2009, 2010; Bruening 2013). Lithuanian CENs lend support to this observation. Unlike passives, they have a null projected agent.

CENs have the properties of an active transitive construction: they have a null projected external argument and a theme grammatical object. The null external argument can be interpreted as a generic, impersonal *one/you* or as a little *pro* if there is a previously mentioned linguistic antecedent. The syntactic presence of the null agent is signaled by the agent’s ability to bind the reflexive non-possessive subject-oriented anaphor *sau* in adjunct position in (110). The theme functions like a grammatical object in that it bears a grammatical object case, GEN.NPOSS.

- (110) [Toks IMP_i man-ę_j palaik-ym-as vien tik dėl
 such me-GEN.NPOSS support-NMLZ-NOM.SG only just because.of
 naudos sau_i/*_j] yra nepriimtinas.
 benefit self.DAT be.PRS.3 unacceptable
 ‘Such support of me for reasons that are beneficial for oneself is unacceptable.’

The implicit agent binds the reflexive anaphor, which is a grammatical object, as in (111). If the null agent can bind an anaphor, then it means that it is syntactically projected in the structure. The theme appears in GEN.NPOSS as expected.

- (111) [Nuolatinis IMP_i sav-ę_i palaik-ym-as] duod-a
 constant self-GEN.NPOSS support-NMLZ-NOM.SG give-PRS.3
 reali-ą psichologin-ę naud-ą.
 real-ACC.F.SG psychological-ACC.F.SG benefit(F)-ACC.SG
 ‘Such constant support of oneself gives a real psychological benefit.’³⁶

The subject-oriented anaphor can also appear in the reflexive possessive form *savo* functioning like a modifier of a noun e.g., *country* in (112). The null agent binds the possessive anaphor, and therefore is part of the syntactic structure of the CEN.

³⁶<https://www.alfa.lt/straipsnis/50015751/septynios-priezastys-myleti-save> Accessed on April, 30, 2021.

- (112) IMP_i krepšini-o komand-os palaik-ym-as sav-o_i
 basketball-GEN.SG team-GEN.SG support-NMLZ-NOM.SG self-GEN.POSS
 šal-yje] yra svarb-u.
 country-LOC.SG be.PRS.3 very important-N
 ‘Supporting a basketball team in one’s own country is very important.’

Lastly, the presence of the agent is also supported by the fact that it can bind the reciprocal *each other* as in (113).

- (113) [Toks išskirtin-is IMP_i vienas kit-o_i palaik-ym-as
 such exceptional-NOM.SG one another-GEN support-NMLZ-NOM.SG
 daugybę metų] atneš-ė daug naud-os.
 many years bring-PST.3 much support(F)-GEN.SG
 ‘Such exceptional support of each other for many years brought a lot of benefits.’

I conclude that Lithuanian CENs do have a projected external argument and a theme grammatical object, and therefore these constructions do not bear the properties of passives.³⁷ Under the passivization of CENs, we predict that the external argument should be suppressed contrary to what we find in Lithuanian CENs. The failure to undergo passivization indicates that the introduction of the agent and the ability to nominalize are represented by a single head in Lithuanian CENs, namely n_{voiceACT} .

Another test for Voice-bundling vs. splitting in CENs is agent-oriented adverbs. In Voice-splitting languages, $n\text{P}$ and VoiceP are independent projections, agent-oriented adverbs that attach at the level of a verbal VoiceP should be possible.³⁸ In Voice-bundling languages, if $n_{\text{voiceACT}}\text{P}$ is a single head, then only agent-oriented adjectives should be available since this head is nominal. Indeed, Lithuanian CENs allow agent-oriented adjectives, but disallow agent-oriented adverbs, which suggests that VoiceP is not an independent projection, see (32-33), repeated here in (114-115).

- (114) *Jon-o netikėt-as įraš-ų
 Jonas(M)-GEN.SG unexpected-NOM.M.SG record(M)-GEN.PL
 su-naik-in-im-as sąmoning-ai
 PFV-destroy-CAUS-NMLZ-NOM.SG conscious-ADV
 ‘Jonas’ unexpected destruction of the records purposefully’

³⁷The projected external argument in CENs can be either an overt DP or an implicit argument. A reviewer is asking how to account for this optionality. First, implicit arguments like PRO occur optionally in lots of circumstances, including English gerunds (see Landau 2013; McFadden 2004). Second, there is precedent to the idea that n introduces PRO in nominalizations (see Bruening 2013). Introducing an argument is attributed to the active Voice part of $n_{\text{voiceACT}}\text{P}$ in Lithuanian CENs. However, this argument can optionally be PRO, which I attribute to the properties of n . Thus, $n_{\text{voiceACT}}\text{P}$ can have either the [●D●] feature, which selects for an overt DP, or the [●IMP●] feature, which requires the specifier to be an implicit argument. In both circumstances, $n_{\text{voiceACT}}\text{P}$ has a specifier and assigns structural object case. Finite verbal clauses with the active Voice in Lithuanian do not permit an implicit external argument. However, Lithuanian impersonal constructions marked with passive morphology do. Author 2022 shows that impersonals with transitive predicates behave like active transitive clauses: they have a projected implicit external argument and an accusative object. Author argues that impersonals have an active thematic impersonal Voice with the [●IMP●] feature.

³⁸Agent-oriented adverbs are possible in Greek (Alexiadou 2001) and Hebrew (Borer 2003b) nominalizations.

- (115) Jon-o **sąmoning-as** įraš-ų
 Jonas(M)-GEN.SG conscious-NOM.M.SG record(M)-NOM.PL
 su-naik-in-im-as
 PFV-destroy-CAUS-NMLZ-NOM.SG
 ‘Jonas’ purposeful destruction of records surprised everyone.’

We could imagine a type of analysis where Voice starts out as an independent projection in CENs, and then it is bundled with n later in the derivation either in syntax via head movement (Koopman 1984) or via coalescence (Hsu 2021), or at PF through operations like fusion (Halle and Marantz 1993). If that is the case, then agent-oriented adverbs would be grammatical because VoiceP would be a separate projection where these adverbs could attach. However, this is impossible in Lithuanian CENs suggesting that the bundle of features of $n_{\text{voice}_{\text{ACT}}}$ comes from the pre-syntactic lexicon.

Lastly, in the nominal domain, n can attach at different levels in Voice-splitting languages e.g., nP can appear above high verbal AspP, which dominates VoiceP (Alexiadou 2017).³⁹ In Lithuanian, the verbal external layers above Voice like a higher AspP or a ModP are absent from CENs (see Sections 2.3.2 and 2.3.3). This is consistent with the Voice-bundling approach: the complex $n_{\text{voice}_{\text{ACT}}}$ head comes from the lexicon, and thus a higher verbal projection that typically originates above a VoiceP cannot be added to the structure. If a higher AspP were present in CENs, it would be below $n_{\text{voice}_{\text{ACT}}}P$ and above vP .⁴⁰ This would mean that this AspP originates lower than the projection that introduces the functions of Voice in general. However, this is not what we find in the verbal domain, the *dav-* prefix, which stands for the higher AspP, attaches to the auxiliary and therefore, originates higher than passive morphology associated with Voice, which appears on the lexical verb as in (39), repeated in (116).

- (116) Automobili-ai bŭ-dav-o dažo-m-(*dav)-i
 car(M)-NOM.PL be-HAB-PST.3 paint-PAST.PASS.PTCP-HAB-NOM.M.PL
 ‘The cars used to be painted .’ Passive

To sum up, the availability of agent-oriented adjectives, the lack of independent Voice morphology, the absence of passivization, and projections that typically intervene between nP and VoiceP constitute evidence for the presence of the $n_{\text{voice}_{\text{ACT}}}P$ in CENs. CENs behave in many respects like main verbal clauses apart from the absence of some high functional projections and a full set of Voice heads. While main verbal clauses are compatible with a passive Voice, CENs are not. $n_{\text{voice}_{\text{ACT}}}P$ performs the functions of an active Voice which is supported by the fact that CENs exhibit a case pattern that is parallel to the nominative-accusative pattern found in active transitive constructions.

The identification of Voice-bundling in CENs indicates that syntactic atoms i.e., building blocks, can come in bundles.⁴¹ There are different options for where bundling can take place: the lexicon, syntax, or post-syntax in various languages.

³⁹In Voice-splitting languages, it is possible to find projections like a high ApplP that intervene between VoiceP and vP in verbal clauses see e.g., Harley 2013.

⁴⁰A reviewer mentions that the impossibility to have ModP and AspP between n and Voice can be accounted for by the selection property of n : in Lithuanian CENs, n selects for VoiceP rather than AspP. Under this approach, nP and VoiceP would be independent projections. However, this analysis would predict that agent-oriented adverbs that attach at the level of VoiceP should be possible in Lithuanian CENs, which is not the case as in (115).

⁴¹This finding is problematic for cartographic approaches (Cinque 1999) and Nanosyntax (Caha 2009; Starke 2009), where it is assumed that each feature has its own projection.

The Lithuanian case provides evidence for complex bundles coming from the lexicon. Another contribution of this study is to do with the ‘domain homogeneous restriction’. H.Á Sigurðsson (2009) suggests that bundled features are ‘domain homogeneous’: for example, the CP domain features only bundle with the features from that domain, the same applies for the features in the verbal region. Voice is part of the verbal domain and has been shown to bundle with the features of other verbal heads like *v* or Cause (Pylkkänen 2002; Harley 2017). Nevertheless, this is not a necessary component of bundling. The domain homogeneous restriction does not hold in Lithuanian CENs: the features of Voice can be bundled with those of *n*, which is part of the nominal domain.

This study has demonstrated that bundling can be crosscategorical. Panagiotidis 2015 also suggests that a single head can bear features from nominal and verbal domains in constructions with a verbal structure, which has been nominalized e.g., Poss-*ing* gerunds, Dutch and Spanish nominalized infinitives. If we assume a categorial uniformity of projections, then the question is how we can combine nominal and verbal projections in a single tree. To address this issue, Panagiotidis 2015 proposes a mixed category head, called a SWITCH, which originates between the nominal and verbal part of the structure. This head has a [uV] feature that takes a verbal complement and an [N] feature which nominalizes the verbal structure and allows for other types of nominal heads e.g., a D, to be merged above the SWITCH. The SWITCH in his system can take different types of verbal complements such as TP, VoiceP, or *v*P, depending on the construction. The main verbal function of this head is to introduce a verbal complement, this head does not perform any other complex verbal functions e.g., the assignment of grammatical object case or the introduction of an external argument θ -role. The Lithuanian case suggests that crosscategorical heads can encode a much more complex bundle of features that encompasses the functions of an active Voice such as the assignment of θ -role or case. Future research should investigate what other mixed-category heads can be found in human languages e.g., one should explore whether the features of *n* can be bundled with those of an AspP, high ApplP or CauseP.

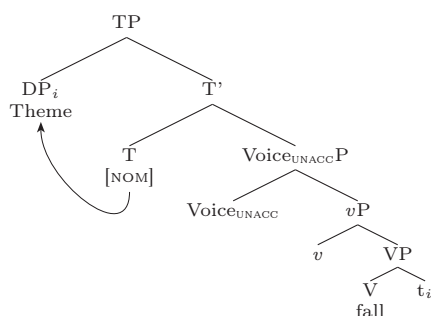
5.2 Flavours of Voice in CENs

I provide a full set of possible configurations of CENs and main verbal clauses with different flavors of an active Voice, thematic and non-thematic.

Some studies distinguish two flavors of an active Voice (Wood 2015; Alexiadou et al. 2015, Author 2020): a thematic Voice and a non-thematic. A thematic Voice assigns an external argument θ -role to the agent and is responsible for assigning accusative in verbal clauses with transitive predicates (see Section 3, ex. (64); see Section 4). Verbal clauses with unergatives like *work* also contain a thematic Voice with an external argument in SpecVoiceP, but lack a theme grammatical object. Verbal clauses with unaccusative predicates like *fall* contain a non-thematic active Voice, which lacks an external-argument θ -role and does not assign accusative case, as in (117). The theme argument raises to SpecTP position and receives nominative case from T.⁴²

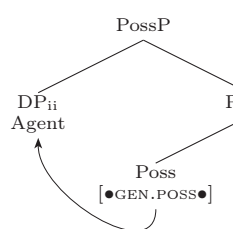
⁴²A type of non-thematic Voice with unaccusatives is attested in Lithuanian impersonal constructions in which the Voice head is realized by passive morphology and requires its specifier to be filled by an implicit theme (see Author 2022 for a detailed discussion). The non-thematic Voice in (117) does not require a specifier.

(117)

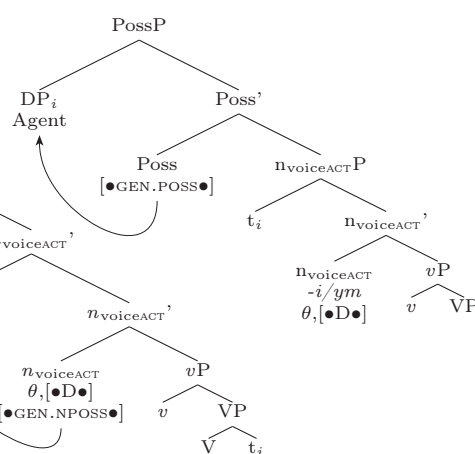


CENs with transitives and unergatives will have the $n_{\text{VOICEACT}P}$ as in (118) and (119). The agent, introduced in $\text{Spec}n_{\text{VOICEACT}P}$, will raise to PossP and receive GEN.POSS . CENs with unergatives lack a theme argument whereas CENs transitives do not. The n_{VOICEACT} head of CENs with transitives will assign GEN.NPOSS to the theme under movement to $\text{Spec}n_{\text{VOICEACT}P}$. The verbal complex will attach to n_{VOICEACT} encoded by the suffix $-i/ym$ via head movement forming a deverbal noun. This derives the correct word order: both the agent and the theme will precede the deverbal noun.

(118)



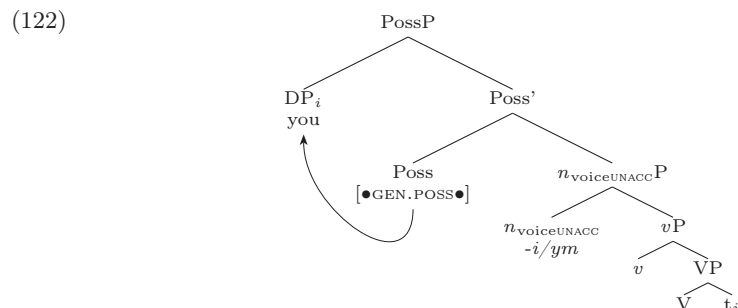
(119)



The structure of CENs with unaccusatives (120) has a $n_{\text{VOICEUNACC}}$ projection as in (122) whose head is a representation of n that nominalizes the structure and that of an active non-thematic Voice which is found in unaccusative verbal clauses as in (117). This head differs from a thematic Voice in that it does not assign an external argument θ -role, and it lacks a specifier.⁴³ It also does not assign a grammatical object case, namely GEN.NPOSS to the theme. The theme must precede the deverbal noun (120-121) but it originates low in the structure in (122). To derive the correct word order, I propose that the theme raises to SpecPossP and receives GEN.POSS case from the Poss head.

⁴³An alternative approach could be that there is no non-thematic Voice in these CENs. In that case, Lithuanian CENs would have two types of ns in the lexicon: one that has its own independent projection, nP , and selects for an unaccusative vP (see Ahdout 2021 for this option in Hebrew); and another one that is bundled with an active thematic VoiceP. Voice-bundling languages in the verbal domain allow unaccusative constructions. The v head in unaccusatives is a different type of head from v that is bundled with an active Voice (see Harley 2017).

- (120) Tav-o krit-im-as nuo kéd-és
 you-GEN.POSS fall-NMLZ-NOM.SG from chair-GEN.SG
 ‘your falling from the chair’
- (121) *krit-im-as tav-o nuo kéd-és
 fall-NMLZ-NOM.SG you-GEN.POSS from chair-GEN.SG



6 Conclusion

This study has explored the properties of CENs in comparison with main verbal clauses. CENs have often been viewed as defective in that they have a passive Voice that lacks an external argument in its specifier and does not assign accusative case to the theme. In the literature CENs in some languages have been claimed to exhibit an ergative case pattern rather than a transitive one (e.g., Alexiadou 2001). A surprising property of Lithuanian CENs is that they do not allow passivization. I have demonstrated that CENs in Lithuanian are similar to active verbal clauses. Just like verbal clauses, Lithuanian CENs contain a full *vP* layer as well an active Voice. These CENs are phrasal, and thus incompatible with the recently proposed complex head analysis of CENs (Marantz 2022; Wood 2023) in which *v* is directly merged with *n*. One of the main contributions of this paper was to show that CENs exhibit two distinct genitives which are analogous to a nominative-accusative case pattern suggesting that case assignment in the nominal domain is parallel to case assignment in the verbal domain. However, structural object case in CENs is assigned under movement whereas in verbal clauses it is assigned in situ. Overall, I have demonstrated that just like verbal clauses, CENs can also be transitive (in line with Ahdout 2021).

In many studies that assume the presence of Voice in CENs, Voice is viewed as an independent projection (e.g., Alexiadou 2017; Bruening 2013). The properties of Voice are represented by an independent projection, namely VoiceP, in Lithuanian verbal clauses. I have argued that in the nominal domain, the functions of Voice and the properties of *n* are subsumed under one projection. The presence of agent-oriented adjectives, the lack of independent Voice morphology, the absence of passivization, and projections that typically intervene between *nP* and VoiceP constitute evidence for the *n_{voiceACT}P* in CENs. The discovery of *n_{voiceACT}P* shows that some heads can bear features from different domains (in line with Panagiotidis 2015) and these complex bundles of features come from the lexicon. Future research should explore what other mixed heads we could find in human language e.g., can we find the features of *n* and Voice bundled in agent nominalizations like *the finder of the wallet* which famously in Bantu languages have a complex structure that can host *vP* and VoiceP (Baker and Vinokurova 2009, Lee and Ndapo 2024).

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7 Appendix A

Attested and elicited examples with two genitive phrases.

- (123) a. Kolumb-as atrad-o Amerik-ą.
Columbus-NOM.SG discover-PST.3 America.F-ACC.SG
'Columbus discovered America.'
- b. [Kolumb-o Amerik-os atrad-im-as]
Columbus-GEN.SG America.F-GEN.SG discover-NMLZ-NOM.M.SG
paveik-ė vis-ą pasaul-į.
affect-PST.3 entire-ACC.M.SG world(M)-ACC.SG
'Columbus' discovery of America affected the entire world.'
(adapted from Pakerys 2006, 123)
- (124) a. Profesional-us meistr-as per-daž-ė
professional-NOM.M.SG master(M)-NOM.SG PFV-paint-PST.3
automobil-į.
car(M)-ACC.SG
'The professional mechanic repainted the car.'
- b. [Profesional-aus meistr-o automobili-o
professional-GEN.M.SG master(M)-GEN.SG car(M)-GEN.SG
per-daž-ym-as] kainav-o ne-brangi-ai.
PFV-paint-NMLZ-NOM.M.SG cost-PST.3 NEG-expensive-ADV
'Professional mechanic's repainting of the car was not expensive.'
(adapted from Pakerys 2006, 127)
- (125) a. Tu raš-ei laišk-us.
you.NOM write-PST.2.SG letter(M)-ACC.PL
'You were writing letters.'
- b. [Tav-o laišk-ų raš-ym-as] vis-iems
you-GEN.POSS letter(M)-GEN.PL write-NMLZ-NOM.M.SG everyone-DAT
nusibod-o.
bored-PRS.3
'Everybody is bored with your writing of letters.' (Christen 2001, 509)

- (126) a. Vaik-ai tyr-inė-j-o gamt-ą.
child(M)-NOM.PL explore-IPFV-EP-PST.3 nature(F)-ACC.SG
'The children explored the nature.'
- b. [Vaik-ų gamt-os tyr-inė-j-im-as]
child(M)-GEN.PL nature(F)-GEN.SG explore-IPFV-EP-NMLZ-NOM.M.SG
yra svarb-us tiek jų psichologin-ei tiek
be.PRS.3 important-NOM.M.SG that they.GEN psychological-DAT.F.SG and
emocin-ei būsen-ai.
emotional-DAT.F.SG state(F)-DAT.SG
'Children's exploration of nature is important for their psychological and
emotional state.'⁴⁴
- (127) fizini-ų asmen-ų maž-ų auk-ų
physical-GEN.M.PL person(M)-GEN.PL small-GEN.F.PL donation(F)-GEN.PL
rink-im-as telefon-u
collection-NMLZ-NOM.M.SG phone(M)-INS.SG
'natural person's collection of small donations through phone'⁴⁵
- (128) Austrij-oje pasauli-o čempionat-e
Austria(F)-LOC.SG world(M)-GEN.SG championship(M)-LOC.SG
ypating-am aukščiausi-am pasiekim-ui sąlygoj-o
special-DAT.M.SG highest-DAT.M.SG achievement(M)-DAT.SG condition-PST.3
ne tik fantastin-is **Nerij-aus pasauli-o**
not only fantastic-NOM.M.SG Nerijus-GEN.SG world(M)-GEN.SG
vicečempion-o titul-o iš-kovoj-im-as, bet
vicechampion(M)-GEN.SG title(M)-GEN.SG PFV-achieve-NMLZ-NOM.M.SG but
ir tai, kad čempionat-as buv-o pats masiškiausi-as
and that that championship(M)-NOM.SG be-PST.3 most massive-NOM.M.SG
(net 146 dalyvių vidurkis).
(almost 146 participant rate)
'In the world championship in Austria, the special most highest achievement
was influenced not only by Nerijus' achieving of the vice-champion title, but
also the fact that the championship was one of the biggest ones (with 146
participants)'⁴⁶
- (129) SSRS pajėg-ų Klaipėd-os miest-o
SSRS force(F)-GEN.PL Klaipėda-GEN.SG city(M)-GEN.SG
puol-im-as prasidėj-o sausio 27 dien-ą...
attacking-NMLZ-NOM.M.SG start-PST.3 January-GEN.SG 27 day-ACC.SG
'The Soviet Union's attacking of the city of Klaipėda started on January
27th...'⁴⁷

⁴⁴Adapted from https://www.vdu.lt/cris/bitstream/20.500.12259/108151/1/evelina_s_ankauskaite_b.d.pdf
Accessed on 10-20-2021

⁴⁵<https://e-seimas.lrs.lt> Accessed on 10-20-2021

⁴⁶<http://www.kazlusperto.puslapiai.lt/OSS/10-pasaulio-oss-cemp-ai.htm> Accessed on
10-20-2021

⁴⁷Adapted from <http://wikimapia.org/5753340/lt/Alksnyn%C4%97s-gynybinis-kompleksas>
Accessed on 10-20-2021

- (130) [Man-o laišk-ų raš-ym-as plunksn-a],
 me-GEN.POSS letter(M)-GEN.PL write-NMLZ-NOM.M.SG ink.pen(F)-INS.SG
 vis-iems dar-ė didel-į įspūd-į.
 everyone-DAT.PL make-PST.3 big-ACC.M.SG impression.M-ACC.SG
 ‘My writing of letters with an ink pen made a big impression on everyone.’
- (131) [Jon-o automobili-o vairam-im-as greit-ai
 Jonas(M)-GEN.SG car(M)-GEN.SG drive-NMLZ-NOM.M.SG quick-ADV
 kalnuotose vietovėse] vis-us baugin-o.
 mountainous places everyone-ACC make.afraid-PST.3
 ‘Jonas’s driving of the car quickly in mountainous areas made everyone scared.’
- (132) Savavališk-as kaimyn-o mišk-o kirt-im-as
 wilful-NOM.M.SG neighbor(M)-GEN.SG forest(M)-NOM.SG cut-NMLZ-NOM.M.SG
 laiky-t-as vagyst-e.
 consider-PAST.PASS.PCTPC-NOM.M.SG theft(INS)-ISN.SG
 (i) ‘The wilful neighbor’s cutting of forest was considered to be a theft.’
 (ii) ‘The wilful cutting of neighbor’s forest was considered to be a theft.’⁴⁸
- (133) Vien-u ryškiausi-ų Klaipėd-os kultūrini-ų
 one-INS.M significant-INS.M.SG Klaipėda(F)-GEN.SG cultural-GEN.M.PL
 įvyki-ų tap-o kultini-o režisieri-aus
 event(M)-GEN.PL become-PST.3 cultish-GEN.M.SG director(M)-GEN.SG
 Oskar-o Koršunov-o spektakli-o
 Oskaras(M)-GEN.SG Koršunovas(M)-GEN.SG play(M)-GEN.SG
 pastat-ym-as Klaipėd-os dram-os
 present-NMLZ-NOM.M.SG Klaipėda(F)-GEN.SG drama(F)-GEN.SG
 teatr-e.
 theater(F)-loc.sg
 ‘One of the most significant cultural events of Klaipėda became the cultish director Oskaras Koršunovas’ presenting of the play at the theater in Klaipėda.’⁴⁹
- (134) Tačiau asm-ens_i sav-ęs_i vertin-im-as
 however person(M)-GEN.SG self-GEN.NPOSS evaluate-NMLZ-NOM.M.SG
 nėra taip priklausom-as nuo darbo-nedarb-o
 NEG.be.PRS.3 that dependent-NOM.M.SG from work-NEG.work-GEN.SG
 situacij-os.
 situation(M)-GEN.SG
 ‘However, person’s self evaluation isn’t dependent on work/no-work situation.’
 (Pakerys 2006, 139)
- (135) Ar nuo Kopernik-o laik-ų prasidėj-ęs žmog-aus
 if from Copernicus-GEN time-GEN.PL beginning- person-GEN.SG
 sav-ęs vert-im-as mažyt-e dulkel-e, jo
 self-GEN.N-POSS transform-NMLZ-NOM.SG small-INS.SG dust-INS.SG his

⁴⁸<https://www.vle.lt/straipsnis/paprotine-teise/> Accessed on 11-15-2021

⁴⁹<https://www.delfi.lt/news/daily/lithuania/metai-klaipedai-pazere-staigmenu-ir-pergaliu.d?id=5742088>
 Accessed on 10-16-2022

nor-as sa-ve menkin-ti nėra nepaliaujam-ai
 wish-NOM.SG self-ACC.SG diminish-INF NEG.be.PRS.3 ceaseless-NOM.SG
 progresuojant-is proces-as?
 process-NOM.SG

‘However, isn’t from Copernicus’ time, the emerging man’s evaluation of themselves as a small dust, their will to diminish themselves the persistent, progressive process? Pakerys 2009, 136

Examples with adverbs and adjectives:

- (136) *[Iev-os daiktinių įrodym-ų surink-im-as
 Ieva(F)-GEN.SG material evidence(M)-GEN.PL collection-NMLZ-NOM.M.SG
atsargi-ai] nustebin-o jos vadov-ą.
 careful-ADV surprise-PST.3 her boss(M)-ACC.SG
 ‘Ieva’s collection of material evidence carefully surprised her manager.’
- (137) [Iev-os **atsarg-us** daiktinių įrodym-ų
 Ieva(F)-GEN.SG careful-NOM.M.SG material evidence(M)-GEN.PL
 surink-im-as] nustebin-o jos vadov-ą.
 collection-NMLZ-NOM.M.SG surprise-PST.3 her boss(M)-ACC.SG
 ‘Ieva’s careful collection of material evidence surprised her manager.’

8 Appendix B

- (138) Tarkime, aš gali-u bū-ti jau-tr-us **išorini-am**
 say, I.NOM can-PRS.1 be-INF sensitive-NOM.M.SG external-DAT.M.SG
tav-o man-ęs vertin-im-ui, o tu galbūt
 you-GEN.POSS me-GEN.NPOSS evaluate-NMLZ-NOM.M.SG or you.NOM maybe
 pastebėsi, kad skiri-a-si mūsų požiūr-is...
 recognize.FUT.2.SG that differ-PRS.3-REFL our view(M)-NOM.SG
 ‘Let’s say I can be sensitive to your external evaluation of me while you may recognize that our view differs...’⁵⁰
- (139) [**Tav-o man-ęs mylėj-im-o** lyg-is]
 you-GEN.POSS me-GEN.NPOSS love-NMLZ-GEN.M.SG level(M)-NOM.SG
 nukrent-a.
 fall-PRS.3
 ‘The level of you loving me falls down.’⁵¹
- (140) Eilinis **tav-o man-ęs** citav-im-o fail’as
 ordinary you-GEN.POSS me-GEN.NPOSS cite-NMLZ-NOM.M fail-NOM.SG
 (i) ‘Your ordinary fail of citing me.’ (ii) ‘An ordinary fail of you citing me.’⁵²

⁵⁰<https://www.linkedin.com/pulse/apie-vadovC5%B3-nesaugumo-jausm%C4%85-kaip-tvirt%C4%97ti-tomas-misiukonis/?trk=read,related,article-card,title>, Accessed on 11-15-2021

⁵¹<https://www.lrytas.lt/gyvenimo-budas/seima/2012/05/10/news/dukros-laiskas-mamai-kalta-tik-as-nuolat-patenku-i-beda-pridarau-nesamoniui-5296375> Accessed on 11-15-2021

⁵²<https://www.basketnews.lt/news-39856-heat-susigrazino-persvara-nba-finale-foto-video-statistika.20.html> Accessed on 11-15-2021

- (141) Taigi, **man-o sav-ęs vertin-im-as** -
 hence me-GEN.POSS self-GEN.NPOSS evaluate-NMLZ-NOM.M.SG
 aukšt-as.
 high-NOM.M.SG
 Lit. 'Hence, my evaluation of myself is high.'⁵³
- (142) Man-au, **man-o sav-ęs ieškoj-im-as**
 think-PRS.1SG me-GEN.POSS self-GEN.NPOSS search-NMLZ-NOM.SG
 mat-o-si tiek muzik-oje, tiek man-o įvaizd-yje.
 see-PRS.3-REFL both music-LOC.SG and me.GEN.POSS image-LOC.SG
 Lit. 'I think that my searching of myself is reflected in both my music and my image.'⁵⁴
- (143) Esant toki-ai situacij-ai, **tav-o sav-ęs**
 being such-NOM.SG situation-NOM.SG you-GEN.POSS self-GEN.POSS
vertin-im-as turi būti didžiausias.
 evaluate-NMLZ-NOM.SG have-PRS.3 be-INF biggest
 Lit. 'In this type of situation, your evaluation of yourself must be the biggest.'⁵⁵

⁵³<https://mokslai.lietuviuzodynas.lt/psichologija/saves-vertinimas-2>
 Accessed on 11-15-2021

⁵⁴<https://www.delfi.lt/moterys/asmenybes/londone-gyvenancia-monika-linkyte-nustebino-zmoniu-eldesys-buvau-nepratusi.d?id=79189715> Accessed on 11-15-2021

⁵⁵<https://lt.bmwmarine.net/how-tell-guy-you-like-him> Accessed on 11-15-2021