

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

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Abstract This study provides a counterexample to the well-known claim that complex event nominalizations (CENs) exhibit an ergative case pattern (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014), which has been argued to result from the presence of a passive-like Voice lacking a projected external argument (e.g., Alexiadou 2017). Evidence from Lithuanian demonstrates that ergativity and passive voice are not universal properties of CENs. First, Lithuanian CENs 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 (Pylkkänen 2002, 2008; Harley 2017) to the nominal domain: CENs contain $n_{\text{VOICEACT}P}$, 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 that can also be found in the verbal domain.

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

1 Introduction

This study presents evidence from Lithuanian (a Baltic language) demonstrating that complex event nominalizations (CENs) contain two syntactically distinct genitives that pattern like structural nominative and accusative in verbal clauses. While previous studies have argued that CENs across languages are defective in that they have a

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passive-like Voice and an ergative case pattern (e.g., Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014, for earlier discussions see Williams 1987; Bok-Bennema 1991; Johns 1992; De Wit 1997), the Lithuanian data shows that this is not a linguistic universal: Lithuanian CENs do not exhibit an ergative case pattern, nor do they allow passivization. I argue that CENs have an active thematic Voice with a syntactically projected agent, and display a transitive case pattern. 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 marked with accusative in (1a) is also genitive in the CEN. Both DPs precede the deverbal noun 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)

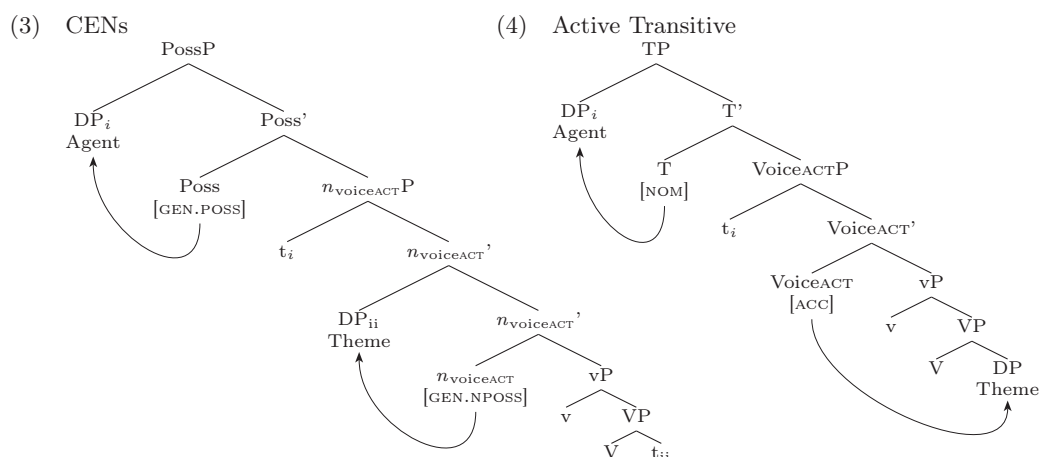
Nouns do not exhibit a morphological distinction between the two genitives in CENs. However, some pronouns have two morphologically distinct genitives: a possessive genitive *mano/tavo* ‘me.GEN.POSS/you.GEN.POSS’ and a non-possessive genitive *manęs/tavęs* ‘me.GEN.NPOSS/you.GEN.NPOSS’ (Ambrazas et al. 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 pronominal forms in (2b), I demonstrate that a possessive genitive and a non-possessive genitive are 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 (3). 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 *v*P. 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). Overall, unlike CENs in other languages, Lithuanian CENs do not show an ergative case pattern.

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 as in (1a). However, if an object is a pronoun, then it tends to precede the verb as in (2a), which I treat as an instance of object shift (see footnote 24). The movement of the pronominal object in verbal clauses is motivated by information structure, not case assignment.



These findings are important for a couple of reasons. First, they show that the ergative pattern in CENs is not a linguistic universal. 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/defective Voice, which lacks a projected external argument (e.g., Alexiadou 2009, 2017, for a similar approach Grimshaw 1990, also Bruening 2013). Lithuanian CENs are not passive constructions as they exhibit a structure parallel to the one found in active verbal clauses, (3-3). I argue that CENs contain a $n_{\text{voiceACT}}\text{P}$ which is a type of projection that acts like an active thematic Voice that assigns structural object case to the theme and has an agent projected in its specifier.

The lack of passivization and the presence of a transitive case pattern are captured by extending a Voice-bundling approach to the nominal domain. In Voice-splitting languages, VoiceP and $v\text{P}$ 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; Pyllkkänen 2008; Schäfer 2008; Harley 2013, 2017; Legate 2014; Alexiadou et al. 2015). In the verbal domain, VoiceP and $v\text{P}$ are separate projections in Lithuanian (Author 2020a, 2020b, 2021). Nevertheless, I argue that Lithuanian CENs display Voice-bundling. Specifically, $n_{\text{voiceACT}}\text{P}$ in Lithuanian CENs performs the functions of both a nominalizing n head and an active thematic Voice (also 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 and assigns structural object case, namely non-possessive genitive, to the theme. Identifying this type of dichotomy enriches the typology of Voice in important ways by showing that Voice-bundling can be crosscategorical rather than must happen within the same domain as has been claimed by H. Á Sigurðsson 2009.

This study also contributes to an on-going debate on how much verbal structure is present in CENs. Some studies argue that CENs are built on top of a full $v\text{P}$ (e.g., Borer 1997, 2012; Roeper and van Hout 1999, 2009; Alexiadou 2001, 2017; Fu et al. 2001), which I will call a phrasal layering approach following Wood 2021. However, more recent studies offer a complex head analysis of CENs where no $v\text{P}$ layer is present in

the structure, instead an n head is directly merged with a v head (see Wood 2021; Marantz 2022; also McIntyre 2014 for *-er* nominals). Evidence shows that Lithuanian CENs strongly support the phrasal layering analysis.

This paper is organized as follows. Section 2 provides an overview of Lithuanian CENs, which have a v P and a non-verbal active Voice, but lack some projections above Voice like higher aspect. Section 3 provides evidence from various case patterns showing that the genitive case assigned to the theme argument of transitive predicates in CENs is a structural case assigned under A-movement. Section 4 distinguishes two structural genitives in CENs using pronominal forms and shows that they pattern like nominative and accusative in verbal clauses respectively. Section 5 proposes a Voice-bundling approach 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 and briefly addresses the complex head analysis of CENs, which cannot account for the Lithuanian pattern. 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 v head and some verbal layers that originate inside the v P domain including inner aspect and secondary imperfectivization, see Table 1. Thus, just like main verbal clauses, CENs have a full v P. However, CENs are deficient as far as the projections positioned above a v P 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	TP- v P
Inside v P	Causative <i>-in</i>	✓	✓
	Inner Aspect <i>iš-, nu-, su-, etc</i>	✓	✓
	Secondary Imperfectivization <i>-inė</i>	✓	✓
	Reflexive clitic <i>-si-</i>	✓	✓
Outside v P	Voice	✓	✓
	Habitual Aspect <i>dav-</i>	*	✓
	Continuative Aspect <i>be-</i>	*	✓
	Modal <i>te-</i>	*	✓

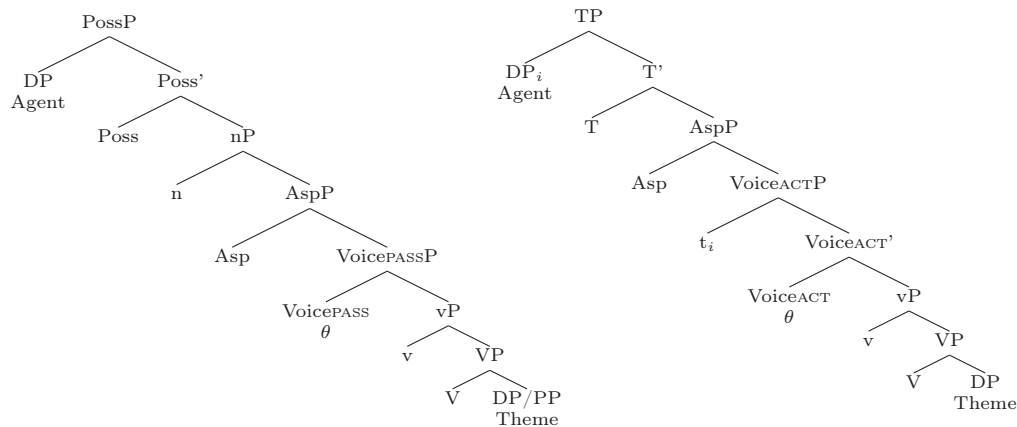
Table 1 Layers in CENs (with comparison to the verbal domain, TP- v P)

I start the investigation of nominalizations with a note on different types of nominals. Since the seminal work of Grimshaw 1990, three types of nominals can be distinguished: 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 (5c) that refer to the result of an event or a participant, and cannot take arguments (e.g., Borer 2003, 45, Alexiadou and Grimshaw 2008).

- (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*
- (Alexiadou and Grimshaw 2008, 2)

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) (for this approach e.g., Borer 1997, 2012, 2013; Roeper and van Hout 1999, 2009; Alexiadou 2001, 2017; Fu et al. 2001; Embick 2010; Bruening 2013). CENs consist of a *vP* layer with its arguments as well as VoiceP and AspP. Verbal clauses and CENs have a thematic Voice, which assigns an external argument θ -role as indicated 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, 2009, 2017). Instead, the agent is introduced in the specifier of a Poss(essor) phrase (e.g., Baker 2015; Wood 2021).

- (6) CEN according to Phrasal Layering Approach (7) Active Transitive



In Section 2.1, I show that Lithuanian nominalizations behave like canonical CENs. Then, in Sections 2.2 and 2.3, I flesh out the internal structure of these constructions. Lithuanian CENs are different from the structure provided in (6) in that they have an active thematic Voice with a projected agent, but lack an outer aspect and modality.

2.1 Lithuanian nominalizations as CENs

Recall that in Lithuanian nominalizations, the agent and the theme occur prenominaly 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’ (adapted from Pakerys 2006, 129)

Two readings are available in (8): in (i) *Petras* is interpreted as the agent of the deverbal noun ‘raising’ and in (ii) *Petras* is the possessor of the theme ‘rabbits’. As pointed out by Pakerys (2006) and Zaika (2016), nominalizations with two genitives are not very frequent in Lithuanian, which may be due to the availability of the two distinct readings. My consultants accept both readings in the relevant context. In this paper, I will focus on the complex event reading in (i). The reading in (ii) is not relevant here and will not be discussed in this paper. Attested examples of nominalizations with two genitives are provided in Appendix A.

Lithuanian nominalizations behave like CENs in that they do 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
 me-GEN.POSS car(M)-GEN.SG PFV-paint-NMLZ-NOM.M.SG within hour
 laiko] vis-us nustebin-o.
 time everyone-ACC.PL surprise-PST.3
 ‘My repainting of the car in one hour surprised everyone’

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 (11). 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.M.SG within hour time
 Intended ‘my repainting (of something) in one hour’

Further evidence for treating Lithuanian nominalizations as CENs comes from the presence of 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.’

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.

Svenonius 2004, 2008). They add a perfective or temporal meaning to the verb and have been argued to originate inside a *vP* as they can introduce a new argument to the structure or form an idiosyncratic meaning with the verb. The deverbal noun in the CEN takes the lexical prefix like *nu-* in (19), just like the corresponding verb in (18). This means that CENs contain a type of inner aspect that is associated with a *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). In the Slavic literature, this phenomenon is called secondary imperfectivization (e.g., Schuyt 1990; Romanova 2004; Svenonius 2004). I follow the existing literature on Slavic (see 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 biržoje] ekonomik-os ne-pakel-s.
 PFV-buy-IPFV-EP-NMLZ-NOM.SG market economy(F)-GEN.SG NEG-raise-FUT.3
 ‘Companies’ massive buying up of stocks in the market (repeatedly) won’t raise the economy.’

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) and is part of the lexical verb, 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 a *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).’

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.’

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

- (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 nustebin-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 The low verbal position of *-si-* can be observed in agent nominals as in (24) (see Zaika 2016 for discussion). Author (2020) demonstrates that Lithuanian agent nominals have a *v* head, but lack higher projections like VoiceP or AspP, and yet they do allow *-si-* (see Baker and Vinokurova 2009 for a similar proposal in Sakha and English). The presence of *-si-* in (23) is additional evidence for the *vP* layer 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 these constructions contain a verbal layer. Having reviewed the *vP* internal layers, I now turn to *vP* external layers.

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.

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; Sigurðsson 2012; Wood 2015 for Icelandic, see Author 2017 for Lithuanian).

2.3.1 Voice

A thematic Voice is a type of Voice that introduces an external argument θ -role (e.g., Kratzer 1996; Pylkkänen 2008; Schäfer 2008; Harley 2013, 2017; Legate 2014; Alexiadou et al. 2015) and assigns accusative case to a grammatical object (Legate 2014). VoiceP is often treated as a separate projection from a v P, which is responsible for the introduction of causative semantics. Various studies suggest that VoiceP in CENs is passive-like (Alexiadou 2001, 2009, 2017, also Bruening 2013 for a related proposal) in that it lacks a syntactically projected external argument in its specifier. I apply a battery of diagnostics from Bruening (2013) and Alexiadou et al. (2015), and show that CENs contain a nominal thematic Voice, which I will refer to as $n_{\text{voiceACT}P}$. I will argue in subsection 5.1 that this Voice is active i.e., has a projected agent.

AGENTIVE READING. The first argument for the thematic Voice in Lithuanian CENs is an obligatory agentive reading. Kratzer (1996) argues against the presence of VoiceP in English nominalizations because of the availability of a non-agentive reading in examples like (25) (also see Alexiadou 2001; Harley 2009; Embick 2021a; Wood 2021).⁶ (25) can be interpreted as Maria attended the reading instead of being the reader herself.

- (25) Maria’s reading of *Pride and Prejudice* received better reviews than Anna’s.
(Kratzer 1996, 128)

In contrast, the agentive interpretation in Lithuanian CENs is obligatory as (26) illustrates. (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 Shakespeare’s sonnets herself rather than evaluated the reading.⁷

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

- (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.

⁶Given that the agentive interpretation is not obligatory, Embick 2021a suggests that there is no agent-licensing head e.g., like a thematic Voice, or a type of [+Ag] feature which is associated with agentivity in CENs. Instead, some roots like $\sqrt{\text{DESTROY}}$ are encyclopedically agentive and that is enough for the possessor to be sometimes interpreted as an agent.

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.

INSTRUMENTALS. Lithuanian CENs also permit instruments which denote the tools that the agent used to perform an action as in (126). 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 Klaidėpa(F)-GEN.SG city(M)-GEN.SG
 puol-im-as **tank-ais** prasidėj-o sausio 27 diena...
 attack-NMLZ-NOM.M.SG tank(M)-INS.PL start-PST.3 January 27 day
 The Soviet Union's attacking of the city of Klaipėda with tanks started on January 27th...'⁸

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

- (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-us tiek jų
 with parent(M)-INS.PL be.PRS.3 important-NOM.M.SG 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) and (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. In contrast, *-ation* nominals allow both interpretations as in (29c) suggesting that they may lack a thematic VoiceP (Alexiadou et al. 2013; Alexiadou 2017; Wood 2021).

- (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

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

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

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-PRS.PASS.PTCP-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
 this-LOC.F.SG report(F)-LOC.SG be-PST.3 talk-PRS.PASS.PTCP-[-AGR] about
 labai sulėtėjusį vaik-ų registrav-im-ą.
 very 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: ‘The children registered themselves.’
 (ii) Theme ≠ Agent: ‘The children were being registered by someone.’

AGENT-ORIENTED ADJECTIVES. CENs forbid agent-oriented adverbials like *consciously* or *carefully*, which attach at the level of a verbal thematic VoiceP as in (32-34). In contrast, agent-oriented adjectives are allowed as in (33-35).

- (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 consciously 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’ conscious destruction of records surprised everyone.’
- (34) *[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.’
- (35) [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.’

¹⁰To express a *self*-action reading in nominalizations, the clitic *-si-* needs to be added, (i).

- (i) vaik-ų registrav-im-as-is
 child(M)-GEN.PL register-NMLZ-NOM.M.SG-REFL
 Lit. ‘children’s registration of themselves’

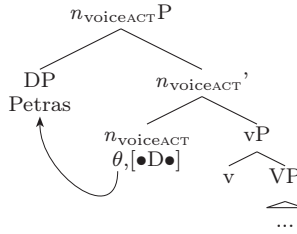
The fact that CENs are compatible with agent-oriented adjectives rather than adverbs indicates that this Voice is nominal rather than verbal. While agent-oriented adverbials are ungrammatical, adverbs like *loudly* which attach at the level of a *vP* and refer to the manner in which an action took place are possible, (36). I interpret this to mean that Lithuanian CENs have a full *vP* in their structure.

- (36) [Iev-os dažn-as knyg-ų skait-ym-as
Ieva(F)-GEN.SG frequent-NOM.MSG 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.'

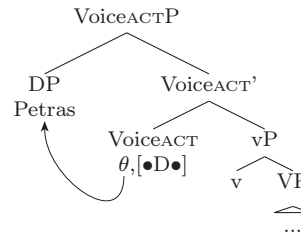
The evidence from the obligatory agentive reading, instrumentals, the *self*-action reading and comitatives suggests that CENs have a thematic Voice, which assigns an external argument θ -role. This Voice is nominal as it permits agent-oriented adjectives rather than adverbs. I assume that this function of Voice is encoded by $n_{\text{voiceACT}P}$ as in (38), which is stacked on top of the *vP*. Later, in section 5.1, I will argue for a Voice-bundling approach suggesting that this projection also nominalizes the verbal structure and thus, performs the function of an *n* head as well as Voice. When it comes to the properties of the Voice itself, the structure of CENs such (37a) is parallel to that of main verbal clauses as in (37b).

- (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.'

(38) CEN



(39) Active Verbal Clause



Both constructions have an active thematic Voice as in (38-39), which carries an external argument θ -role encoded by the θ -feature. The active transitive clause has a thematic subject, *Petras*, which is introduced in SpecVoiceACTP. 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 SpecVoiceACTP. Given that CENs also contain an agent DP, *Petras*, I suggest that, just like a thematic subject of transitives, this DP is merged in Spec $n_{\text{voiceACT}P}$, which bears the $[\bullet D \bullet]$ feature, and receives the θ -role from n_{voiceACT} . It has been claimed that CENs have a passive-like VoiceP that lacks an agent (Alexiadou 2001, 2009, 2017). Anticipating the discussion in subsection 5.1, I will argue that Lithuanian CENs do not contain a passive Voice as they disallow passive morphology and *by*-phrases, which are the properties of passives.

2.3.2 Outer Aspect

Affixes that are reflections of aspectual projections above a *vP* layer are absent in Lithuanian CENs. The first piece of evidence comes from the suffix *-dav*. This suffix encodes a habitual iterative aspect as in (40) (Sližienė 1995, 224; Sakurai 2015; Pakerys 2017). Author 2020 shows that *-dav* is a realization of an outer aspect that is above a *vP* because, unlike lexical prefixes (see section 2.2.2), *dav-* does not affect argument structure nor can it form an idiomatic meaning together with the verb. Furthermore, in passives, *-dav* attaches to the auxiliary, but not the passive participle (41).

- (40) Aš dažy-**dav**-au tvor-as.
 I.NOM paint-HAB-PST.1SG fence(F)-ACC.PL
 ‘I used to paint fences.’ Active
- (41) Tvor-os bū-**dav**-o man-o
 fence(F)-NOM.PL be-HAB-PST.3 me-GEN.POSS
 dažo-m-(***dav**)-os
 paint-PAST.PASS.PTCP-HAB-NOM.F.PL
 ‘The fences used to be painted by me.’ Passive

(42) 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.

- (42) 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

The second piece of evidence comes from the super-lexical prefix *be-*. Super-lexical prefixes stack outside lexical prefixes, add a transparent aspectual-like meaning to a predicate, and thus originate above a *vP* (e.g., Svenonius 2004; Romanova 2004 for Slavic, Korostenskienė 2017a,b for the Lithuanian *be-*).¹¹ *Be-* can have a continuative, progressive meaning: it introduces an ongoing background situation during which some event takes place as in (43) (for discussion of various functions of *be-* see Sližienė 1995, 227-228; Arkadiev 2011; Korostenskienė 2017a).

¹¹ (i) provides a template of Lithuanian lexical and super-lexical prefixes (see Arkadiev 2011, Author 2018, Korostenskienė 2017a,b). The super-lexical prefix *be-* will always precede lexical prefixes like *pa-* (see section 2.2.2 for lexical prefixes), and the reflexive clitic *-si-* as in (ii). The prefix *be-* is preceded by another super-lexical prefix *te-* which has a permissive and/or restrictive meaning (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)

- (43) **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

The type of aspect encoded by *be-* is incompatible with CENs as in (44). This constitutes evidence that outer aspect is absent in CENs.

- (44) *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; Korostenskienė 2017b,a; see footnote 11). *Te-* can add a permissive meaning to the verb, and has been viewed as a modal affix (Holvoet 2021; Korostenskienė 2017b, also see Arkadiev 2010 for other functions of *te-*). Permissive forms with *te-* occur with 3rd person future and present verbal forms, see (45).

- (45) 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)

(46) shows that *te-* cannot be part of a deverbal noun. Thus, CENs lack modal projections that could otherwise be found in a verbal clause. This is consistent with the already made observation that CENs lack *vP* external layers.

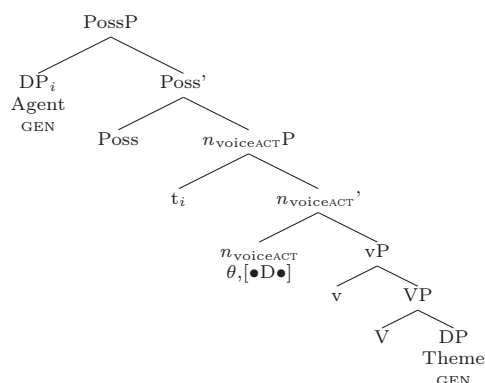
- (46) *[Iev-os avokad-ų **te**-aug-in-im-as] geruoju
 Ieva(F)-GEN.SG avocado(M)-GEN.PL PRM-grow-CAUS-NMLZ-NOM.M.SG well
 ne-si-baig-ė.
 NE-REFL-end-PST.3
 Lit. ‘Letting Ieva growing of avocados didn’t end up well.’

2.4 Interim Summary

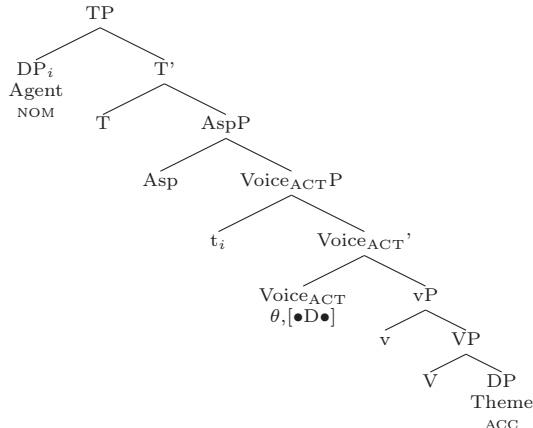
In this section, I have explored the properties of Lithuanian nominalizations and identified different layers present in the structure of these constructions and main verbal clauses. I have provided evidence in favor of treating Lithuanian nominalizations as CENs in the sense of Grimshaw 1990. Lithuanian 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 (47) and (48).

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

(47) Lithuanian CENs



(48) Active Verbal Clause



Both constructions have a *vP* which can host inner aspect and secondary imperfectivization.¹³ Thus, Lithuanian CENs support the phrasal layering approach according to which the *n* head nominalizes at least a full *vP* (e.g., see Borer 2013; Roeper and van Hout 2009; Alexiadou 2001, 2017; Fu et al. 2001; Embick 2010). Both constructions have an active thematic Voice, n_{voiceACT} in (47) and $\text{Voice}_{\text{ACT}}$ in (48), which assigns an external argument θ -role to the DP in its specifier. The type of Voice present in CENs is nominal rather than verbal. In subsection 5.1, I will show that n_{voiceACT} resists passivization and provide arguments for a Voice-bundling approach.

As far as other projections go, outer aspect, namely the *AspP*, is present in verbal clauses, but absent in CENs as illustrated in (47). Furthermore, while verbal clauses can have *ModP* (not included in the tree), CENs cannot.¹⁴ Lastly, I follow a rich literature on nominalizations and assume that the CEN is crowned by the Possessor Phrase (Baker 2015; Wood 2021, also see e.g., Abney 1987; Alexiadou et al. 2007 for earlier instantiations of this proposal). I suggest that the agent in CENs raises to *SpecPossP* whereas in verbal clauses it raises to *SpecTP*.

¹³The two aspects are not illustrated in the tree. For various analyses on how to encode them within a *vP* see e.g., Babko-Malaya 1999; Di Sciullo and Slabakova 2005; Korostenskienė 2017b; Romanova 2004; Svenonius 2004, 2008.

¹⁴Note that negation, which is expressed by the prefix *ne-*, has been reported to occur in nominalizations (see Pakerys 2006; Arkadiev 2016). However, *ne-* can occur with nominals that lack a theme argument, and thus do not fall under the category of CENs as (i) illustrates. The admissibility of *ne-* in (i) suggests that *ne-* is not associated with a complex verbal structure. Therefore, I tentatively suggest that *ne-* originates inside a *vP* in CENs.

- (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)

3 Structural Case and Movement in CENs

In this section, I establish the distinction between structural and non-structural case in CENs. Genitive case in CENs has been treated as a structural case (Yip et al. 1987; Marantz 1991; Baby 1997; Alexiadou 2001; Baker 2015; Smirnova and Jackendoff 2017). I compare the behavior of internal arguments with structural case and those with non-structural case in CENs and demonstrate that genitive case assigned to the theme argument of transitive predicates in CENs is not only structural case, but one, which can only be assigned under A-movement (for movement in the nominal domain see Cardinaletti 1998; Delsing 1998; Brattico and Leinonen 2009). In Lithuanian verbal clauses, the theme grammatical object receives structural accusative case from the thematic Voice_{ACT} in situ (Author 2020, 2021a, 2021b). I propose that in CENs, the theme argument also receives a structural case, which is genitive. I treat this genitive as a structural object case, which, just like in verbal clauses, is assigned by a thematic Voice, namely $n_{\text{VoiceACT}}P$. I suggest that this case is assigned under movement to $\text{Spec}n_{\text{VoiceACT}}P$. This provides important evidence that case assignment under movement may vary within domains in a single language. The distinction established between structural case and non-structural case in CENs 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 of verbal clauses. In verbal clauses, Lithuanian exhibits a nominative-accusative case pattern. The basic word is SVO: the theme grammatical object follows the verb as in (49) (see Ambrazas et al. 1997, 690-692). In contrast, the theme that typically bears structural accusative in the verbal clause in (49) becomes genitive in CENs and precedes the deverbal noun as in (50-51).

- (49) Petr-as aug-in-o **triuši-us**
 Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
 ‘Petras was raising rabbits.’
- (50) 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)
- (51) *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
 ‘Petras’ raising of rabbits’

The theme in (50) 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 (52).¹⁵ In verbal clauses, the PP follows the

¹⁵For a full list of prepositions see Ambrazas et al. 1997, 407.

predicate. In CENs, the PP also follows the deverbal noun as in (53). In discourse neutral situations, PP cannot precede the deverbal noun as in (54). In contrast, the genitive theme in (50) 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.

- (52) 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.’
- (53) 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’
- (54) *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
 ‘Mother’s frequent shouting at the children’

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 (e.g., Woolford 2006; Pesetsky and Torrego 2011). The inherent case of an internal argument is usually determined within a *v*P and retained. In section 2, I have established that Lithuanian CENs contain a *v*P. Given this structure, we predict that inherent case patterns should be retained in CENs. Indeed, this prediction is borne out.

Author (2020) shows that Lithuanian *serve*-class predicates like *tarnauti* ‘to serve’ take an internal argument with inherent dative. Unlike the theme with structural accusative case, this dative DP is preserved under passivization as in (56-57) (see Authors 2018), which is a property of a non-structural case. Author (2020) argues that this dative is assigned by an Appl(icative) head along with a θ -role.

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

In CENs, the dative DP is retained and follows the deverbal noun as in (58) (also see Pakerys 2009; Vladarskienė 2010; Zaika 2016). This DP cannot appear to the left of the deverbal noun (59). Genitive case cannot be assigned to this argument regardless of its position in the CEN (58-59). The fact that genitive occurs in a place of structural

accusative in (50), but does not appear in the situations where inherent dative is assigned indicates that this genitive is a structural case. The assignment of this genitive is tied to movement: DPs with an inherent case occur postnominally whereas DPs with structural genitive occur prenominally.

- (58) 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’
- (59) *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 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 argument and an accusative theme as in (60). The dative in (60) is a type of inherent case assigned by an ApplP (Authors 2018; Author 2020).¹⁶ 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. This pattern confirms that the assignment of genitive to the theme is restricted to prenominal position.¹⁷

- (60) 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.
 evidence(M)-ACC.PL
 ‘Marija gave police false evidence.’
- (61) [Marij-os melaging-ų parodym-ų **dav-im-as**
 Marija(F)-GEN.SG false-GEN.M.PL evidence(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 false evidence to police didn’t end up well.’

To sum up, DP objects which typically bear structural accusative 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 of transitive predicates in CENs is structural case (for similar proposals see Yip et al. 1987; Marantz 1991; Baby 1997; Alexiadou 2001; Baker 2015; Smirnova and Jackendoff 2017), which is assigned under A-movement (for movement in the nominal domain see Cardinaletti 1998; Delsing 1998; Brattico and Leinonen 2009).

3.2 Case Assignment

I assume that case is assigned in syntax by an X^0 (see e.g., Vergnaud 1977/2008; Chomsky 1981; Chomsky 1995b; Legate 2008). Structural accusative case is assigned

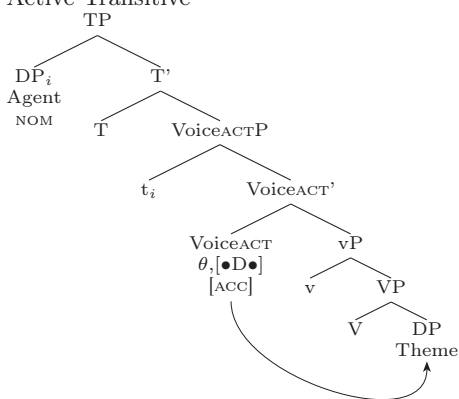
¹⁶This dative behaves like the dative found with *serve*-class predicates in (56-57): it must be retained in passives (see Authors 2018, Author 2020).

¹⁷For examples with CENs with other non-structural cases like instrumental see Section 6.

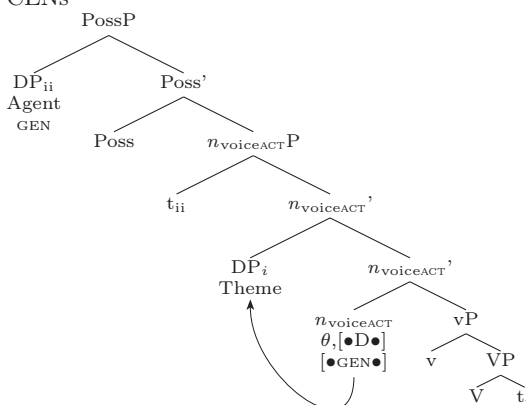
to a theme grammatical object by an active thematic Voice (see e.g., Legate 2014), which has also been extensively argued for Lithuanian (Author 2020, 2021, in press). I adopt this approach here and suggest that in the active verbal clause in (62a) the theme receives a structural object case, namely the accusative, from a VoiceACT head, which is encoded by the ACC feature in (63).

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

(63) Active Transitive



(64) CENs



CENs of transitive predicates contain a *v*P with the theme object as its complement as in (64). In CENs, the theme bears structural genitive case whereas in the verbal clause it is marked with structural accusative. In order for the theme to receive genitive case in CENs, it must move to prenominal position. Case assignment under movement is found with nominative subjects in verbal clauses 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 suggest that just like in verbal clauses, the structural case in the nominal domain is assigned to the theme by an active thematic Voice, namely n_{voiceACT} . Nevertheless, this head bears $[\bullet\text{GEN}\bullet]$ 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 type of analysis is plausible if we assume that ‘tucking in’ derivations are possible (e.g., see McGinnis 1998; Richards 1999). Under this approach, the genitive assigned to the theme is treated like a structural object case analogous to structural accusative assigned by an active Voice. In the next section, I provide extensive argumentation from pronominal forms, which morphologically distinguish two types of genitives, showing that the theme object in CENs indeed bears a type of

¹⁸I assume that the features on functional heads come in order (see Heck and Müller 2003, also see 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 SpecVoiceACTP and receive case.

a structural case that is strictly assigned to grammatical objects whereas the agent is assigned a type of structural genitive that is analogous to nominative case.

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 there are two syntactically distinct structural genitives in CENs whose distribution is equivalent to a nominative-accusative case pattern found in verbal clauses. This empirical discovery is important for a couple of reasons. First, while CENs in a number of languages exhibit an ergative case pattern (e.g., Alexiadou 2001, 2017), the Lithuanian data demonstrates that this is not a universal. Second, it shows that genitive in the nominal domain cannot be viewed as unmarked case as generally assumed in Dependent Case Theory (see Baker 2015; Alexiadou 2017; Norris 2018).

In the literature, CENs are treated as defective: they typically have only one DP argument that bears structural case (Alexiadou 2001; Smirnova and Jackendoff 2017). This defectiveness has been attributed to the fact that CENs have a non-canonical, passive-like Voice¹⁹ that lacks a projected external argument (Alexiadou 2017). As a result, CENs exhibit an ergative case pattern where a single argument of intransitive predicates as well as a 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).

Lithuanian CENs provide a counter-example to this pattern. I identify two types of cases in CENs: i) possessive genitive 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 which is a type of structural object case assigned to the theme of transitives, and thus is analogous to structural accusative in an active transitive clause. 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.

The distinction between these cases is important for approaches like Dependent Case 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.

Furthermore, this study contributes to the typological literature in important ways. 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 case pattern is not possible in Lithuanian CENs.

When it comes to nouns, the possessive genitive and the non-possessive one are morphologically syncretic as in (65). Regardless of whether the noun *triušiai* 'rabbits' appears as a theme (65a-65c) or as an agent (65b), the phonological exponent of genitive will always be the same ending i.e., *-ų*. Nevertheless, pronominal forms show a morphological distinction between the two cases. In subsection 4.1, I investigate the two

¹⁹Alternatively, it could be argued that CENs contain a defective *v* (see 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.

genitives in different constructions across the language. In subsection 4.2, I examine how these two genitives behave in CENs.

- (65) a. Petr-o triušī-**ŭ** aug-in-im-as
 Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.SG
 ‘Petras’ raising of rabbits’
- b. triušī-**ŭ** bég-im-as
 rabbit(M)-PL.GEN run-NMLZ-NOM.SG
 ‘rabbits’ running’
- c. triušī-**ŭ** krit-im-as
 rabbit(M)-PL.GEN fall-NMLZ-NOM.SG
 ‘rabbits’ falling’

4.1 Two genitives across different constructions

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

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 (66)(Ambrazas et al. 1997, 192).

- (66) **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 (67), the thematic subject is genitive, the grammatical object is nominative, and the verb takes passive morphology.²⁰ As noted by Ambrazas 2004, the subject is marked with GEN.POSS case and GEN.NPOSS case is ungrammatical. GEN.POSS is not assigned along with a specific θ -role like a non-structural case: GEN.POSS is realized with a thematic subject of transitives (67) and unergatives (68), as well as a grammatical subject of unaccusatives (69).

²⁰For arguments showing that this construction is not a passive see Geniušienė 2006; Lavine 2006, 2010, 2021; Spraunienė et al. 2015, Authors 2020, Author 2020.

- (72) 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 (73) (Ambrasas et al. 1997, 192). Unlike the genitive in (72), 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.

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

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 (see Authors to appear).²⁵ The object must bear GEN.NPOSS (Ambrasas et al. 1997, 192), GEN.POSS is ungrammatical as in (74).

- (74) 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.

- (75) Senel-ė papraš-ė **tav-ęs**/*tav-o
 grandmother(F)-NOM.SG ask-PST.3 you-GEN.NPOSS/you-GEN.POSS
 vand-ens.
 water(M)-GEN.SG
 ‘Grandmother 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 (76).

- (76) 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.’

precedes new information (see Mathiassen 1996, 236-242, Ambrasas 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 object that is a personal pronoun raises to the edge of a *vP* as proposed for object shift in other languages e.g., see Chomsky 2001.

²⁵Lithuanian genitive of negation differs from Russian genitive of negation. The genitive of negation in Lithuanian is assigned to the object that would typically bear accusative case, it cannot be applied to nominative subjects of canonical unaccusative predicates like *die* whereas in Russian it can be realized on the theme argument of unaccusatives (Pesetsky 1982).

The distribution of the two types of genitives is summarized in Table 3. The 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 assigned to 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-ēs</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) observes that in nominals, 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 (78). It is ungrammatical for the agent to bear GEN.NPOSS as in (79). 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 is a type of structural case. See Appendix B for attested examples.²⁶

- (77) Tu mane palaik-ei daugybę metų.
 you.NOM me.ACC support-PST.2SG many years
 'You supported me for many years.'
- (78) [Tav-o man-ēs 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.'

²⁶The theme in (78) 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 that we see with the theme in (78), also see subsection 3.1.

- (i) Mam-a dažn-ai ant tav-ēs 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-ēs
 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-ēs rėk-im-as
 frequent-NOM.M.SG mother(F)-GEN.SG on you-GEN.NPOSS shout-NMLZ-NOM.M.SG

- (79) *[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.’ (Adapted
 from Pakerys 2006, 138)

GEN.POSS case cannot mark both the agent and the theme in CENs as in (80). Koptjevskaja-Tamm (2003) claims that Lithuanian nominalizations exhibit a double possessive pattern and ‘multiple genitives do not appear in structurally different positions’ (p. 734). (80) counterexamples her claim as two DPs with GEN.POSS yield ungrammaticality. Furthermore, GEN.NPOSS case cannot occur with both the agent and the theme as in (81). These facts suggest that the two genitives in CENs are structurally distinct cases. The realization 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.

- (80) *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’
- (81) *Tav-ęs man-ęs palaik-ym-as daugybę metų
 you-GEN.NPOSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years
 ‘Your support of me for many years’

The fact that GEN.NPOSS case is assigned to the theme object in CENs is also confirmed by (82). (82) has a single overt DP argument with GEN.NPOSS, which is interpreted as a theme rather than an agent. I assume that examples like (82) are transitive constructions: they have a syntactically projected null external argument and an overt theme object marked with GEN.NPOSS, see subsection 5.1 for argumentation.

- (82) [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 CEN has one overt DP with GEN.POSS case, then that DP can be interpreted as an agent (Pakerys 2006), as in (83)-(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 subsection 2.1), thus the construction in (83) with the agentive reading is not a CEN. Pakerys (2006) notes that the DP with GEN.POSS can be also interpreted as a theme in (83)-(ii). 6 out of 8 consultants favour the agent reading over the theme reading as indicated in (83)-(ii).²⁷

²⁷For 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 as in e.g., **Rome’s destruction in two hours*. These instances are considered to be simple event nominals, which lack a full argument structure: they do not have an internal

- (83) [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

In CENs with unergative predicates, the agent is assigned GEN.POSS case rather than GEN.NPOSS case as in (84). This is expected given that in CENs with transitive predicates, the external argument is also realized in GEN.POSS.

- (84) [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 (85).²⁸ This sharply contrasts with the theme of CENs with transitive predicates, which bears GEN.NPOSS case. This contrast indicates that GEN.POSS case is assigned to 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.

- (85) [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 the findings. The GEN.POSS case in CENs behaves like a structural nominative case in verbal clauses, recall (70), in that it is assigned to the highest available argument: the thematic subject of transitives and unergatives as well as the theme of unaccusatives. GEN.POSS can be assigned to both agents and themes meaning that it is not related to a specific θ -role. Thus, GEN.POSS cannot be treated like

argument (Borer 2003; Alexiadou 2009). Thus, *Rome* is base-generated in PossP above nP. The same pattern holds in Lithuanian. The example in (i) includes a telic modifier and has the type of reading which favors a theme interpretation of the DP marked with GEN.POSS and yet (i) is ungrammatical.

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

- (i) *Nepaisant įvairių nesėkmių, [toks neįtikėtinas tav-o palaik-ym-as
 regardless various failures such incredible you-GEN.POSS support-NMLZ-NOM.SG
 visus šiuos metus] padėj-o tau tobulė-ti.
 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.’

²⁸Grimshaw (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 (85).

a type of non-structural case, which is typically assigned thematically. The behavior of GEN.POSS in CENs is also consistent with the case pattern observed in the evidential where GEN.POSS is also assigned to the most prominent argument (see subsection 4.1).

Type of DP	CENs	TP- <i>v</i> P
Agent of transitives		
Agent of unergatives	<i>tavo</i> - <i>you</i> .GEN.POSS	NOM
Theme of unaccusatives		
Theme of transitives	<i>tavęs</i> - <i>you</i> .GEN.NPOSS	ACC

Table 4 Case marking in CENs and finite verbal clauses

GEN.NPOSS is realized on the theme of transitive predicates which in verbal clauses is assigned structural accusative case as in (77-79) repeated in (86). Therefore, this case patterns like a structural object case that is assigned to a grammatical object. Observe that the DP with GEN.NPOSS precedes the deverbal noun.

- (86) a. Tu mane palaik-ei daugybę metų.
 you.NOM me.ACC support-PST.2SG many years
 ‘You supported me for many years.’
- b. 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 (86b) 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 (87).²⁹ The internal argument cannot be marked with GEN.NPOSS case, which is predicted if GEN.NPOSS in (86a) is a type of structural case. Furthermore, the DP with GEN.NPOSS case occurs prenominally whereas the DP marked with inherent case occurs postnominally. This indicates that inherent case is assigned in situ whereas GEN.NPOSS case is assigned under A-movement to prenominal position (also see subsection 3.1).

- (87) 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.’

²⁹Regardless of whether the pronominal object bears structural case, recall (77), or non-structural case (87a), it will precede the verb resulting in SOV word order in verbal clauses. This object shift is motivated by information structure (see footnote 24 for discussion). In contrast, CENs with pronominal forms show a different word order pattern: if the pronominal object is marked with a structural case, it precedes the deverbal noun, thus undergoes movement. If the pronominal object is marked with a non-structural case, it stays in situ, postnominally, see (87b). In CENs, the movement of the object is based on case assignment whereas in verbal clauses it is not.

- 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 a structural case comes from predicates like *kaltinti* 'to blame' with two internal arguments, one marked with accusative and another one with instrumental as in (88). The DP theme with accusative appears in GEN.NPOSS in the CEN and the agent is in GEN.POSS as in (89). Both DPs precede the deverbal noun. The DP with non-structural case, namely instrumental, retains its case and follows the deverbal noun, as expected.

- (88) 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.'
- (89) [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 labai erz-in-o.
imaginary-INS.M.PL crime(M)-INS.PL everyone-ACC very annoy-PST.3
'My blaming of you for unprecedented crimes made every nervous.'

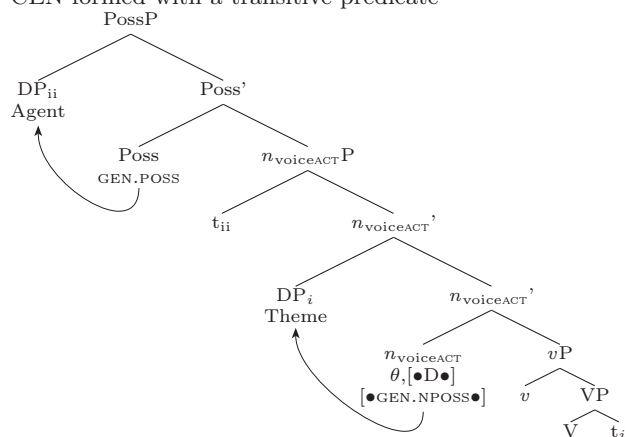
All in all, the two genitives found in CENs are two distinct structural cases and their distribution, see Table (4), is equivalent to a nominative-accusative case pattern found in verbal clauses. Lithuanian CENs do not exhibit an ergative case pattern, which has been identified in nominalizations in other languages (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). In Greek, CENs have been argued to display an ergative marking. In (90), the theme argument 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 different case marking, in this case in a PP. However, this type of case marking is impossible in Lithuanian CENs.

- (90) *Greek*
- a. i katastrofi 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'
- b. i afiksi ton pedion
the arrive the children. GEN
'the children's arrival'
- c. to treksimo tu athliti
the running the athlete. GEN
'the athlete's running'
- (Adapted from Alexiadou 2017, 256)

4.3 Case Assignment

CENs have two syntactically distinct cases that are morphologically syncretic when it comes to nouns (see section 3), but appear in different morphological forms when it comes to pronouns. Given that GEN.POSS behaves like the structural nominative whereas GEN.NPOSS behaves like the structural accusative, I suggest that the case assignment in the CEN in (91) takes place in a parallel manner to the case assignment in the verbal domain.

(91) CEN formed with a transitive predicate



In the active verbal clause, the highest available argument raises to SpecTP position and receives nominative case from T. In CENs, I propose that the highest available argument raises to SpecPossP and receives GEN.POSS case from the Poss head as indicated in (91) (see Baker 2015 for this type of case assignment in the nominal domain). GEN.NPOSS is realized on the theme of transitive predicates which in verbal clauses is assigned structural accusative. Therefore, this case patterns like a structural object case that is assigned to a grammatical object. In main verbal clauses, structural accusative case is assigned by a thematic Voice head. In CENs, the structural object case, namely GEN.NPOSS, is assigned by n_{VoiceACT} as in (91) (also see subsection 3.2).³⁰ This case assignment takes place under movement to prenominal position which is encoded by the $[\bullet\text{GEN.NPOSS}\bullet]$ feature.

The identification of two distinct structural genitives provides important insights for Dependent Case 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 has been viewed as unmarked case in CENs (Baker 2015; Alexiadou 2017; Norris 2018) and the relevant domains for case determination have been argued

³⁰Under this approach, structural object case has two distinct morphological realizations: i) GEN.NPOSS in the nominal domain and ii) accusative in the verbal domain. As extensively argued by Authors to appear, it is possible for structural object case to have distinct morphological realizations in Lithuanian. Also see Spencer 2006 for a similar observation in Chuckchee where syntactic ergative case can be realized as a morphological locative or as morphological instrumental case.

to be the nP and DP layers (Baker 2015; Alexiadou 2017). Baker 2015 suggests that in CENs with two genitives in languages like Japanese or Tamil both cases are unmarked. They are determined in different spell-out domains: the theme receives the unmarked genitive in one spell out, namely the nP domain, whereas the agent gets its unmarked genitive in the DP domain.

However, Baker’s analysis is not applicable to Lithuanian CENs. Under this view, the two genitives in Lithuanian would be viewed as unmarked cases realized in two distinct domains. In other words, both GEN.POSS and GEN.NPOSS would be viewed as one and the same type of case. But the established pattern demonstrates that the two genitives are two syntactically distinct cases. Instead, the Lithuanian facts could be interpreted as follows. GEN.POSS is a type of unmarked case whereas GEN.NPOSS is a type of dependent case. Specifically, we could say that in the nominal domain, the dependent case is GEN.NPOSS whereas in the verbal domain, it is accusative.

To sum up, so far I have argued for the phrasal layering approach suggesting that Lithuanian CENs contain a vP 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.

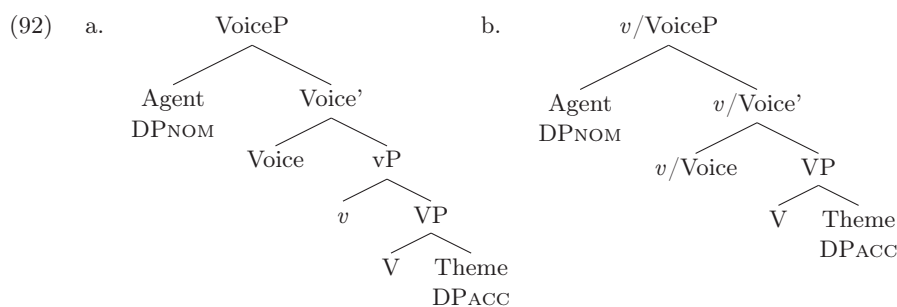
5 Voice bundling

In this section, I argue for the Voice-bundling approach: CENs contain an $n_{\text{voiceACT}}P$ above a vP , 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.

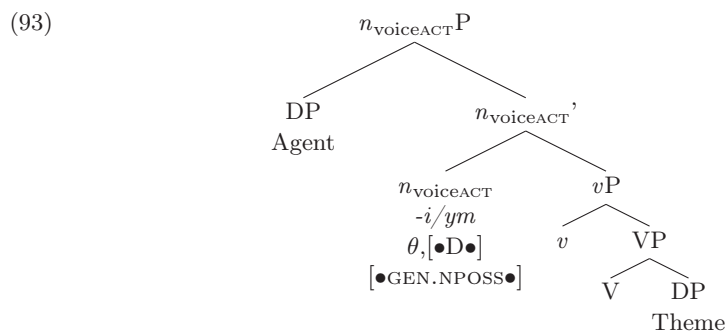
5.1 Voice Bundling

A Voice-bundling parameter was introduced by Pytkänen (2002, 2008). Some languages e.g., Finnish (Pytkänen 2008), Hiaki (Harley 2013) or Acehnese (Legate 2014), are Voice-splitting: they have separate vP and VoiceP projections as in (92a).³¹ As was mentioned in subsection 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; Pytkänen 2008; Alexiadou et al. 2015; Harley 2013; Legate 2014) In this group of languages, Voice and v function independently of each other, and should be encoded by different morphemes. In Voice-bundling languages like Chol (Coon and Preminger 2012), Persian (Folli et al. 2005) or Italian (Folli and Harley 2005, 2007), we find a single v /Voice projection as in (92b) (also see Harley 2017 for discussion). 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 a v /Voice head should be realized by a single morphological element rather than two distinct elements.

³¹As mentioned by Harley 2017, the fact 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, see e.g., Thráinsson 1996; Bobaljik and Thráinsson 1998; Conradie 2007.



Author 2020, 2021a, 2021b argues that *v*P 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 (93)³² (see Punske 2010, 2012 for a similar approach), which is the type of head that is listed in the lexicon. This study provides novel evidence showing that Voice-bundling is possible in the nominal domain. Identifying this type of dichotomy enriches the typology of Voice in important ways by demonstrating that Voice-bundling can be crosscategorical (contra H. Á Sigurðsson 2009).



In subsection 2.3.1, it was demonstrated 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 encoded 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 the characteristics parallel to those of an active transitive construction with a nominative-accusative marking. In the verbal domain in Lithuanian, the introduction of the agent and the assignment of a structural object case to the theme are performed by an active thematic Voice (Author 2020 2021a, 2021b). 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

³²The tree in (93) is a simplified version that does not include movement.

$\text{Spec}n_{\text{voiceACT}}\text{P}$ (see section 2).³³ Furthermore, this head also assigns a grammatical object case to the theme argument (see sections 3 and 4).

Under this approach, $n_{\text{voiceACT}}\text{P}$ bears the properties of an active Voice. However, Grimshaw 1990 claims that CENs behave like passives in that they suppress the external argument. Indeed, 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, see Bruening 2013 for a related proposal). However, 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, is predicted under 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 that is distinct from n , then we should be able to see a morphological reflection of it. Passive morphology is typically a reflection of a thematic Voice. Passive morphology in CENs is attested across languages e.g., Turkish (Comrie 1976), Serbian (Bašić 2010). The passive morphology in Lithuanian is encoded by the $-m/-t$ suffixes as in (94).³⁴ These suffixes are ungrammatical in CENs as in (95). CENs lack Voice morphology, and therefore exclude a type of VoiceP that is realized separately from an $n\text{P}$.

- (94) *Triušiai buv-o aug-in-t-i*
 rabbit(M)-NOM.PL be-PST.3 grow-CAUS-PST.PASS.PTCP-NOM.M.PL
Petr-o
 Petras(M)-GEN.SG
 ‘The rabbits were raised by Petras.’ Passive
- (95) *Petr-o triušiu*
 Petras(M)-GEN.SG rabbit(M)-GEN.PL
 aug-in-(*t)-im-as
 grow-CAUS-PST.PASS.PTCP-NMLZ-NOM.SG
 ‘Petras’ raising of rabbits’ CENs

The second argument for my proposal comes from CENs’ inability to undergo passivization. In order to understand this argument, let us take a look at Persian, a Voice-bundling language. If the functions of v (in our case n) and Voice are subsumed under one projection, then these functions ‘should appear and disappear together’ (Harley 2017, 4). In Persian, a v head performs the functions of v and Voice, and is a reflection of a light verb. This head cannot participate in passives that require the demotion of an agent (Folli et al. 2005; Harley 2017). In other words, if one of the functions of v e.g., the introduction of an agent, disappears, then this light verb *dādan* ‘to give’ (96a) is replaced by a different light verb *xordan* ‘to collide’ as in (96b), which expresses a passive-like meaning. Harley (2017) predicts that if a language lacks a separate Voice projection, then this language will not exhibit a true passive. This holds true for Italian whose light verbs encode the functions of Voice and v , and consequently cannot be passivized (see Folli and Harley 2007, 2013, also Harley 2017).

³³Tying agentive semantics to a projection that also has nominal properties has been proposed previously e.g., Baker and Vinokurova 2009 suggest that in agent nominals, a nominalizing n head encodes agentivity.

³⁴Ambrzas (1978) notes that historically the passive morpheme, $-m/-t$, used to be a nominalizing, deverbal suffix.

(96) *Persian*

- a. tim-e mâ unâ-ro shekast dâd
 team-EZ we they-râ defeat gave
 ‘Our team defeated them.’
- b. tim-e mâ az unâ shekast xord
 team-EZ we of they defeat collided
 ‘Our team was defeated by them.’
 Lit-ish: ‘Our team encountered defeat from them.’ (Harley 2017, 7-8)

Evidence from case marking demonstrates that Lithuanian CENs disallow passivization. In Lithuanian passives, the theme is promoted to a nominative subject and the agent is demoted to an adjunct marked with GEN.POSS as in (97).

- (97) a. Tu mane palaik-ei.
 You.NOM me.ACC support-PST.2SG
 ‘You supported me.’ Active
- b. Aš buv-au tav-o palaiko-m-as.
 I.NOM be-PST.1.SG you-GEN.POSS support-PST.PASS.PTCP-NOM.M.SG
 I was supported by you.’ Passive

If CENs were compatible with a passive Voice, then the agent would be demoted and realized as an optional *by*-phrase marked with GEN.POSS. The theme would become the highest available argument, and therefore it should be also assigned GEN.POSS (recall Table 4). However, this pattern is ungrammatical, (98a-98b). The examples in (98a-98b) include two positions for the agent: a postnominal position and a prenominal one. These findings suggest that Lithuanian CENs lack a passive Voice, which otherwise should be available if VoiceP and *n*P were separate projections.

- (98) 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 main verbal clauses without a *by*-phrase, the agent is not syntactically projected e.g., it cannot bind anaphors or control (Bruening 2013; Legate 2014; Authors 2020, for an extensive discussion of Lithuanian passives 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, also see Borer 2020). Lithuanian CENs lend support to this observation. Unlike passives, they have a null projected agent.

CENs have the properties of a 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 signalled by the agent’s ability to bind the reflexive nonpossessive subject-oriented anaphor *sau* in adjunct position as in (99).³⁵ The theme functions like a grammatical object in that it bears a grammatical object case, namely GEN.NPOSS.

³⁵For arguments showing that these reflexive anaphors are not logophors see Author 2020.

- (99) [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] man yra nepriimtas.
 benefit self.DAT me.DAT be.PRS.3 unacceptable
 ‘Such support of me due to reasons that are beneficial for yourself/oneself is acceptable to me.’

The implicit argument also binds the reflexive subject-oriented anaphor, which is a theme grammatical object, as in (100). If the null agent can bind, then it means that it is syntactically active, and therefore projected in the structure. The theme appears in GEN.NPOSS as expected.

- (100) [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 a reflexive possessive form *savo* functioning like a modifier of a noun e.g., *country* in (101). The null agent binds the possessive anaphor, and therefore is part of the syntactic structure of the CEN.

- (101) [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 labai 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 (102).

- (102) [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. Under 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} .

The last argument for the Voice-bundling analysis is based on the lack of projections like a high AspP that are found between $n\text{P}$ and VoiceP in Voice-splitting languages. Let us first take a look at the verbal domain. In Voice-splitting languages, it is common

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

to find projections that intervene between VoiceP and *v*P (Pylkkänen 2008; Harley 2013). For example, a high applicative phrase (ApplP) in Hiaki hosts an applied argument. As argued by Harley 2013, the applied argument e.g., *the child* in (103), is the highest internal argument: it originates above *v*P, which hosts the theme argument, and below VoiceP, which hosts the external argument. This projection takes a *v*P as its complement and is itself a complement of Voice, which is possible if VoiceP and *v*P are separate projections (Harley 2017; McGinnis 1998, 2001; Pylkkänen 2008).

- (103) Maria uusi-ta aa ham-ta-ria-k
 Maria child.ACC 3SG.ACC break-TR-APPL-PRF
 ‘Maria broke it for the child.’ Hiaki (Harley 2017, 12)

Turning to the nominal domain, typically, the *n* head can attach at different levels e.g., Voice-splitting languages, the *n* head can attach as high as AspP, which is above VoiceP (see e.g., Alexiadou 2017). In Lithuanian CENs, the *v*P-external layers that are above Voice like a higher AspP or a ModP are absent from CENs as was argued in subsections 2.3.2 and 2.3.3. This is consistent with the Voice-bundling approach. If a higher AspP were present, it would be below $n_{\text{voice}_{\text{ACT}}}$ P and above a *v*P in Lithuanian. 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, recall that the *dav-* prefix, which stands for the higher AspP, attaches to the auxiliary and originates higher than the passive morphology associated with Voice, which appears on the lexical verb as in (41), repeated here in (104).

- (104) Automobili-ai bū-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

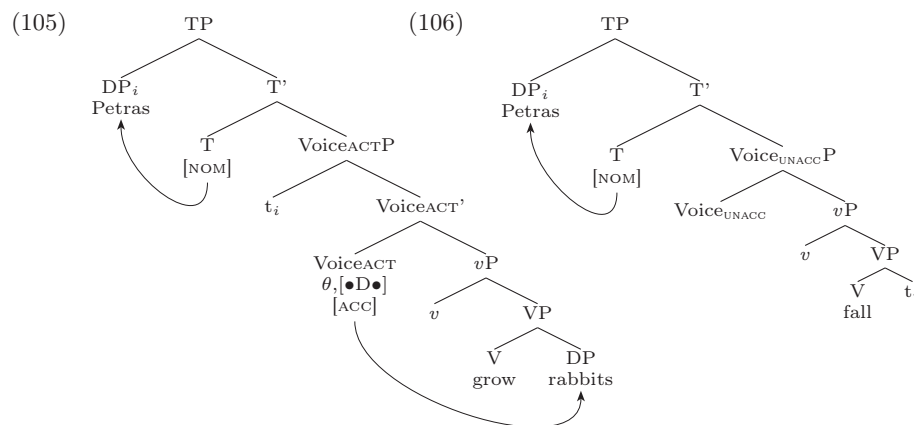
To sum up, the lack of independent Voice morphology, the absence of passivization and projections that typically intervene between *n*P and VoiceP constitute evidence for the presence of a $n_{\text{voice}_{\text{ACT}}}$ P in CENs. CENs behave in many respects like main verbal clauses apart from the 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.

5.2 Possible Configurations of CENs

In this section, I provide a full set of possible configurations of CENs and main verbal clauses with different flavours of an active Voice, thematic and non-thematic. I suggest that both types of active Voices are compatible with CENs.

There is a tradition in the literature to 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 the assignment of accusative case to the theme, as in (105) with a transitive predicate. Verbal clauses with unergative predicates like *work* will also contain a thematic Voice with an external argument in SpecVoiceP. The only

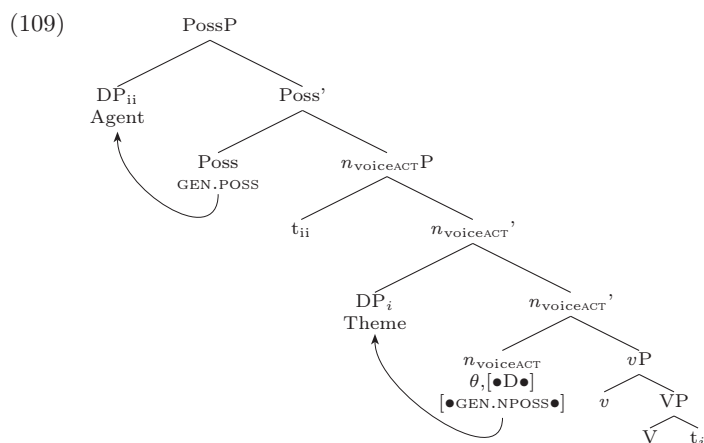
difference is that these constructions lack a theme grammatical object (the structure is not included). Verbal clauses formed with unaccusative predicates like *fall* with a theme argument will have the structure in (106). They will contain a type of an active Voice, which is non-thematic: it lacks an external-argument θ -role and does not assign structural accusative case. The theme will raise to SpecTP position and receives nominative case from T.

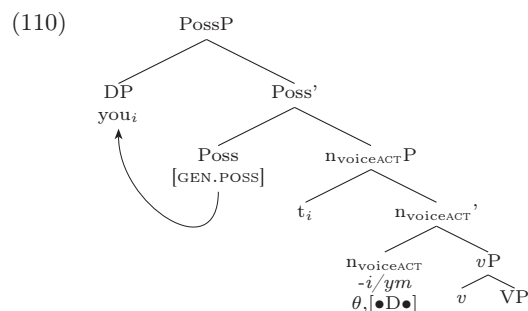


CENs formed with transitive (107) and unergative predicates as in (108) will have the $n_{voiceACT}P$ as in (109) and (110), which performs the functions of an active thematic Voice. The agent, which in both constructions is introduced in $Specn_{voiceACT}P$, will raise to PossP and receive GEN.POSS. 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 in $SpecvP$. This also derives the correct word order: both the agent and the theme will precede the deverbal noun. The verbal complex will be attached to $n_{voiceACT}$ encoded by the suffix *-i/ym* via head movement forming a deverbal noun.

(107) 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’

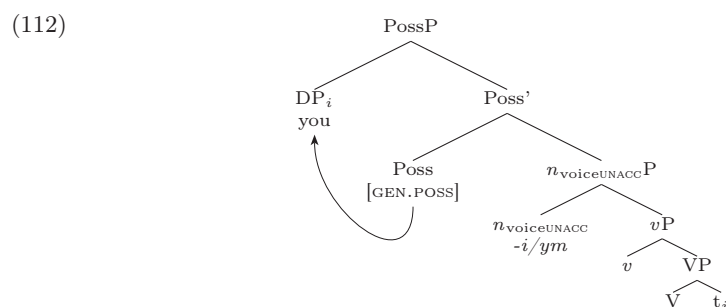
(108) tav-o plaukioj-im-as basein-e kiekvien-ą dien-ą
 you-GEN.POSS swim-NMLZ-NOM.SG swimming.pool-LOC every-ACC day-ACC
 ‘your swimming in the swimming pool every day’





The derivation of CENs with unaccusative predicates as in (111) will go as follows. They have a $n_{\text{voiceUNACC}}$ projection as in (112) 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 (106). This head differs from a thematic Voice in that it does not assign an external argument θ -role and lacks a specifier. It also does not assign a grammatical object case, namely GEN.NPOSS to the theme. The theme instead raises to SpecPossP and receives GEN.POSS case from the Poss head.

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



To sum up, I have suggested that CENs are compatible with two types of active Voices that are found in verbal clauses, a thematic Voice and a non-thematic one.

6 Conclusions and Implications

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 and do not exhibit the assignment of accusative case. In contrast, I have demonstrated that CENs and verbal clauses in Lithuanian are similar in terms of their structure and case assignment. Both constructions contain a full vP layer as well an active Voice, which can be either thematic or non-thematic. While the properties of Voice are represented by an independent projection, namely VoiceP, in the verbal domain in Lithuanian, I have argued that in the nominal domain, the functions of Voice and the properties of a categorizing head n are subsumed under one projection. One of the main contributions of this paper was to show that CENs exhibit two distinct genitives which are analogous

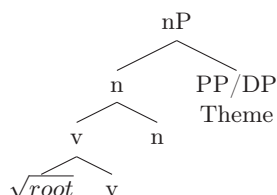
to a nominative-accusative case pattern suggesting that case assignment in the nominal domain is parallel to case assignment in the verbal domain. The only difference is that structural object case in CENs is assigned under movement whereas in verbal clauses it is assigned in situ.

6.1 Complex Head Analysis

This study has also provided important evidence for the phrasal layering approach, according to which, CENs are formed by nominalizing at least a full *vP* layer. These findings have important implication for other analysis of CENs e.g., a complex head analysis according to which the inner structure of CENs lacks a full *vP* (see Wood 2021 for Icelandic, Marantz 2022 for English, also McIntyre 2014 for English -er nominals, Embick 2021b for adjectival passives). In the remainder of this section, I briefly outline a number of arguments showing that this type of approach does not work for Lithuanian suggesting that languages vary in how much verbal structure can be present in CENs.

Wood (2021) shows that Icelandic CENs have an overt *v* head, but do not inherit case-marking patterns that are normally determined within the *vP* layer. Wood (2021) takes these facts as the evidence for the absence of a full *vP*. He proposes the structure in (113) where the nominal and verbal heads are combined directly, and the theme argument is introduced as a PP/DP complement of the deverbal noun.

(113) Complex Head Approach, Icelandic CENs



Under the complex head analysis, it is predicted that the presence of complex verbal structures as well as the retention of various verbal case-marking patterns should not be possible. However, this prediction is not borne out for Lithuanian.

First, recall from section 2 that in addition to the *v* head, Lithuanian CENs contain a number of other verbal affixes that originate within a *vP* like inner aspect and secondary imperfectivization, which point to the rich verbal structure that includes more than a *v* head, which is problematic for the complex head analysis.

Second, if CENs contain a *vP*, then inherent case patterns, determined within that *vP*, should be retained in CENs. Indeed, the inherent dative case is retained in CENs with monotransitive and ditransitive predicates in (114) and (115) (also see section 3).

(114) 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’

(115) Marij-os melaging-ų parodym-ų **dav-im-as**
 Marija(F)-GEN.SG false-GEN.M.PL evidence(M)-GEN.PL give-NMLZ-NOM.M.SG
 policij-ai.
 police(F)-DAT.SG
 ‘Marija’s giving of false evidence to police’

Under the complex head analysis, the assignment of the inherent dative in CENs should be impossible: there should be no *vP* meaning that there also should be no ApplP, which is the source of dative case assignment. The retention of the inherent dative constitutes robust evidence for the phrasal layering approach.

The retention of non-structural case is also attested in CENs with copular constructions. Copular predicates like *būti* ‘to be’ occur with an secondary predicate in instrumental³⁷ as in (116). 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 (117). The secondary predicate is retained together with its instrumental case. In order for the CENs like (117) to be possible, this construction should have a *vP* which hosts a secondary predicate and allows the assignment of instrumental.

- (116) Iev-a buv-o Parlament-o nar-e keli-as
 Ieva.F-NOM.SG be-PST.3 Parliament-GEN.SG member-INS.F.SG few
 kadencij-as iš eil-ès.
 cadence-ACC.PL from row-GEN.SG
 ‘Ieva was a member of the Parliament for a few cadences in a row.’

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

Lastly, CENs are also possible with resultative secondary predicates (see Pakerys 2006, 145 for discussion), which appear in a form of an adverb as in (118). Various studies suggest that these constructions have a complex *vP* internal structure with ResultP having a resultative predicate (e.g., Hasegawa 1999; Ramchand 2008).

- (118) Iev-a nu-daž-è dur-is žali-ai.
 Ieva-NOM.SG PFV-paint-PST.3 door-ACC.SG green-ADV
 ‘Ieva painted the door green.’

(119) shows that CENs can be formed with resultative predicates where the theme appear in genitive and precedes the deverbal noun whereas the adverb occurs after it (Pakerys 2006). (119) is challenging for the complex head analysis, according to which the presence of resultative secondary predicates should be ruled out.

- (119) [Dur-ų nudaž-ym-as žali-ai] nustebin-o lankytoj-us.
 door-GEN.SG paint-NMLZ-NOM.SG green-ADV surprise-PST.3 visitor-ACC.PL
 ‘Painting of the door green surprised the visitors.’ (Adapted from Pakerys 2006, 145)

To summarize, CENs can be formed with a variety of complex verbal structures and inherit the argument structure of their corresponding verbs together with their case-marking patterns. Lithuanian CENs cannot be derived by directly merging a nominal and a verbal head, as suggested by the complex head analysis (McIntyre 2014; Wood 2021; Marantz 2022). I have extensively argued that the structure of CENs is parallel to the structure of verbal clauses.

³⁷For the assignment of this case in Slavic see Matushansky 2000; Pereltsvaig 2007; Citko 2008).

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Declarations Conflicts of interest/Competing interests
The author has no relevant financial or non-financial interests to disclose.

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7 Appendix A

Attested and elicited examples with two genitive phrases.

- (120) 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)
- (121) 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)
- (122) 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)
- (123) 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.'³⁸

³⁸Adapted from https://www.vdu.lt/cris/bitstream/20.500.12259/108151/1/evelina_sankauskaite_b.d.pdf
Accessed on 10-20-2021

- (124) 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’³⁹
- (125) 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)’⁴⁰
- (126) 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...’⁴¹
- (127) [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.’
- (128) [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.’

³⁹<https://e-seimas.lrs.lt> Accessed on 10-20-2021

⁴⁰<http://www.kazlusporto.puslapiai.lt/OSS/10-pasaulio-oss-cemp-ai.htm> Accessed on 10-20-2021

⁴¹Adapted from <http://wikimapia.org/5753340/lt/Alksnyn%C4%97s-gynybinis-kompleksas> Accessed on 10-20-2021

- (129) 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.’⁴²
- (130) 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.’⁴³
- (131) 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)
- (132) 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
 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

⁴²<https://www.vle.lt/straipsnis/paprotine-teise/> Accessed on 11-15-2021

⁴³<https://www.delfi.lt/news/daily/lithuania/metai-klaipedai-pazere-staigmenu-ir-pergalui.d?id=5742088>
 Accessed on 10-16-2022

8 Appendix B

- (133) 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...’⁴⁴
- (134) [**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.’⁴⁵
- (135) 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’⁴⁶
- (136) 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.’⁴⁷
- (137) 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.’⁴⁸
- (138) 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.’⁴⁹

⁴⁴https://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

⁴⁵<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

⁴⁶<https://www.basketnews.lt/news-39856-heat-susigrazino-persvara-nba-finale-foto-video-statistika.20.html>
 Accessed on 11-15-2021

⁴⁷<https://mokslai.lietuviuzodynas.lt/psichologija/saves-vertinimas-2>
 Accessed on 11-15-2021

⁴⁸<https://www.delfi.lt/moterys/asmenybes/londone-gyvenancia-monika-linkyte-nustebino-zmoniu-eldesys-buvau-nepratusi.d?id=79189715> Accessed on 11-15-2021

⁴⁹<https://lt.bmwmarine.net/how-tell-guy-you-like-him> Accessed on 11-15-2021