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

Milena Šereikaitė

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

Keywords Nominalizations, Voice, Bundling, Case, A-movement, Lithuanian

1 Introduction

This study presents evidence from Lithuanian (Baltic) demonstrating that complex event nominalizations (CENs) contain two syntactically distinct genitives that pattern like structural nominative and accusative in verbal clauses. CENs in some languages

Cornell University
Department of Linguistics
203 Morrill Hall
159 Central Ave
Ithaca, NY 14850
E-mail: ms3898@cornell.edu

have been argued to be defective in that they exhibit an ergative case pattern and have a passive-like VoiceP (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014, for earlier studies see Williams 1987; Bok-Bennema 1991; Johns 1992). Lithuanian CENs show the opposite pattern: they do not display an ergative case alignment nor do they allow passivization. I argue that CENs have an active thematic Voice with a syntactically projected agent, and exhibit a transitive case pattern with two distinct genitives. These properties are accounted for by bundling an active Voice with a categorizing *n*.

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

(1) 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.M.SG
'Petras' raising of rabbits' (Adapted from Pakerys 2006, 129)

Nouns do not exhibit a morphological distinction between the two genitives. However, some pronouns have two morphologically distinct genitives: a possessive genitive form *mano/tavo* 'me.GEN.POSS/you.GEN.POSS' and a non-possessive genitive form *manęs/tavęs* 'me.GEN.NPOSS/you.GEN.NPOSS' (Ambrazas et al. 1997, 192).[2] In the CEN of (2a), the agent bears possessive genitive, whereas the theme appears in non-possessive genitive (Pakerys 2009):[3]

(2) a. Aš tave palaiki-au daugybę metų.
I.NOM you.ACC support-PST.1SG many years
'I supported you for many years.'

b. Man-o tav-ęs palaik-ym-as daugybę metų
me-GEN.POSS you-GEN.NPOSS support-NMLZ-NOM.M.SG many years
'My support of you for many years' (Adapted from Pakerys 2009, 138)

Based on evidence from the pronouns in (2b), I demonstrate that a possessive genitive case and a non-possessive genitive case represent two syntactically distinct cases assigned by distinct heads as in (3). The possessive genitive case is assigned to the highest available argument in the structure just like structural nominative in the verbal clause in (4). The non-possessive genitive is assigned to the internal argument of CENs formed with transitive predicates, and thus corresponds to structural object case, namely accusative, assigned to a grammatical object in verbal clauses. However,

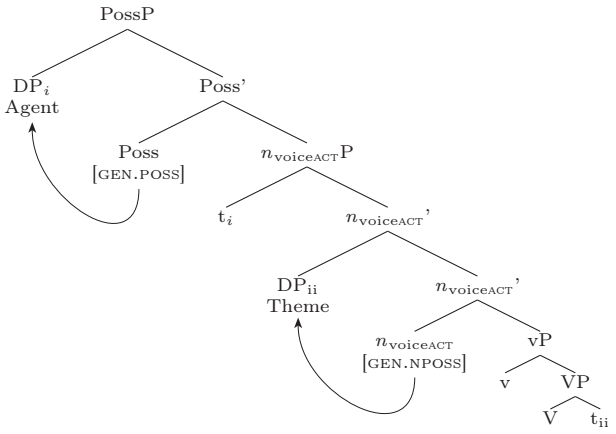
[1] I am following Leipzig glossing conventions with the following editions: -AGR - non-agreement, CNT - continuative, DIST - distributive, POSS - possessive, NPOSS - non-possessive, PPP - past passive participle, PRM - permissive, PRPP - present passive participle, TH - thematic vowel.

[2] I chose to gloss these two genitives according to the 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, for example, DPs marked with this case can function like subjects of evidentials (see Sect. 4.1).

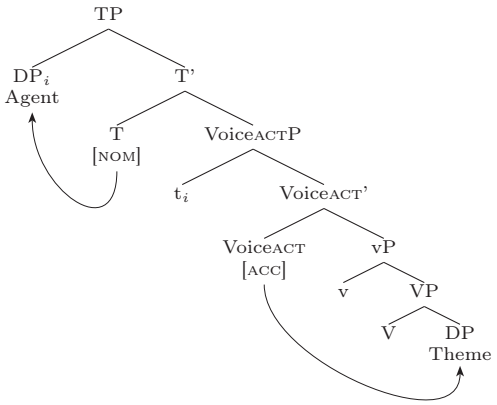
[3] The basic word order in Lithuanian is SVO as in (1a). However, if an object is a pronoun, then it can precede the verb as in (2a), which I treat as an instance of object shift (see fn. 24). The movement of a pronominal object in verbal clauses is not motivated by case assignment.

I show that while in a 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).

(3) CEN



(4) Active Transitive



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

The lack of passivization and the presence of a transitive case pattern are captured by extending a Voice-bundling approach to CENs. In Voice-splitting languages, VoiceP and *v*P are separate projections, whereas in Voice-bundling languages there is a single *v*/Voice projection, which serves all functions that *v* and Voice would perform independently (e.g., Kratzer 1996; Pylkkänen 2008; Harley 2013; Legate 2014). In Lithuanian verbal clauses, VoiceP and *v*P are separate projections in (4) (Šereikaitė

2021). However, Lithuanian CENs display Voice-bundling. CENs like (3) have an $n_{\text{voice}_{\text{ACT}}}$P that performs the functions of a nominalizing n head and an active thematic Voice (also see Punske 2010, 2012 for this approach). Just like n, $n_{\text{voice}_{\text{ACT}}}$ nominalizes the verbal structure. This head also behaves like an active thematic Voice: it introduces an external argument θ-role, has a projected agent in its specifier, and assigns structural object case, namely non-possessive genitive, to the theme (see Ahdout 2021 for active Voice in Hebrew nominalizations). The assignment of this case is based on movement to $n_{\text{voice}_{\text{ACT}}}$P.

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

Lastly, this study also contributes to an ongoing debate on how much verbal structure is present in CENs. Some studies argue that CENs are built on top of a vP (Borer 1997, 2012; Roeper and van Hout 1999; Alexiadou 2001; Fu et al. 2001), which I will call a phrasal layering approach following Wood (2023). However, more recent studies offer a complex head analysis of CENs where no vP layer is present in the structure, instead n is directly merged with v (Marantz 2022; Wood 2023; also McIntyre 2014 for *-er* nominals). Lithuanian CENs support the phrasal layering analysis.

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

2 CENs and main verbal clauses in Lithuanian

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

Three types of nominals can be distinguished in various languages: i) complex event nominals as in (5a) that license obligatory argument structure and denote complex events, ii) simple event nominals as in (5b) that denote an event but are not associated with event structure, and lack full argument structure, iii) result/referential nominals

Table 1 Layers found in CENs and verbal clauses

Position	Layers	CENs	Verbal Clauses
Inside *v*P	Causative *-in*	✓	✓
	Inner Aspect *iš-, nu-, su-, etc*	✓	✓
	Secondary Imperfectivization *-inė*	✓	✓
	Reflexive clitic *si*	✓	✓
Outside *v*P	Voice	✓	✓
	Habitual Aspect *-dav*	*	✓
	Continuative Aspect *be-*	*	✓
	Modal *te-*	*	✓

as in (5c) that refer to the result of an event or a participant, and cannot take arguments (e.g., Grimshaw 1990; Borer 2003, 45; Alexiadou and Grimshaw 2008, 2).

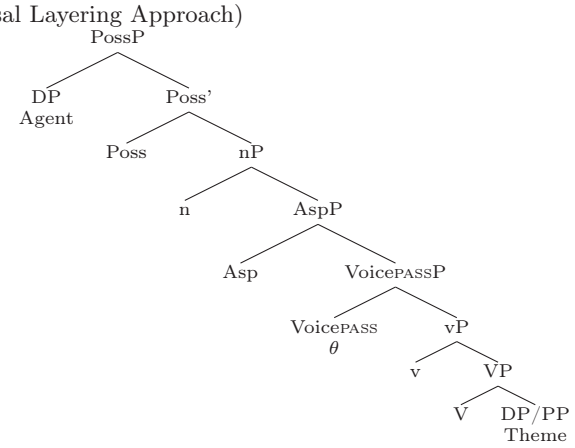
(5) a. The examination of the patients took a long time. *Complex*

b. The examination took a long time. *Simple*

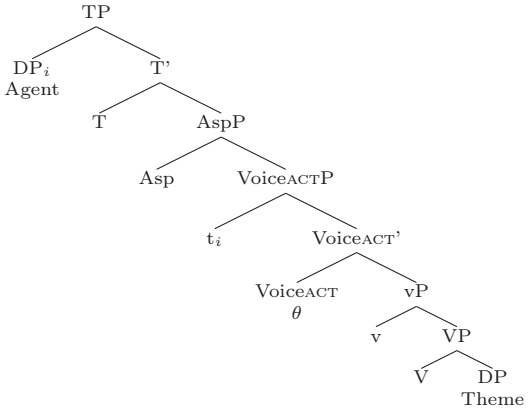
c. The examination was on the table. *Result*

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

(6) CEN (Phrasal Layering Approach)



(7) Active Transitive



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

2.1 Lithuanian nominalizations as CENs

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

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

Two readings are available in (8): in (i) *Petras* is interpreted as the agent of the deverbal noun and in (ii) *Petras* is the possessor of the theme. Nominalizations with two genitives are not very frequent in Lithuanian (Pakerys 2006; Zaika 2016). This may be due to the availability of the two distinct readings. My consultants accept both readings in the relevant context. In this paper, I focus on the complex event reading in (i). Attested examples of CENs with two genitives are provided in Appendix A.

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

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

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

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

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

Further evidence for treating Lithuanian nominalizations as CENs comes from temporal modifiers. CENs permit temporal modifiers like *frequent* or *constant*. These modifiers can occur with a singular deverbal noun as in (13). However, result nominals, which lack a complex structure, behave differently. Temporal modifiers cannot be added to these nominals when the noun is singular as in (14) whereas plural result nominals are compatible with these modifiers as in (15).[4]

(12) Iev-a egzamin-av-o mokini-us.
Ieva(F)-NOM.SG exam-*v*-PST.3 student(M)-ACC.PL
'Ieva examined/was examining the students.'

(13) Iev-os dažn-as mokini-ų
Ieva(F)-GEN.SG frequent-NOM.M.SG student(M)-GEN.PL
egzamin-av-im-as
exam-*v*-NMLZ-NOM.M.SG
'Ieva's frequent examination of students'

(14) * dažn-as egzamin-as
frequent-NOM.M.SG exam(M)-NOM.SG
'a frequent exam'

(15) dažn-i egzamin-ai
frequent-NOM.M.PL exam(M)-NOM.PL
'frequent exams'

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

2.2 *v*P internal layers

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

[4]Pluralization 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 (see Alexiadou 2009; Alexiadou et al. 2010).

2.2.1 Causatives

Lithuanian has causative suffixes *-in*, *-din*, *-d* that attach to verbs (see Ambrazas et al. 1997, 224–226; Arkadiev and Pakerys 2015). To form a causative, the suffix *-in* is added to predicates like *grow*, (16). This suffix cannot be used with inchoatives as in (17).

(16) Petr-as aug-*in*-o triuši-us.
Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
'Petras was raising rabbits.'

(17) Triuši-ai aug-*(*in)*-o.
rabbit(M)-NOM.PL grow-CAUS-PST.3
Intended: 'Rabbits were growing.'

Just like verbs in verbal clauses, deverbal nouns in CENs permit causative suffixes as in (18). I assume that causative morphology is a reflection of a *v* head (see e.g., Harley 2013). The presence of *-in* suggests that CENs have a *v* head in their structure.

(18) Petr-o triuši-ų aug-*in*-im-as
Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
'Petras' growing of rabbits' (Adapted from Pakerys 2006, 129)

2.2.2 Inner Aspect

Lithuanian has aspectual prefixes such as *nu*, *su-*, etc (Paulauskienė 2006; Arkadiev 2012; Korostenskienė 2017b; Šereikaitė 2018), which in the Slavic literature are known as lexical prefixes (Babko-Malaya 1999; Svenonius 2004). They add a perfective or temporal meaning to the verb. These prefixes originate inside *v*P because they can introduce a new argument to the structure or form an idiosyncratic meaning with the verb. The deverbal noun in the CEN in (20) takes the lexical prefix *nu-*, just like the corresponding verb in (19). This means that CENs have an inner aspect that is associated with *v*P.

(19) 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.'

(20) [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 (21) (Ambrazas et al. 1997, 237; Armoskaite and Sherkina-Lieber 2008). This phenomenon is called secondary

imperfectivization (Schuyt 1990; Svenonius 2004). I follow the literature on Slavic (e.g., Romanova 2004) and assume that this aspect is part of the internal structure of a *v*P.[5]

(21) 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 CENs.

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

2.2.4 si clitic

CENs can also appear with the *si* clitic. This clitic may have a variety of uses including reflexive, reciprocal or anticausative (Geniušienė 1987; Korostenskienė 2017b). An example with *si* is provided with an anticausative use in (23).

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

CENs can be formed with anticausative verbs with *si* as in (24). *Si* is retained and the theme is genitive. The nominalization has an anticausative reading where the fabric dyed red e.g., because of other clothes that were in the washing machine.

(24) [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.'

[5]The suffix *-inė* occupies a *v*P-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 *v*P, given Baker's (1985) Mirror Principle. Second, this suffix cannot be attached to the auxiliary as in (i), which is also suggestive of a low position. Third, Korostenskienė (2017b, 478) notes that *-inė* has narrow scope with respect to super-lexical prefixes which are above *v*P (see fn. 12 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-PRPP-NOM.F.PL
'Stocks were bought up (repeatedly).'

I follow Korostenskienė's (2017b) analysis of *si* and suggest that it originates in *v*P.[6] Its low position can be observed in agent nominals like (25) (Zaika 2016). These nominals have a *v* head, but lack VoiceP, and yet they do allow *si* (Šereikaitė 2020; see Baker and Vinokurova 2009 for English). The presence of *si* in (24) points to the presence of a *v*P in CENs.

(25) 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 indicate that they contain a verbal layer.

2.3 *v*P external layers

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

2.3.1 Voice

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

Agentive Reading. The first argument for the thematic Voice in Lithuanian CENs is an obligatory agentive reading. Kratzer (1996, 128) shows that in English CENs, the DP *Maria* in (26) allows two readings: i) the agentive one where *Maria* is the reader of Pride and Prejudice and ii) the non-agentive one where *Maria* is interpreted as the one who attended the reading instead of being the reader herself. (27) is another example that can have a non-agentive reading: a play that Bill attended.

(26) Maria's reading of Pride and Prejudice received better reviews than Anna's.

(27) Bill's performance of the play (Embick 2021a, 79)

[6] These 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 Šereikaitė 2017 for Lithuanian).

The optionality of agentive reading in English CENs suggests that unlike English gerunds, these CENs lack the external argument introduced in SpecVoiceP (see Kratzer 1996; Alexiadou 2001; Harley 2009; Embick 2021a). The DP with the Saxon genitive in (26–27) is not a true argument of Voice, it is a possessor introduced in SpecDP.

In contrast, the agentive interpretation in Lithuanian CENs is obligatory.[7] (28) introduces a type of context which favors a non-agentive interpretation and yet the genitive DP 'judge' is interpreted as an agent. Specifically, the judge read the sonnets herself rather than evaluating the reading.[8] This suggests that Lithuanian CENs have an agentive Voice where the external argument originates.

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

(28) Skaitov-ų konkurs-o met-u [pirm-o
reciter(M)-GEN.PL competition(M)-GEN.SG time(M)-INS.SG first-GEN.M.SG
teisėj-o Šekspyr-o sonet-ų
judge(M)-GEN.SG Shakespeare(M)-GEN.SG sonnet(M)-GEN.PL
skait-ym-as] buv-o daug raišk-esn-is negu
reading-NMLZ-NOM.M.SG be-PST.3 more expressive-COMP-NOM.M.SG than
antr-o teisėj-o.
second-GEN.M.SG judge(M)-GEN.SG

'During the poetry recitation competition, the first judge's reading of Shakespeare's sonnets was more expressive than the second judge's reading.'
(i) ✓ The judge read the sonnets herself.
(ii) # The judge attended the reading but did not read the sonnets.

Instrumentals. Lithuanian CENs also permit instrumentals, which denote the tools that the agent used to perform an action as in (29). This is another indication that they have an agentive interpretation. See Appendix A for more examples.

(29) 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 dieną.
attack-NMLZ-NOM.M.SG tank(M)-INS.PL start-PST.3 January 27 day

'The Soviet Union's attacking of Klaipėda city with tanks started on January 27th.'[9]

Comitatives. External-argument-oriented comitatives, which point to a thematic Voice layer are possible. (30) indicates that the agent acted together with the comitative in performing the action.

[7] This generalization applies to CENs with transitive and unergative predicates, but not unaccusatives as they lack an external argument.

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

[9] Adapted from http://wikimapia.org/5753340/lt/Alksnyn%C4%97s-gynybinis-kompleksas Accessed on 10-20-2021

(30) [Vaik-ų gamt-os tyr-inė-j-im-as *kartu*
child(M)-GEN.PL nature(F)-GEN.SG explore-IPFV-EP-NMLZ-NOM.M.SG together
su tėveli-ais] yra svarb-u tiek jų
with parent(M)-INS.PL be.PRS.3 important-N that they.GEN
psichologin-ei tiek emocin-ei būsen-ai.
psychological-DAT.F.SG and emotional-DAT.F.SG state(F)-DAT.SG
'Children's exploration of nature together with their parents is important for their psychological and emotional state.'[10]

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. (31a–31b), allow only the type of reading where the children were registered by someone rather than registered themselves. These constructions contain a thematic VoiceP that requires an agentive interpretation and this gives rise to the ungrammaticality of the *self*-action reading. *-ation* nominalizations allow both interpretations as in (31c) suggesting that they may lack a thematic VoiceP (Alexiadou 2017; Wood 2023).

(31) 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 (Šereikaitė 2022), do not permit the *self*-action reading as in (32). The same holds for Lithuanian CENs as in (33). 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.[11]

(32) Vaik-ai buv-o registruoja-m-i.
child(M)-NOM.PL be-PST.3 register-PRPP-NOM.M.PL
(i) *Theme = Agent: 'The children registered themselves.'
(ii) Theme ≠ Agent: 'The children were being registered by someone.'

(33) Ši-oje ataskait-oje buv-o kalba-m-a apie labai
this-LOC.F.SG report(F)-LOC.SG be-PST.3 talk-PRPP-[-AGR] about very
sulėtėjusį vaik-ų registrav-im-ą.
slower child(M)-GEN.PL register-NMLZ-ACC.M.SG
'In this report, the slower registration of children is being talked about.'
(i) *Theme = Agent, (ii) Theme ≠ Agent

Agent-oriented adjectives. CENs forbid agent-oriented adverbs like *consciously*, which attach at the level of a verbal thematic VoiceP as in (34). In contrast, agent-oriented adjectives are allowed as in (35).

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

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

(34) * [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.M.SG conscious-ADV everyone-ACC.PL
nustebin-o.
surprise-PST.3
'Jonas' unexpected destruction of the records purposefully surprised everyone.'

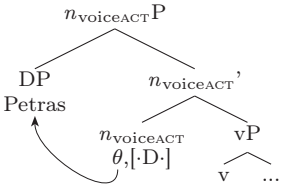
(35) [Jon-o *sąmoning-as* įraš-ų
Jonas(M)-GEN.SG conscious-NOM.M.SG record(M)-NOM.PL
su-naik-in-im-as] vis-us nustebin-o.
PFV-destroy-CAUS-NMLZ-NOM.M.SG everyone-ACC.PL surprise-PST.3
'Jonas' purposeful destruction of records surprised everyone.'

The fact that CENs are compatible with agent-oriented adjectives rather than adverbs indicates that this Voice is nominal rather than verbal. Adverbs like *loudly* which attach at the level of *v*P are possible, (36), pointing to the presence of vP.

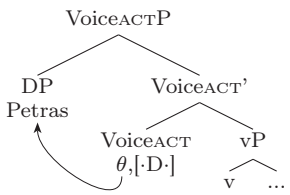
(36) [Iev-os dažn-as knyg-ų skait-ym-as
Ieva(F)-GEN.SG frequent-NOM.M.SG book(F)-GEN.PL read-NMLZ-NOM.M.SG
garsi-ai] man-e labai erzin-o.
loud-ADV me-ACC very irritate-PST.3
'Ieva's frequent reading of books loudly irritated me a lot.'

The evidence from the obligatory agentive reading, instrumentals, the *self*-action reading, and comitatives suggests that CENs have a thematic Voice, which assigns an external argument θ-role. This function of Voice is encoded by $n_{\text{voice}_{\text{ACT}}}$P above *v*P, (37). This Voice is nominal as it permits agent-oriented adjectives. In Sect. 5.1, I will argue for the Voice-bundling approach, suggesting that this projection also nominalizes the verbal structure and thus, additionally performs the function of *n*. In terms of Voice, the structure of CENs such (39a) is parallel to that of verbal clauses in (39b).

(37) CEN



(38) Active Verbal Clause



(39) a. Petr-o triuši-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 triuši-us
Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
'Petras was raising rabbits.'

Both constructions have an active thematic Voice as in (37–38) with the θ-feature. The verbal clause has a thematic subject, *Petras*, introduced in SpecVoice$_{\text{ACT}}$P. To encode the Voice head's requirement to have a specifier, I use the [·D·] feature (Müller 2010). The external argument θ-role is assigned to the DP in SpecVoice$_{\text{ACT}}$P. Given that CENs also contain an agent, *Petras*, I suggest that, just like the thematic subject of transitives, this DP is merged in Spec$n_{\text{voice}_{\text{ACT}}}$P, which bears the [·D·] feature. The agent receives the θ-role from $n_{\text{voice}_{\text{ACT}}}$. Lithuanian CENs in this respect differ from English CENs. In English CENs, the DP with the Saxon genitive is not a true argument of Voice: it is introduced as a possessor in SpecDP (Alexiadou 2001).

2.3.2 Outer Aspect

Affixes that are reflections of aspectual projections above *v*P are absent in Lithuanian CENs. The suffix *-dav* is a realization of an outer aspect which encodes a habitual meaning as in (40) (Sližienė 1995). It is above *v*P because, unlike lexical prefixes (see Sect. 2.2.2), *-dav* does not affect the argument structure of the verb and in passives, it attaches to the auxiliary rather than the passive participle as in (41) (Šereikaitė 2020).

(40) Aš daž*y*-*dav*-au tvor-as.
I.NOM paint-HAB-PST.1SG fence(F)-ACC.PL
'I used to paint fences.'

(41) Tvor-os bū-*dav*-o dažo-m-*(*dav)*-os.
fence(F)-NOM.PL be-HAB-PST.3 paint-PRPP-HAB-NOM.F.PL
'The fences used to be painted.'

(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'

Super-lexical prefixes stack outside lexical prefixes, add a transparent aspectual-like meaning to a predicate and therefore, originate above *v*P (Svenonius 2004 for Slavic, Korostenskienė 2017a,b for Lithuanian).[12] *Be-* can have a continuative, progressive meaning: it introduces an ongoing background situation during which some event takes place as in (43) (for functions of *be-* see Sližienė 1995, 227–228; Arkadiev 2011).

[12] (i) provides a template of Lithuanian lexical and super-lexical prefixes (Arkadiev 2011). The super-lexical prefix *be-* will always precede lexical prefixes like *pa-*, and the reflexive clitic *si* as in (ii). The prefix *be-* is preceded by another super-lexical prefix *te-* (see Sect. 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-į 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.'[13]

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

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

2.3.3 Modality

CENs in Lithuanian differ from verbal clauses in lacking a Mod(al)P as evidenced by the super-lexical prefix *te-*. This prefix stacks outside the super-lexical prefix *be-* and lexical prefixes, and therefore is positioned higher than the outer and inner aspects (Arkadiev 2011; also fn. 12). *Te-* can add a permissive meaning to the verb, and has been viewed as a modal affix (Holvoet 2021; Korostenskienė 2017b), 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.

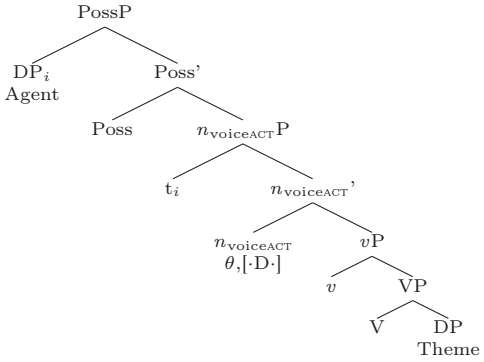
(46) * Iev-os avokad-ų *te*-aug-in-im-as
Ieva(F)-GEN.SG avocado(M)-GEN.PL PRM-grow-CAUS-NMLZ-NOM.M.SG
Lit. 'Letting Ieva growing of avocados'

2.4 Interim Summary

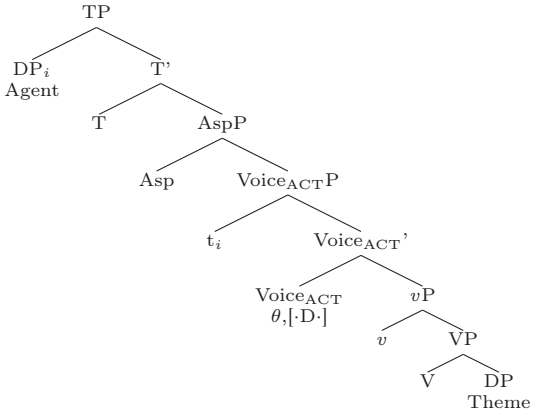
I have provided evidence in favor of treating Lithuanian nominalizations as CENs in the sense of Grimshaw 1990. Lithuanian CENs encode complex events and inherit the argument structure of their corresponding verbs. CENs have a rich verbal structure, but differ slightly from verbal clauses as illustrated in (47) and (48).

[13] Adapted from https://www.ekspertai.eu/sutrumpinti-kelia-skirsnemuneje-po-kurybiniu-architekturos-dirbtuviu-bus-galima-estetiskiau. Accessed on 07-19-2021.

(47) Lithuanian CEN



(48) Active Verbal Clause



Both constructions have vP which can host inner aspect and secondary imperfectivization.[14] Thus, Lithuanian CENs support the phrasal layering approach according to which n nominalizes at least vP (Alexiadou 2001; Fu et al. 2001; Roeper and van Hout 2009; Embick 2010; Borer 2013). Both constructions have an active thematic Voice, $n_{\text{voice}_{\text{ACT}}}$ in (47) and Voice$_{\text{ACT}}$ in (48), which has a projected external argument in its specifier. The type of Voice present in CENs is nominal rather than verbal. In Sect. 5.1, I will provide arguments for Voice-bundling.

Lastly, the outer aspect, namely AspP, is present in verbal clauses, but absent in CENs, (47). While verbal clauses can have ModP (not included in the tree), CENs cannot.[15] I follow a rich literature on CENs and assume that they are crowned by the Possessor Phrase (Baker 2015; Wood 2023; also Abney 1987; Alexiadou 2001 for similar proposals) where the agent moves (for movement to SpecPossP see Sects. 4.3 and 5.2).

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

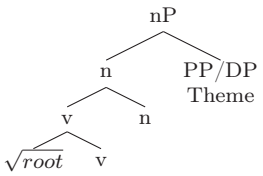
[15] Negation, expressed by the prefix *ne-*, can occur in nominalizations (Pakerys 2006; Arkadiev 2016). However, *ne-* also occurs with nominals that are not CENs as in (i). This means that *ne-* is not associated with a complex verbal structure. Therefore, I tentatively suggest that *ne-* originates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

2.5 A note on the Complex Head Analysis of CENs

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

Wood (2023) argues that Icelandic CENs have a *v* head, but not a full *v*P. He proposes the structure in (49) where the nominal and verbal heads are combined directly, and the theme argument is introduced as a PP/DP complement of the deverbal noun. According to this analysis, the presence of a complex verbal structure as well as the retention of various verbal case-marking patterns determined within the *v*P region should not be possible in CENs. Wood (2023) shows that these predictions are borne out for Icelandic CENs. However, I argue that they are not borne out for Lithuanian.

(49) Complex Head Approach, Icelandic CENs



In addition to the *v* head, I have argued that Lithuanian CENs contain other verbal affixes that originate in *v*P like inner aspect and secondary imperfectivization. This points to a rich verbal structure that includes more than *v*, which is problematic for the analysis in (49) where the only verbal element present is a *v* head.

If CENs contain a *v*P, then inherent case patterns, determined within that *v*P, should be retained in CENs. Indeed, the inherent dative case on the theme is retained in Lithuanian CENs in (51). The theme DP occurs postnominally with this case (see Sect. 3 for a detailed discussion of this pattern and additional examples with ditransitives).

(50) Marij-a tarnav-o atėjūn-ams.
Marija(F)-NOM.SG serve-PST.3 invader(M)-DAT.PL
'Marija served the invaders.'

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

According to (49), the assignment of inherent dative in CENs should be impossible: there should be no full *v*P meaning that there also should be no ApplP, which is

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

responsible for the assignment of this dative (Sigurðsson et al. 2018; Šereikaitė 2020). The retention of inherent dative constitutes evidence for the phrasal layering approach.

The presence of non-structural case is also attested in copular constructions. Copular predicates like *būti* 'to be' occur with a secondary predicate in instrumental case as in (52). The subject and the secondary predicate agree in number and gender. In CENs with copular verbs, the theme is genitive as in (53) (Pakerys 2006). The secondary predicate is retained together with its instrumental case. In order for the CEN like (53) to be possible, this construction should have a *v*P which hosts a secondary predicate and allows the assignment of instrumental.[16]

(52) Iev-a buv-o Parlament-o nar-e kelias
Ieva(F)-NOM.SG be-PST.3 Parliament(M)-GEN.SG member-INS.F.SG few
kadencijas iš eilės.
cadences from row
'Ieva was a member of the Parliament for a few cadences in a row.'

(53) Iev-os buv-im-as Parlament-o nar-e
Ieva(F)-GEN.SG be-NMLZ-NOM.M.SG Parliament(M)-GEN.SG member-INS.F.SG
kelias kandencijas iš eilės
few cadences from row
Lit. 'Ieva's being a member of the Parliament for a few cadences in a row'

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

3 Structural Case and Movement in CENs

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

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

(i) Iev-a nudaž-ė dur-is žali-ai.
Ieva(F)-NOM.SG paint-PST.3 door(F)-ACC.SG green-ADV
'Ieva painted the door green.'

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

I assume that case is assigned in syntax by an X^0 (Vergnaud 1977/2008; Chomsky 1981). In Lithuanian verbal clauses, the theme of transitives is assigned structural object case, namely accusative, *in situ* by the thematic $\text{Voice}_{\text{ACT}}$ (Šereikaitė 2021). In CENs, the theme of transitives is also assigned structural object case, which is genitive rather than accusative. This case is assigned by the thematic Voice, specifically $n_{\text{voice}_{\text{ACT}}}$P, under movement to Spec$n_{\text{voice}_{\text{ACT}}}$P. Thus, case assignment under movement may vary within domains in a single language. The distinction established between structural and non-structural case will be used in Sect. 4 to show that CENs in fact have two distinct structural genitives.

3.1 Structural vs. non-structural case

In verbal clauses, Lithuanian exhibits a NOM-ACC case alignment. The basic word order is SVO: the theme object follows the verb, (54). In contrast, the theme with structural accusative in (54) becomes genitive in CENs and precedes the deverbal noun, (55–56).

(54) Petr-as aug-in-o *triuši-us.*
Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
'Petras was raising rabbits.'

(55) 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)

(56) *Petr-o aug-in-im-as
Petras(M)-GEN.SG grow-CAUS-NMLZ-NOM.M.SG
triuši-ų/triuši-us
rabbit(M)-GEN.PL/rabbit(M)-ACC.PL
'Petras' raising of rabbits'

The theme in (55) 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 (57). In verbal clauses, the PP follows the predicate. In CENs, the PP also follows the deverbal noun as in (58). In discourse neutral situations, PP cannot precede the deverbal noun as in (59). In contrast, the genitive theme in (55) 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.

(57) 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.'

(58) dažnas mam-os rėk-im-as *ant vaik-ų*
frequent mother(F)-GEN.SG shout-NMLZ-NOM.M.SG on child(M)-GEN.PL
'mother's frequent shouting at the children'

(59) * dažnas mam-os *ant vaik-ų* rėk-im-as
frequent mother(F)-GEN.SG on child(M)-GEN.PL 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 and is retained in a derivation (Woolford 2006; Pesetsky and Torrego 2011). As mentioned in Sect. 2.5, Lithuanian CENs allow inherent case.

Predicates like *tarnauti* 'to serve' take an internal argument with inherent dative (Šereikaitė 2020). Unlike the theme with structural accusative case, this dative DP is preserved under passivization as in (61), which is a property of a non-structural case. The dative is assigned by an Appl head along with a θ-role.

(60) Marij-a tarnav-o atėjūn-ams.
Marija(F)-NOM.SG serve-PST.3 invader(M)-DAT.PL
'Marija served the invaders.'

(61) Atėjūn-ams buv-o (Marij-os) tarnauja-m-a.
invader(M)-DAT.PL be-PST.3 Marija(F)-GEN.SG serve-PRPP-[-AGR]
'The invaders were served (by Marija).' (Sigurðsson and Šereikaitė 2024, 3)

In CENs, the dative DP is retained and follows the deverbal noun, (62) (also Pakerys 2009). This DP cannot appear to the left of the deverbal noun (63). Genitive case cannot be assigned to this argument regardless of its position (62–63). The fact that genitive occurs in a place of structural accusative in (55), but does not appear where inherent dative is assigned indicates that this genitive is a structural case. The assignment of genitive is tied to movement. DPs with inherent case occur postnominally, meaning that they stay *in situ*, whereas DPs with structural genitive move to prenominal position.

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

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

Evidence for the structural vs. non-structural case distinction and movement also comes from ditransitive predicates. Lithuanian CENs can be formed with verbs like *duoti* 'to give' (see Zaika 2016), which in verbal clauses appear with a dative goal and an accusative theme as in (64). The dative in (64) is an inherent case assigned by an ApplP (Sigurðsson et al. 2018). 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. (65) confirms that the assignment of genitive to the theme is restricted to prenominal position.

(64) Mari-ja dav-ė policij-ai melaging-us
Marija(F)-NOM.SG give-PST.3 police(F)-DAT.SG false-ACC.M.PL
parodym-us.
statement(M)-ACC.PL
'Marija gave police a false statement.'

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

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

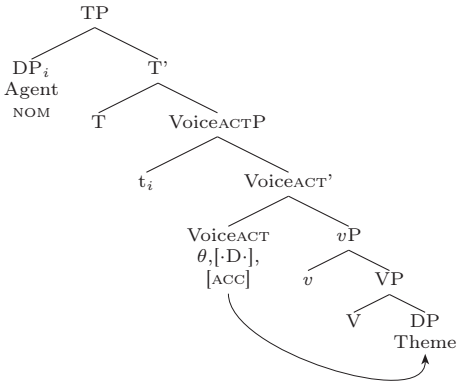
3.2 Case Assignment

Structural accusative case is assigned to a theme grammatical object by an active thematic Voice in Lithuanian (Šereikaitė 2021). In (66a), the theme receives a structural object case, namely accusative, *in situ* from the VoiceACT head, which is encoded by the ACC feature in (67).

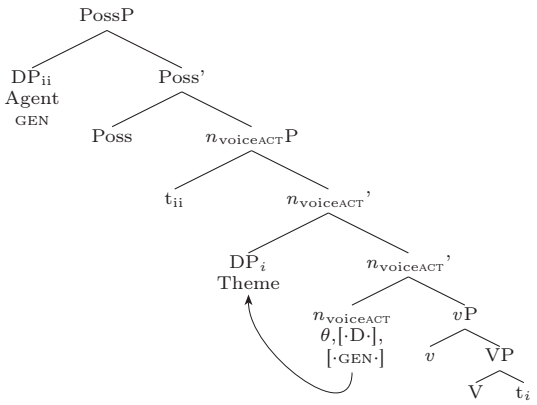
(66) a. Petr-as aug-in-o triuši-us.
Petras(M)-NOM.SG grow-CAUS-PST.3 rabbit(M)-ACC.PL
'Petras was raising rabbits.'

b. Petr-o triuši-ų aug-in-im-as
Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
'Petras' raising of rabbits'

(67)



(68)



CENs like (66b) have a vP with the theme object as its complement as in (68). In CENs, the theme bears structural genitive, whereas in verbal clauses, it is marked with structural accusative. To receive genitive, the theme in CENs moves to prenominal position. Case assignment under movement is found with nominative subjects, for example, nominative case assigned under A-movement by T in Faroese (E F. Sigurðsson 2017). Lithuanian shows that case assignment under movement is also possible in the nominal domain. Just like in verbal clauses, the structural object case in CENs is assigned to the theme by an active thematic Voice, namely n_{voice}ACT. Nevertheless, this head bears the [·GEN·] feature, which is a type of structure-building feature triggering Merge and Move (Müller 2010).[17] As a result, the theme moves to Spec$n_{\text{voice}_{\text{ACT}}}$P where it receives structural genitive. This analysis is plausible if we assume that 'tucking in' derivations (McGinnis 1998; Richards 1999) are possible. Under this approach, the genitive assigned to the theme is a structural object case analogous to structural accusative assigned by an active Voice. In Sect. 4, I present evidence from pronominal forms showing that in CENs, the theme object bears a structural case restricted to grammatical objects—equivalent to structural accusative—whereas the agent receives a structural case analogous to nominative.

4 Two types of structural genitive cases in CENs

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

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

[17] I assume that the features on functional heads come in order (Heck and Müller 2003, also Chomsky 1995, 2000 for Merge taking place before Move). First, by means of the [·D·] feature, the agent will be merged in Specn_{voice}ACTP. Then, by means of the [·GEN·] feature, the theme object will move to Specn_{voice}ACTP and receive case.

these CENs show an ergative case pattern where a single argument of intransitive predicates as well as the theme of transitives bear structural genitive case whereas the agent of transitives has a different case marking and is often introduced in a PP, for example, a *by*-phrase (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). This case pattern has been argued to result from CENs having a defective, passive-like Voice[18] that lacks a projected external argument (Alexiadou 2001, 2017). While ergativity and passive structure in CENs in some languages are related[19], the two can exist independently of each other and should not be conflated, as mentioned by an anonymous reviewer (for ergativity see Woolford 2006; Legate 2008; Baker 2015; Deal 2015).

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

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

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

When it comes to nouns, GEN.POSS and GEN.NPOSS are morphologically syncretic. Regardless of whether the noun 'rabbits' appears as a theme (69–71) or as an agent (70), the phonological exponent of genitive will be the same ending *-ų*. However, pronominal forms show a morphological distinction between the two cases. In Sect. 4.1, I investigate the two genitives in different constructions. In Sect. 4.2, I examine how these two genitives behave in CENs. In Sect. 4.3, I discuss case assignment.

(69) Petr-o triuši-ų aug-in-im-as
Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-NMLZ-NOM.M.SG
'Petras' raising of rabbits'

(70) triuši-ų bėg-im-as
rabbit(M)-PL.GEN run-NMLZ-NOM.M.SG
'rabbits' running'

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

[19]Diachronically passives were a major source of ergative constructions (Dixon 1994). The idea that ergative constructions resemble passives goes back to Hale 1970.

(71) triuši-*ų* krit-im-as
rabbit(M)-PL.GEN fall-NMLZ-NOM.M.SG
'rabbits' falling'

4.1 Two genitives across different constructions

Ambrazas et al. (1997, 186–192) report that there are two genitive forms, GEN.POSS and GEN.NPOSS. These forms are found with 1st and 2nd person singular pronouns, the reflexive pronoun, the *wh*-word *who* and quantifiers like *someone*, see Table 2 (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*.

Table 2 Two genitive forms

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

GEN.POSS case is realized with possessors as in (72)(Ambrazas et al. 1997, 192).

(72) 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 (73), the thematic subject is GEN.POSS, the grammatical object is nominative, and the verb takes passive morphology.[20] The subject cannot appear in GEN.NPOSS (Ambrazas 2004). GEN.POSS is a structural case, it is not assigned thematically like a non-structural case: GEN.POSS is realized with a thematic subject of transitives (73), unergatives (74), as well as a theme subject of unaccusatives (75).

(73) Tav-o/*tav-ęs nuramin-t-a vaik-as.
you-GEN.POSS/you-GEN.NPOSS calm-PPP-[-AGR] child(M)-NOM.SG
'You must have calmed the child down.'

(74) Kur tav-o/*tav-ęs vaikščio-t-a...
where you-GEN.POSS/you-GEN.NPOSS walk-PPP-[-AGR]
'Where you must have walked...'[21]

(75) Kur tav-o/*tav-ęs gim-t-a...
where you.GEN.POSS/you-GEN.NPOSS born-PPP-[-AGR]
'Where you must have been born...'[22]

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

[21] Taken from http://www.ndt.lt/wp-content/uploads/BIC171 Accessed on April 9, 2021

[22] Adapted from https://www.zodynas.lt/terminu-zodynas/J/jaunikauti Accessed on April 9, 2021

GEN.POSS patterns like structural case assigned to the highest argument under A-movement, parallel to structural nominative in finite clauses (Šereikaitė 2020).[23] In finite clauses, the highest available argument receives nominative as is illustrated with transitive (76a), unergative (76b), and unaccusative (76c) predicates.

(76) a. Tu nuramin-ai vaik-ą.
you.NOM calm.down-PST.2SG child(M)-ACC.SG
'You calmed the child down.'

b. Tu čia vaikščioj-ai.
you.NOM here walk-PST.2SG
'You walked here.'

c. Tu gim-ei ir užaug-ai Lietuv-oje.
you.NOM born-PST.2SG and grow-PST.2SG Lithuania(F)-LOC.SG
'You were born and grew up in Lithuania.'

In the evidential in (73), GEN.POSS is realized on a thematic subject. In passives, a demoted thematic subject is expressed in an optional adjunct, equivalent to a *by*-phrase in English, which is also marked with GEN.POSS (Ambrazas et al. 1997, 193) as in (77).

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

While GEN.POSS is realized on a thematic subject and a grammatical subject, GEN.NPOSS normally appears with an object of a verb (Ambrazas et al. 1997, 192). Experiencer-like verbs with the reflexive *si* like *gailėtis* 'to be sorry' occur with an object realized in GEN.NPOSS.[24] Sigurðsson and Šereikaitė 2024 demonstrate that the genitive in this construction is a non-structural case because it is retained in passives.

(78) 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 the so-called intentional predicates, such as *geisti* 'to desire' or *laukti* 'to wait'. The object of these verbs appears in GEN.NPOSS as in (79) (Ambrazas et al. 1997, 192). Unlike the genitive in (78), this genitive can advance to nominative in the passive and thus cannot be viewed as a type of non-structural case (Sigurðsson and Šereikaitė 2024). These facts suggest that GEN.NPOSS can be either structural or non-structural case assigned to an object.

[23] See Lavine 2021 for a different perspective on case assignment in this construction.

[24] The basic word order in Lithuanian is SVO when the object is not a pronoun (see Sect. 3.1). If an object is a pronoun, it often precedes the verb yielding an SOV word order as in (78). This word order is based on information structure. In Lithuanian, old information precedes new information (Mathiassen 1996, 236–242; Ambrazas et al. 1997, 690–692). Personal pronouns tend to encode discourse old information, and therefore often occur before the verb. To derive this word order, I tentatively suggest that the pronominal object raises to the edge of a vP as proposed for object shift in other languages (see Chomsky 2001).

(79) 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 (Sigurðsson and Šereikaitė 2024). The object must bear GEN.NPOSS (Ambrazas et al. 1997, 192), GEN.POSS is ungrammatical as in (80).

(80) a. Aš tav-e 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.

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

GEN.NPOSS is also realized with complements of prepositions. For instance, the preposition *ant* 'on' takes a genitive complement marked with GEN.NPOSS as in (82).

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

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

Table 3 Distribution of the two genitives across different constructions

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

4.2 Two genitives in CENs

I now examine the distribution of the two genitives in CENs. Pakerys (2006, 138) observes that in nominalizations, the agent is marked with GEN.POSS whereas the theme bears GEN.NPOSS. I adopted Pakerys' (2006) examples and to ensure that we are testing CENs, the aspectual modifier *for many years* was added. Indeed, the nominative agent of the active appears in GEN.POSS in the CEN in (84). It is ungrammatical for the agent to bear GEN.NPOSS as in (85). 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 structural case. See Appendix B for attested examples.[25]

(83) Tu mane palaik-ei daugybę metų.
you.NOM me.ACC support-PST.2SG many years
'You supported me for many years.'

(84) [Tav-o man-ęs palaik-ym-as daugybę metų]
you-GEN.POSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years
buv-o vis-iems netikėtas.
be-PST.3 everyone-DAT.PL unexpected
'Your support of me for many years was unexpected to everyone.'

(85) * [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.PL unexpected
'Your support of me for many years was unexpected to everyone.'

GEN.POSS case cannot mark both the agent and the theme in CENs as in (86). Koptjevskaja-Tamm (2003, 734) claims that Lithuanian nominalizations exhibit a double possessive pattern and that 'multiple genitives do not appear in structurally different positions.' (86) counterexemplifies her claim as the two DPs with GEN.POSS yield ungrammaticality. Furthermore, GEN.NPOSS case cannot occur with both the agent and the theme as in (87). This suggests that the two genitives in CENs are structurally distinct cases. The distribution of these genitives is associated with different grammatical functions and restricted to distinct syntactic positions: the thematic subject is realized in GEN.POSS whereas the theme object is marked with GEN.NPOSS. This pattern is expected under the generalization established in Table 3.

[25]The theme in (84) is not introduced by a silent P. PPs whose complement is marked with GEN.NPOSS appear after the deverbal noun in discourse neutral situations as in (ii-iii), unlike the theme in (84), also see Sect. 3.1.

(i) Mam-a dažn-ai ant tav-ęs rėk-dav-o.
mother(F)-NOM.SG frequent-ADV on you-GEN.NPOSS shout-HAB-PST.3
'Mother used often to shout at you.'

(ii) dažn-as mam-os rėk-im-as ant tav-ęs
frequent-NOM.M.SG mother(F)-GEN.SG shout-NMLZ-NOM.M.SG on you-GEN.NPOSS
'a frequent mother's shouting at you'

(iii) * dažn-as mam-os ant tav-ęs rėk-im-as
frequent-NOM.M.SG mother(F)-GEN.SG on you-GEN.NPOSS shout-NMLZ-NOM.M.SG

(86) * 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'

(87) * tav-ęs man-ęs palaik-ym-as daugybę metų
you-GEN.NPOSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years

The fact that GEN.NPOSS case is restricted to the theme object in CENs is also confirmed by (88). (88) has a single overt DP argument with GEN.NPOSS, which is interpreted as a theme rather than an agent. I assume that examples like (88) are transitive constructions: they have a syntactically projected null external argument and an overt theme object with GEN.NPOSS, see Sect. 5.1 for argumentation.

(88) [Toks šimtaprocentin-is man-ęs
such 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.PL unexpected
'Such 100% support of me for many years was unexpected to everyone.'

If the nominalization has one overt DP with GEN.POSS, then that DP can be interpreted as an agent (Pakerys 2006), as in (89)–(i). Under this type of reading, no overt theme is present. Recall that CENs require the obligatory presence of the theme when formed with transitive predicates (see Sect. 2.1), thus the construction in (89) with the agentive reading is not a CEN. The DP with GEN.POSS can be also interpreted as a theme (Pakerys 2006). Six out of eight of my consultants favor the agent reading over the theme reading as indicated in (89)–(ii).

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

For those speakers who allow the theme interpretation with GEN.POSS, this construction seems to be equivalent to English nominals like *Rome's destruction*, which are incompatible with a telic reading, for example **Rome's destruction in two hours*. These instances are simple event nominals, which lack an internal argument (Alexiadou 2001; Borer 2003). Thus, *Rome* is base-generated above *n*P. The same pattern holds in Lithuanian. (90) includes a telic modifier and has the type of reading which favors a theme interpretation of the DP with GEN.POSS and yet (90) is infelicitous.

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

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

In CENs with unergative predicates, the agent is assigned GEN.POSS case rather than GEN.NPOSS case as in (91). This is expected given that in CENs with transitive predicates, the external argument is also realized in GEN.POSS.

(91) [Tav-o/*tav-ęs plaukioj-im-as baseine po
you-GEN.POSS/you-GEN.NPOSS swim-NMLZ-NOM.M.SG swimming.pool DIST
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 (92).[26] This sharply contrasts with the theme of CENs with transitive predicates, which bears GEN.NPOSS case. This contrast indicates that GEN.POSS case tracks the highest available argument. In CENs of transitives, the highest available argument is the agent. In CENs of unaccusatives, the highest available argument is the theme. Both of these arguments are assigned the same case.

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

Table 4 summarizes my findings. GEN.POSS in CENs behaves like structural nominative in verbal clauses in (76). It marks the highest available argument: the thematic subject of transitives and unergatives, and the theme subject of unaccusatives. GEN.POSS is realized on both agents and themes and is therefore not tied to a specific θ-role. Thus, GEN.POSS cannot be treated as a non-structural case, which is assigned thematically. The behavior of GEN.POSS in CENs is consistent with that of GEN.POSS in the evidential in (73–75) where it also tracks the highest available argument.

Table 4 Case marking in CENs and finite verbal clauses in Lithuanian

	CENs	Verbal Clauses
Transitive Subject	GEN.POSS	NOM
Intransitive Subject	GEN.POSS	NOM
Transitive Object	GEN.NPOSS	ACC

GEN.NPOSS is realized on the theme of transitives as in (84), repeated in (93) which in verbal clauses is assigned structural accusative as in (83). Therefore, this case corresponds to structural object case assigned to a grammatical object.

[26] Grimshaw (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 the basis for CENs as in (92).

(93) tav-o man-ęs palaik-ym-as daugybę metų
you-GEN.POSS me-GEN.NPOSS support-NMLZ-NOM.M.SG many years
'your support of me for many years'

GEN.NPOSS in (93) 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 (94–96)).[27] The internal argument cannot bear GEN.NPOSS, which is predicted if GEN.NPOSS is a structural case. Unlike the DP marked with inherent case, the DP with GEN.NPOSS case occurs prenominally. This indicates that inherent case is assigned *in situ* whereas GEN.NPOSS case is based on A-movement to prenominal position (also see Sect. 3.1).

(94) 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.'

(95) [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.'

(96) * [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.'

All in all, the two genitives in CENs correspond to two distinct structural cases and their distribution is equivalent to a NOM-ACC case pattern found in verbal clauses. In Lithuanian, the transitive and intransitive subjects are marked with GEN.POSS (analogous to NOM in NOM-ACC languages), whereas the transitive object is marked with GEN.NPOSS (analogous to ACC). Lithuanian CENs do not exhibit an ergative case alignment, which has been identified in CENs in some languages (Alexiadou 2001, 2017; Salanova 2007; Imanishi 2014). For example, Greek CENs show an ergative marking: in (97–99), the transitive object and the subject of intransitives are marked with genitive (equivalent to ABS in ERG-ABS languages), see Table 5. The transitive subject appears with a different marking (similarly to DPs with ERG), namely in a PP. The ergative case pattern in Greek CENs results from the presence of a passive Voice, which lacks a projected external argument (Alexiadou 2017). This creates the type of syntactic environment where only one structural case can be assigned in the *n*P domain.

[27] Regardless of whether the pronominal object bears structural case, recall (83), or non-structural one as in (94), it will precede the verb resulting in an SOV word order in verbal clauses. This object shift is motivated by information structure (see fn. 24). CENs with pronominal forms show a different word order: if the pronominal object is marked with a structural case, it precedes the deverbal noun, undergoes movement. If the pronominal object is marked with a non-structural case, it stays *in situ*, postnominally, see (95). In CENs, the movement of the object is based on case assignment, whereas in verbal clauses it is not.

(97) 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'

(98) i afiksi ton pedion
the arrive the children.GEN
'the children's arrival'

(99) to treksimo tu athliti
the running the athlete.GEN
'the athlete's running'
(Adapted from Alexiadou 2017, 256)

Table 5 Case patterns in CENs in Greek and Lithuanian

	Greek	Lithuanian
Transitive Subject	PP	GEN.POSS
Intransitive Subject	GEN	GEN.POSS
Transitive Object	GEN	GEN.NPOSS

Alexiadou (2017, 358) also mentions that English shows a similar pattern to Greek. In (100), the agent of transitives is expressed as a *by*-phrase whereas the sole argument of intransitives and the theme argument of transitives are expressed through a PP, namely the *of*-phrase. This is reminiscent of the ergative pattern found in Greek rather than a NOM-ACC case alignment found in Lithuanian. However, English also differs from Greek in that it allows CENs with the Saxon genitive as in (101), which are sometimes viewed as transitive (Chomsky 1970; Kayne 1984).

(100) a. the destruction of the city by the barbarians
b. the arrival of the policemen
c. the jumping of the cow (Alexiadou 2017, 358)

(101) John's destruction of the city

A reviewer points out that Lithuanian CENs might be on par with English CENs in (101). However, while CENs like (101) may resemble transitive constructions on the surface, they differ from Lithuanian CENs in a number of ways. The DP with the Saxon genitive is not a true argument of Voice. Rather, it has been viewed as a possessor base-generated in SpecDP (or SpecPossP) as in (6) since it can have a possessor reading: (101) can refer to the destruction that John attended, also see the discussion of similar examples in Sect. 2.3.1. These CENs have a passive Voice that lacks an agent in its specifier. In contrast, Lithuanian CENs have an active Voice, namely n_{VoiceACT}. The genitive agent is introduced in the specifier of this projection (see Sects. 2.3.1 and 2.4). It is a true argument of Voice: the agent reading is obligatory, recall ex. (28).

Given that English CENs have a passive Voice, no accusative case is assigned to the theme (Kratzer 1996; Alexiadou 2001, 2017). Instead, 'of' is inserted as Last-Resort to license the theme (Harley and Noyer 1998). The theme in Lithuanian CENs is not introduced by a PP (see Sect. 3.1). In CENs with transitive predicates, the theme receives GEN.NPOSS from n_{VoiceACT}, which is a realization of structural object case analogous to accusative in transitive verbal clauses, see Sect. 4.3 for discussion.

For completeness, (101) can also be compared with English gerunds, as in (102–103), which behave more like verbal transitive constructions. In (102–103), the theme bears accusative case, and the DP with the Saxon genitive has an obligatory agent interpretation. These constructions have an active verbal Voice that assigns accusative case and introduces an external argument θ-role (Kratzer 1996, Baker and Vinokurova 2009). VoiceP is an independent projection from nP in (102–103), unlike in Lithuanian CENs where n and active Voice are bundled (see Sect. 5).

(102) John's destroying the city

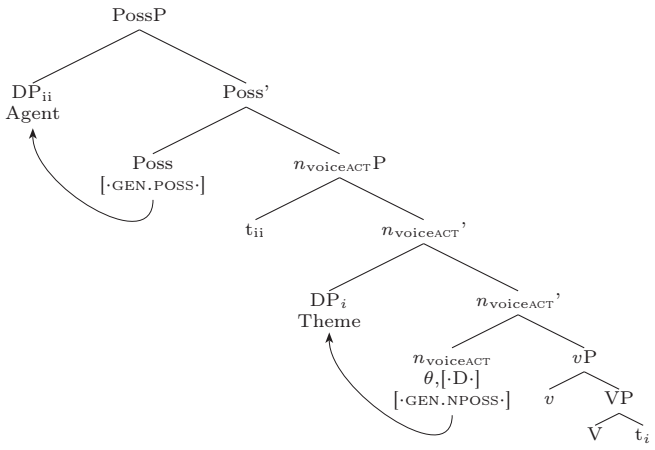
(103) John's criticizing them

To sum up, three types of CENs can be distinguished: Greek type CENs with an ergative case pattern, Lithuanian type CENs with a full transitive pattern that shows a NOM-ACC case alignment, and English type CENs as in (97) with an "apparent transitive" pattern. However, under a more careful investigation, it appears that the third type of CENs behave more like passives (Kratzer 1996; Alexiadou 2001).

4.3 Case Assignment

Lithuanian CENs have two syntactically distinct cases that are morphologically syncretic when it comes to nouns, but appear in different morphological forms when it comes to pronouns. Given that GEN.POSS behaves like structural nominative whereas GEN.NPOSS behaves like structural accusative, I propose that case assignment in the CEN in (104) takes place in a parallel manner to case assignment in verbal clauses.

(104)



Recall that I assume that case is assigned in syntax by a functional head. In the active verbal clause, the highest available argument raises to SpecTP and receives nominative case from a finite T. In CENs, I propose that the highest available argument raises to SpecPossP and receives structural case, namely GEN.POSS, from Poss as in (104) (see Baker 2015 for case assignment in PossP). This is encoded by the [·GEN.POSS·] feature. The same applies to the agent of unergatives marked with GEN.POSS and the

theme of unaccusative predicates, which is a complement of V.[28] There is no finite T in CENs, and thus nominative case cannot be assigned to the highest available argument (see Alexiadou 2001 for discussion). This is also consistent with evidential constructions like (73–75), which also lack a finite T, and the subject in those clauses is assigned GEN.POSS case instead of nominative.

In CENs, GEN.NPOSS is realized on the theme of transitives, which is otherwise assigned accusative in verbal clauses. Therefore, GEN.NPOSS corresponds to structural object case assigned to a grammatical object. In main verbal clauses, structural object case is assigned by an active Voice head and is realized as accusative. In CENs, the structural object case is assigned by n_{VoiceACT} as in (104) and is realized as GEN.NPOSS (also see Sect. 3.2). The case assignment takes place under movement to prenominal position. This is encoded by the [·GEN.NPOSS·] feature in the tree.

I assume that one and the same structural object case can have different realizations. Sigurðsson and Šereikaitė (2024, 164) discuss case assignment in Lithuanian and argue that structural object case, which largely amounts to abstract Case (Vergnaud 1977/2008; Chomsky 1981), is assigned in syntax, then translated to morphological case at PF and later realized at Vocabulary Insertion. The translation process uses the syntactic information available to convert the syntactic case to a specific morphological realization. Structural object case in CENs and in verbal clauses is the same syntactic case. However, when active Voice is bundled with n (see Sect. 5.1 for bundling), structural object case is translated to GEN.NPOSS rather than accusative. The morphological realization of structural object case can be influenced by the presence of other elements in the structure that are visible to each other in the derivation.[29] Note that in Hebrew nominalizations with an independent active VoiceP that is not bundled with n, the object receives accusative case (Ahdout 2021).

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

Šereikaitė 2020 shows that agent nominals like (106) have a v head as evidenced by the suffix *-in* and an inner aspect marked with lexical prefixes (see ex. (25), also Zaika 2016), which point to the presence of vP. However, these constructions lack a thematic VoiceP: they do not allow agent-oriented instruments or comitatives (Šereikaitė 2020). The absence of the thematic Voice results in the absence of GEN.NPOSS. In contrast, GEN.POSS, which is not assigned by Voice, is grammatical.

[28] A reviewer is wondering why the agent moves to SpecPossP. Evidence for that comes from the word order in CENs with unaccusatives. The theme of these CENs originates as a complement of V. It is ungrammatical for the theme with GEN.POSS to stay *in situ*, it needs to precede the deverbal noun. Thus, the theme needs to move to SpecPossP where it receives GEN.POSS (see ex. 127–129, Sect. 5.2). I assume that the same movement applies to the agent of transitives and unergatives.

[29] The fact that one syntactic case does not correspond to a single morphological case has also been observed in Lithuanian verbal clauses with negation. When the verb is negated, genitive of negation (GN) is realized on an object that would otherwise be realized as accusative, see ex. (80). Sigurðsson and Šereikaitė (2024) argue that GN is a reflection of structural object case: it is assigned in syntax, then translated to morphological genitive case at PF and, finally, realized at Vocabulary Insertion. This is not the case of allomorphy. While allomorphy is restricted by locality and adjacency, GN can be long-distance: it can operate across non-finite clauses. See Sigurðsson and Šereikaitė 2024 for a detailed proposal on how to technically implement a three-layered approach to case. Also see Spencer 2006 arguing that in Chukchi syntactic ergative case can be realized as a morphological locative or instrumental.

(105) mait-in-ti tav-e
feed-CAUS-INF you-ACC
'to feed you'

(106) tav-o/*tav-ęs mait-in-toj-as
you-GEN.POSS/you-GEN.NPOSS feed-CAUS-AGN-NOM.M.SG
'one who feeds you', 'one who is your provider'

Unlike CENs (recall the canonical pattern in 93), result nominals disallow GEN.NPOSS as in (107) (see Sect. 2.1 for tests distinguishing CENs and result nominals), but allow GEN.POSS as in (108). The DP with GEN.POSS is interpreted as a possessor. Result nominals can include verb phrases, but exclude Voice (Alexiadou 2009), and, as expected, disallow GEN.NPOSS.

(107) * dažni man-ęs/straipsni-ų egzamin-ai
frequent me-GEN.NPOSS/paper(M)-GEN.PL exam(M)-NOM.PL
Lit. 'frequent exams of me/papers'

(108) dažni man-o egzamin-ai
frequent me-GEN.POSS exam(M)-NOM.PL
'my frequent exams'

Simple nominals like *Maria's portrait of you* lack verbal properties (see Baker 2015). Unlike CENs, Lithuanian simple nominals with one genitive DP allow only GEN.POSS as in (109). This DP can be interpreted as a possessor or as a complement of the nominal. Adding a second genitive DP to this nominal yields ungrammaticality as in (110).

(109) tav-o/*tav-ęs portret-as
you-GEN.NPOSS/you-GEN.POSS portrait(M)-NOM.SG
'your portrait/a portrait of you'

(110) * Petr-o tav-o/tav-ęs portret-as
Petras(M)-GEN.SG you-GEN.NPOSS/you-GEN.POSS portrait(M)-NOM.SG
'Petras' portrait of you'

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

Baker's analysis is not applicable to Lithuanian CENs. The two genitives in Lithuanian cannot be viewed as unmarked cases because GEN.POSS and GEN.NPOSS

represent syntactically different cases. An alternative view could be that GEN.POSS is a type of unmarked case whereas GEN.NPOSS is a type of dependent case in nominalizations. For this analysis to work, the two DPs would need to be in the same domain. Nevertheless, I have argued that GEN.POSS is assigned in the PossP domain, whereas GEN.NPOSS is assigned in the n_{VoiceACT}P domain which, as pointed out by a reviewer, contains heads that check case independently of each other.

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

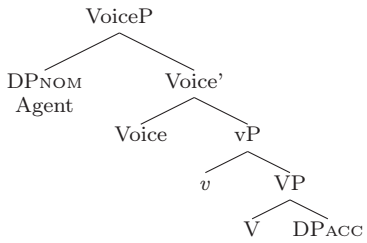
5 Voice bundling and the flavours of Voice in CENs

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

5.1 Voice Bundling

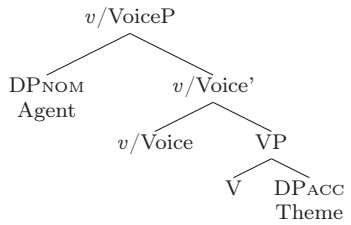
A Voice-bundling parameter was introduced by Pylkkänen (2002, 2008). Some languages, for example Finnish (Pylkkänen 2008), Hiaki (Harley 2013), or Acehnese (Legate 2014), are Voice-splitting: they have separate vP and VoiceP projections in verbal clauses as in (111a).[30] As mentioned in Sect. 2.3.1, 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; Pylkkänen 2008; Harley 2013; Legate 2014). In this group of languages, Voice and v function independently of each other, and could be encoded by different morphemes. In Voice-bundling languages like Ch'ol (Coon and Preminger 2012), Persian (Folli et al. 2005; Harley 2017) or Italian (Folli and Harley 2005, 2007), we find a single v/Voice projection as in (111b). v/VoiceP serves all functions that v and Voice would perform independently. Hence, the assignment of accusative case, the introduction of an external argument or causative semantics as well as verbalization are subsumed under one head, v/Voice. According to Harley 2017, if we assume that one terminal node is represented by one morpheme, then the v/Voice head should be expressed by a single morpheme rather than two.

(111) a.



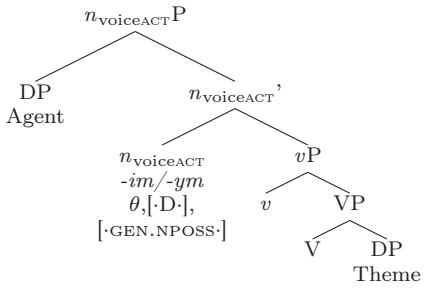
[30] As mentioned by Harley 2017, the idea that different functions can be encoded by different heads has also been proposed earlier by postulating the Split-IP parameter, according to which, there should be one projection for agreement and another one for tense, see Thráinsson 1996; Bobaljik and Thráinsson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

b.



Šereikaitė 2021 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 (112)[31] (see Punske 2010, 2012 for a similar approach), which is the type of head that is listed in the pre-syntactic lexicon (see Giorgi and Pianesi 1997 for bundling in the lexicon). In Distributed Morphology terms (Embick 2015), this would be List 1. I enrich the typology of Voice by showing that Voice-bundling can be crosscategorial: the features from the nominal domain and those from the verbal domain can be realized on a single head (see Panagiotidis 2015 for heads bearing both nominal and verbal features). This goes against H Á. Sigurðsson 2009's claim that bundling needs to be restricted to a single domain.

(112)



In Sect. 2.3.1, I argued that CENs have a thematic Voice, which is non-verbal. CENs also must contain a head which nominalizes the structure. I suggest that the functions of these heads are represented by a single n_{voiceACT} projection. The head of this projection is expressed by a single morpheme, the suffix *-im/-ym*, which marks nominalizations. The n_{voiceACT} head nominalizes the verbal structure, just like a regular *n* head would. CENs lack the properties of an ergative construction and display characteristics parallel to those of an active transitive construction with a NOM-ACC marking. Given the existing parallels between the nominal and verbal domains, I have proposed that just like an active thematic Voice, n_{voiceACT} also assigns an external argument θ-role to a DP in Specn_{voiceACT}P (Sect. 2).[32] This head also assigns structural object case to the theme argument (Sects. 3 and 4).

Under this approach, n_{voiceACT}P bears the properties of an active Voice. However, CENs have been argued to have a passive Voice, which is a type of thematic VoiceP that lacks an external argument projected in its specifier (e.g., Alexiadou 2001, 2009, 2017; Borer 2001; also Bruening 2013 for a related proposal; for earlier discussions see Grimshaw 1990). A striking property of Lithuanian CENs is that they resist

[31]The tree in (112) is a simplified version that does not include movement.

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

passivization: they are incompatible with a type of Voice that lacks a projected agent, which, as I show below, supports the Voice-bundling analysis.

The first argument for subsuming the functions of Voice and *n* under one projection comes from the lack of Voice morphology. If a Voice head had its own projection distinct from *n*P, then we should find a morphological reflection of it. Passive morphology is a reflection of a thematic Voice and can be found in CENs across languages showing a Voice-splitting behavior (e.g., Turkish (Comrie 1976), Serbian (Bašić 2010); also subject nominalizations in Oshiwambo (Lee and Ndapo 2025) and Xhosa (Mletshe 2010); Hiaki nominals (Harley 2020)).[33] In Lithuanian, the passive suffixes are *-m/-t* as in (113).[34] Passive morphology is ungrammatical in CENs as in (114) which is expected under the Voice-bundling analysis. CENs lack Voice morphology, and therefore exclude the type of VoiceP that is realized separately from an *n*P.

(113) Triuši-ai buv-o aug-in-*t*-i Petr-o.
rabbit(M)-NOM.PL be-PST.3 grow-CAUS-PPP-NOM.M.PL Petras(M)-GEN.SG
'The rabbits were raised by Petras.'

(114) Petr-o triuši-ų aug-in-*(*t)*-im-as
Petras(M)-GEN.SG rabbit(M)-GEN.PL grow-CAUS-PPP-NMLZ-NOM.M.SG
'Petras' raising of rabbits'

The second argument for my proposal comes from CENs' inability to passivize. 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 verbal clauses, a *v* head performs the functions of *v* and Voice, and is a reflection of a light verb. This complex head comes from the lexicon (pc. Heidi Harley). Furthermore, this head cannot participate in passives that require the demotion of an agent (Folli et al. 2005). If one of the functions of *v*, for example the introduction of an agent, disappears, then this light verb *dâdan* 'to give' (115a) is replaced by a different light verb *xordan* 'to collide' as in in (115b), which expresses a passive-like meaning. If a language lacks a separate VoiceP, then this language will not exhibit a true passive (Harley 2017). This holds true for Italian in which light verbs encode the functions of Voice and *v*, and consequently cannot be passivized (Folli and Harley 2007, 2013).

(115) a. tim-e mâ unâro shekast dâd
team-EZ we them defeat gave
'Our team defeated them.'

[33]Some CENs may lack passive morphology. A reviewer points out that the absence of passive morphology may not be informative. English gerunds contain an active Voice head, which has no overt morphological marking. English CENs have a passive Voice, which is morphologically null. Voice in both constructions is an independent projection and has no special morphological marking. For similar facts in Hebrew nominalizations with an accusative object, and those with a genitive object see Ahdout 2021. Thus, this test should be interpreted with caution. The lack of passive morphology in Lithuanian CENs aligns with my other arguments in favor of the Voice-bundling approach, including the absence of a passive Voice.

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

b. tim-e mâ az unâ shekast xord
team-EZ we of they defeat collided
'Our team was defeated by them.' (Adapted from Harley 2017, 7–8)
Lit. 'Our team encountered defeat from them.'

If the functions of *n* and an active Voice are introduced by one head coming from the pre-syntactic lexicon, then passivization should be impossible in CENs. We have already seen that no passive Voice morphology is possible in Lithuanian CENs in (114) suggesting that they lack a passive Voice. Further evidence comes from case marking. 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 (116).

(116) a. Tu mane palaik-ei.
you.NOM me.ACC support-PST.2SG
'You supported me.'

b. Aš buv-au tav-o palaiko-m-as.
I.NOM be-PST.1.SG you-GEN.POSS support-PRPP-NOM.M.SG
I was supported by you.'

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, (117). The examples below include two positions for the agent: a postnominal position and a prenominal one. Furthermore, CENs with one overt DP, which is a theme and has GEN.POSS, are not possible, as was established in Sect. 4, (see ex. 89–90). These findings suggest that Lithuanian CENs lack a passive Voice, which otherwise should be expected if a thematic VoiceP and *n*P were separate projections.

(117) a. * tav-o man-o palaik-ym-as daugybę metų
you-GEN.POSS me-GEN.POSS support-NMLZ-NOM.M.SG many years
Intended: 'support of me by you for many years'

b. * man-o palaik-ym-as tav-o daugybę metų
me-GEN.POSS support-NMLZ-NOM.M.SG you-GEN.POSS many years
Intended: 'support of me by you for many years'

In passives of verbal clauses without a *by*-phrase, the agent is not syntactically projected: it cannot bind anaphors or control (Bruening 2013; Legate 2014; for Lithuanian see Šereikaitė 2022). In contrast, some studies suggest that CENs without a *by*-phrase have a syntactically projected null external argument, roughly equivalent to PRO, (Roeper 1987; Sichel 2009, 2010; Bruening 2013). Lithuanian CENs lend support to this observation. Unlike passives, they have a null projected agent.

CENs have the properties of an active transitive construction: they have a null projected external argument and a theme grammatical object. The null external argument can be interpreted as a generic, impersonal *one/you* or as a little *pro* if there is a previously mentioned linguistic antecedent. The syntactic presence of the null agent is signaled by the agent's ability to bind the reflexive non-possessive subject-oriented anaphor *sau* in adjunct position in (118). The theme functions like a grammatical object in that it bears a grammatical object case, GEN.NPOSS.

(118) [Toks IMP$_i$ man-ęs$_j$ palaik-ym-as vien tik dėl
such me-GEN.NPOSS support-NMLZ-NOM.SG only just because.of
naudos sau$_{i/*j}$] yra nepriimtinas.
benefit self.DAT be.PRS.3 unacceptable
'Such support of me for reasons that are beneficial for oneself is unacceptable.'

The implicit agent binds the reflexive anaphor, which is a grammatical object, as in (119). If the null agent can bind an anaphor, then it means that it is syntactically projected in the structure. The theme appears in GEN.NPOSS as expected.

(119) [Nuolatinis IMP$_i$ sav-ęs$_i$ palaik-ym-as] duod-a
constant self-GEN.NPOSS support-NMLZ-NOM.M.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.'[35]

Lastly, the presence of the agent is also supported by the fact that it can bind the reciprocal *each other* as in (120).

(120) [Toks išskirtin-is IMP$_i$ vienas kit-o$_i$
such exceptional-NOM.M.SG one another-GEN
palaik-ym-as daugybę metų] atneš-ė daug
support-NMLZ-NOM.M.SG many years bring-PST.3 much
naud-os.
support(F)-GEN.SG
'Such exceptional support of each other for many years brought a lot of benefits.'

I conclude that Lithuanian CENs have a projected external argument and a theme grammatical object, and therefore these constructions do not bear the properties of passives.[36] Under the passivization of CENs, we predict that the external argument should be suppressed, contrary to what we find in Lithuanian CENs. The failure to undergo passivization indicates that the introduction of the agent and the ability to nominalize are represented by a single head in Lithuanian CENs, namely $n_{\text{voice}_{\text{ACT}}}$.

[35] https://www.alfa.lt/straipsnis/50015751/septynios-priezastys-myleti-save Accessed on April, 30, 2021.

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

Another test for Voice-bundling vs. splitting in CENs is agent-oriented adverbs. In Voice-splitting languages, *n*P and VoiceP are independent projections, agent-oriented adverbs that attach at the level of a verbal VoiceP should be possible.[37] In Voice-bundling languages, if $n_{voice_{ACT}}$P is a single head, then only agent-oriented adjectives should be available since this head is nominal. Indeed, Lithuanian CENs allow agent-oriented adjectives, but disallow agent-oriented adverbs, which suggests that VoiceP is not an independent projection, see ex. (34–35), repeated here in (121–122).

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

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

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

Lastly, in the nominal domain, *n* can attach at different levels in Voice-splitting languages, for example *n*P can appear above a high verbal AspP, which dominates VoiceP (Alexiadou 2017).[38] In Lithuanian, the verbal external layers above Voice, like a higher AspP or a ModP, are absent from CENs (see Sects. 2.3.2 and 2.3.3). This is consistent with the Voice-bundling approach: the complex $n_{voice_{ACT}}$ head comes from the lexicon, and thus a higher verbal projection that typically originates above a VoiceP cannot be added to the structure. If a higher AspP were present in CENs, it would be below $n_{voice_{ACT}}$P and above *v*P.[39] This would mean that this AspP originates lower than the projection that introduces the functions of Voice in general. However, this is not what we find in the verbal domain: the *-dav* suffix, which stands for the higher AspP, attaches to the auxiliary and therefore, originates higher than the passive morphology associated with Voice, which appears on the lexical verb as in (41), repeated in (123).

[37] Agent-oriented adverbs are possible in Greek (Alexiadou 2001) and Hebrew (Borer 2001) nominalizations.

[38] In Voice-splitting languages, it is possible to find projections, like a high ApplP, that occurs between VoiceP and *v*P in verbal clauses, see Harley 2013.

[39] A reviewer mentions that the impossibility of having ModP and AspP between *n* and Voice can be accounted for by the selectional property of *n*: in Lithuanian CENs, *n* selects for VoiceP rather than AspP. Under this approach, *n*P and VoiceP would be independent projections. However, this analysis would predict that agent-oriented adverbs that attach at the level of VoiceP should be possible in Lithuanian CENs, which is not the case as in (121).

(123) Automobili-ai bū-dav-o dažo-m-(*dav)-i
car(M)-NOM.PL be-HAB-PST.3 paint-PRPP-HAB-NOM.M.PL
'The cars used to be painted.'

To sum up, the availability of agent-oriented adjectives, the lack of independent Voice morphology, the absence of passivization, and projections that typically intervene between nP and VoiceP constitute evidence for the presence of the $n_{\text{voice}_{\text{ACT}}}$P in CENs. CENs behave in many respects like main verbal clauses apart from the absence of some high functional projections and a full set of Voice flavors. 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 NOM-ACC case alignment found in active transitive verbal clauses.

The identification of Voice-bundling in CENs indicates that syntactic atoms, building blocks, can come in bundles.[40] There are different options for where bundling can take place: the lexicon, syntax, or post-syntax in various languages. The Lithuanian case provides evidence for complex bundles coming from the lexicon. Another contribution of this study is to do with the 'domain homogeneous restriction'. H Á. Sigurðsson (2009) suggests that bundled features are 'domain homogeneous': for example, the CP domain features bundle only with the features from that domain, the same applies for the features in the verbal region. Voice is part of the verbal domain and has been shown to bundle with the features of other verbal heads like v or Cause (Pylkkänen 2002; Harley 2017). Nevertheless, this is not a necessary component of bundling. The domain homogeneous restriction does not hold in Lithuanian CENs: the features of Voice can be bundled with those of n, which is part of the nominal domain.

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

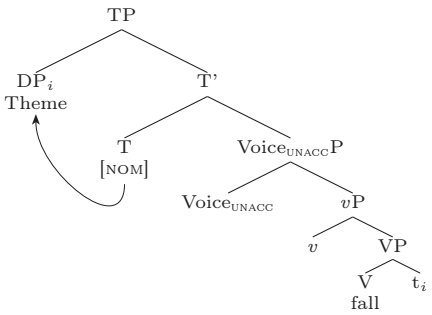
[40]This finding is problematic for cartographic approaches (Cinque 1999) and Nanosyntax (Caha 2006; Starke 2009) where it is assumed that each feature has its own projection.

5.2 Flavors of Voice in CENs

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

Some studies distinguish two flavors of an active Voice (Wood 2015; Alexiadou et al. 2015; Šereikaitė 2022): a thematic Voice and a non-thematic one. A thematic Voice assigns an external argument θ-role to the agent and is responsible for assigning accusative in verbal clauses with transitive predicates (see Sect. 3, ex. (67) and Sect. 4). Verbal clauses with unergatives like *work* also contain a thematic Voice with an external argument in SpecVoiceP, but lack a theme grammatical object. Verbal clauses with unaccusative predicates like *fall* contain a non-thematic active Voice, which lacks an external-argument θ-role and does not assign accusative case as in (124). The theme argument raises to SpecTP and receives nominative case from T.[41]

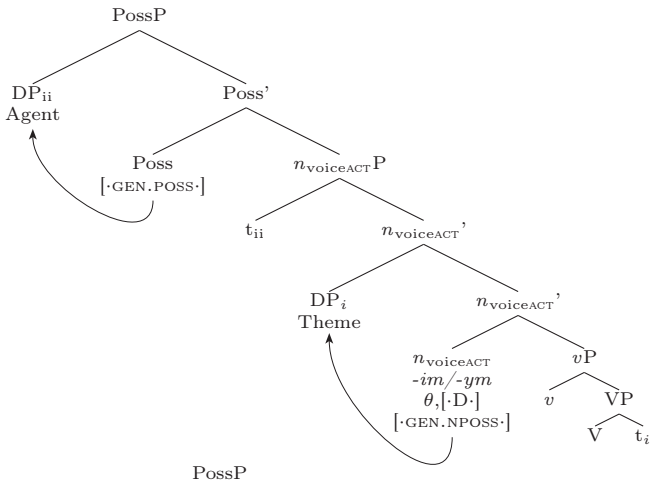
(124)



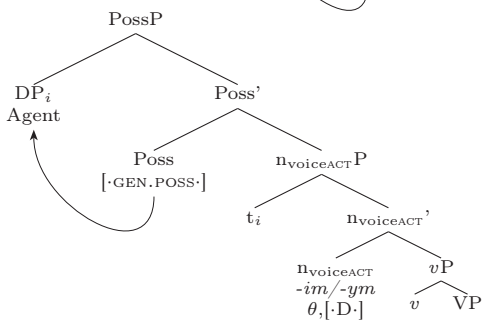
CENs with transitives and unergatives will have the n_{voiceACT}P as in (125) and (126). The agent introduced in Specn_{voiceACT}P will raise to PossP and receive GEN.POSS. CENs with unergatives lack a theme argument, whereas CENs with transitives do not. The n_{voiceACT} head of CENs with transitives will assign GEN.NPOSS to the theme under movement to Specn_{voiceACT}P. The verbal complex will attach to n_{voiceACT} encoded by the suffix *-im/-ym* via head movement forming a deverbal noun. This derives the correct word order: both the agent and the theme will precede the deverbal noun.

[41] A type of non-thematic Voice with unaccusatives is attested in Lithuanian impersonal constructions in which the Voice head is realized by passive morphology and requires its specifier to be filled by an implicit theme (see Šereikaitė 2022). The non-thematic Voice in (124) does not require a specifier.

(125)



(126)



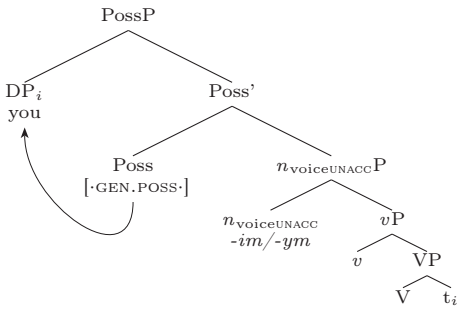
The structure of CENs with unaccusatives in (127) has a $n_{\text{voice}_{\text{UNACC}}}$P as in (129) whose head is a representation of n that nominalizes the structure and that of an active non-thematic Voice which is found in unaccusative verbal clauses as in (124). This head differs from a thematic Voice in that it does not assign an external argument θ-role, and it lacks a specifier.[42] It also does not assign a grammatical object case, namely GEN.NPOSS to the theme. The theme must precede the deverbal noun as in (127–128), but it originates low in the structure in (129). To derive the correct word order, I propose that the theme raises to SpecPossP and receives GEN.POSS case from the Poss head.

(127) tav-o krit-im-as nuo kėdės
you-GEN.POSS fall-NMLZ-NOM.M.SG from chair
'your falling from the chair'

(128) * krit-im-as tav-o nuo kėdės
fall-NMLZ-NOM.M.SG you-GEN.POSS from chair
'your falling from the chair'

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

(129)



6 Conclusion

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

This study has also contributed to the Voice-bundling parameter. In many studies that assume the presence of Voice in CENs, Voice is viewed as an independent projection (e.g., Alexiadou 2017; Bruening 2013). The properties of Voice are represented by an independent projection, namely VoiceP, in Lithuanian verbal clauses. I have argued that in the nominal domain, the functions of Voice and the properties of *n* are subsumed under one projection. The presence of agent-oriented adjectives, the lack of independent Voice morphology, the absence of passivization, and projections that typically intervene between *n*P and VoiceP constitute evidence for the $n_{\text{voice}_{\text{ACT}}}$P in CENs. The discovery of $n_{\text{voice}_{\text{ACT}}}$P shows that some heads can bear features from different domains (in line with Panagiotidis 2015), and these complex bundles of features come from the lexicon. Future research should explore what other mixed heads we could find in human language.

Unlike many languages, Lithuanian shows a NOM-ACC case alignment in CENs. The question is what in the grammar of Lithuanian specifically distinguishes it from other languages. According to Alexiadou (2017), an ergative case pattern in CENs results from the fact that *n* selects for a passive-like Voice that lacks a projected external argument. This creates a type of syntactic environment where only one structural case can be assigned in the *n*P domain. However, *n* selecting for the passive Voice is not the only option that we find across languages. For example, Ahdout (2021) argues that in

Hebrew, there are at least two options when it comes to nominalizations: i) CENs with an accusative object and ii) CENs with a genitive object. The former has an *n* that selects for an active Voice with a projected external argument in its specifier, and an accusative object; and the latter has a passive Voice (with no specifier) and a genitive object. In Hebrew, VoiceP is not bundled with *n*, it is an independent projection from an *n*P. The existence of these options suggests that if a language has active and passive verbal clauses, those verbal structures can be used as a basis for forming nominalizations. In some languages, the selectional properties of *n* are not as restricted as in other languages.

Lithuanian also allows an active Voice in CENs. I have extensively argued that the presence of this Voice allows for structural object case to be assigned to the theme of a transitive predicate in this construction. In general, this construction shows what looks like a NOM-ACC case alignment. Lithuanian exhibits bundling in CENs: *n* combines with an active Voice, the functions of these heads are bundled together and introduced under one head. If Lithuanian *n* combines with an active Voice, then the question is why it cannot be combined with a passive Voice. I have suggested that passive Voice is not available in Lithuanian CENs because of bundling (see Sect. 5). Following Harley's (2017) theory of bundling, the functions of *n* and an active Voice should appear and disappear together, resulting in a passive Voice being ungrammatical. I hypothesize that the bundling parameter, along with the selectional properties of *n*, may determine the type of Voice present in CENs.

In general, there is a lot of variation when it comes to how much verbal structure is available in nominalizations across languages. Different amounts of verbal structure yield different properties when it comes to case, the availability of adverbs, etc. While Greek, Lithuanian or Hebrew CENs allow Voice (bundled or not) and *v*P, CENs in other languages, like Icelandic, have a type of *n* that does not select for a *v*P, but instead directly combines with *v* (Wood 2023). *n*s found in agent nominalizations like *the finder of the wallet* also differ. For example, *n* in these constructions in English selects for a *v*P, whereas in Bantu languages, like Gĩkũyũ, *n* can select for an active VoiceP (Baker and Vinokurova 2009, also Lee and Ndapo 2025 for Oshiwambo). Furthermore, a D head in Spanish verbal infinitives selects for a TP, whereas a D head in Romanian supines takes a high AspP (Alexiadou et al. 2011). Future research should investigate why some *n* or D heads are incompatible with some verbal structures in some languages but not in others. Sichel (2010) notes that nominalizations are also restricted when it comes to the type of event they can encode. Thus, the relationship between the verbal structure and the type of event nominalizations can host could be another avenue to explore that would perhaps allow us to understand these restrictions better.

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Appendix A

Attested and elicited examples with two genitive DPs:

(130) a. Kolumb-as atrad-o Amerik-ą.
Columbus(M)-NOM.SG discover-PST.3 America(F)-ACC.SG
'Columbus discovered America.'

b. [*Kolumb-o* *Amerik-os* *atrad-im-as*]
Columbus(M)-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)

(131) 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)

(132) 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.PL
nusibod-o.
bored-PRS.3
'Everybody is bored with *your writing of letters.*' (Christen 2001, 509)

(133) 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 persons' collection of small donations through phone'[43]

(134) 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 tile(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)'[44]

[43]https://e-seimas.lrs.lt Accessed on 10-20-2021

[44]http://www.kazlusporto.puslapiai.lt/OSS/10-pasaulio-oss-cemp-ai.htm Accessed on 10-20-2021

(135) [*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.'

(136) [*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.PL make.afraid-PST.3
'*Jonas's driving of the car quickly in mountainous areas* made everyone scared.'

(137) [*Savavališk-as kaimyn-o mišk-o kirt-im-as*]
willful-NOM.M.SG neighbor(M)-GEN.SG forest(M)-NOM.SG cut-NMLZ-NOM.M.SG
laiky-t-as vagyst-e.
consider-PPP-NOM.M.SG theft(F)-ISN.SG
(i) '*The willful neighbor's cutting of a forest* was considered to be a theft.'
(ii) '*The willful cutting of a neighbor's forest* was considered to be a theft.'[45]

(138) Vien-u ryškiausi-u Klaipėd-os kultūrini-u
one-INS.M significant-INS.M.SG Klaipėda(F)-INS.SG cultural-INS.M.PL
įvyki-u tap-o [*kultini-o režisieri-aus*
event(M)-INS.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.'[46]

(139) 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(M)-GEN.SG
situacij-os.
situation(M)-GEN.SG
'However, *the person's self-evaluation* isn't dependent on work/no-work situation.' (Pakerys 2006, 139)

(140) Ar nuo Kopernik-o laik-ų prasidėjęs [*žmog-aus*
if from Copernicus-GEN time-GEN.PL beginning person(M)-GEN.SG
sav-ęs vert-im-as mažyt-e dulkel-e], jo
self.GEN.N-POSS transform-NMLZ-NOM.M.SG small-INS.SG dust-INS.SG his

[45]https://www.vle.lt/straipsnis/paprotine-teise/ Accessed on 11-15-2021
[46]https://www.delfi.lt/news/daily/lithuania/metai-klaipedai-pazere-staigmenu-ir-pergaliu.d?id=5742088 Accessed on 10-16-2022

nor-as save menkin-ti nėra nepaliaujam-ai
wish-NOM.SG self-ACC diminish-INF NEG.be.PRS.3 ceaseless-ADV
progresuojant-is proces-as?
progressing-NOM.M.SG process(M)-NOM.SG
'However, since the time of Copernicus, has *humanity's self-perception as a tiny speck*, its desire to belittle itself, not been an unceasingly progressive process?' (Pakerys 2009, 136)

Appendix B

Examples with two morphologically distinct genitives:

(141) Tarkime, aš gali-u bū-ti jautr-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...'[47]

(142) [*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
Lit. '*The level of your loving me* falls down.'[48]

(143) eilinis tav-o man-ęs citav-im-o fail'as
ordinary you-GEN.POSS me-GEN.NPOSS cite-NMLZ-NOM.M.SG fail(M)-NOM.SG
(i) 'your ordinary failure of citing me'
(ii) 'an ordinary failure of you citing me'[49]

(144) 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.'[50]

[47] https://www.linkedin.com/pulse/apie-vadovC5%B3-nesaugumo-jausm%C4%85-kaip-tvirt%C4%97ti-tomas-misiukonis/?trk=read$_r$elated$_a$rticle-card$_t$itle, Accessed on 11-15-2021

[48] https://www.lrytas.lt/gyvenimo-budas/seima/2012/05/10/news/dukros-laiskas-mamai-kalta-tik-as—nuolat-patenku-i-beda-pridarau-nesamoniu–5296375 Accessed on 11-15-2021

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

[50] https://mokslai.lietuviuzodynas.lt/psichologija/saves-vertinimas-2 Accessed on 11-15-2021

(145) Man-au, [*man-o* *sav-ęs* *ieškoj-im-as*]
think-PRS.1SG me-GEN.POSS self-GEN.NPOSS search-NMLZ-NOM.M.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(M)-LOC.SG
Lit. 'I think that *my searching of myself* is reflected in both my music and my image.'[51]

(146) Esant toki-ai situacij-ai, [*tav-o* *sav-ęs*
being such-NOM.F.SG situation(F)-NOM.SG you-GEN.POSS self-GEN.POSS
vertin-im-as] tur-i bū-ti didžiausias.
evaluate-NMLZ-NOM.M.SG have-PRS.3 be-INF biggest
Lit. 'In this type of situation, your evaluation of yourself must be the biggest.'[52]

[51] https://www.delfi.lt/moterys/asmenybes/londone-gyvenancia-monika-linkyte-nustebino-zmoniu-elgesys-buvau-nepratusi.d?id=79189715 Accessed on 11-15-2021

[52] https://lt.bmwmarine.net/how-tell-guy-you-like-him Accessed on 11-15-2021