

Genuine Verb stranding vP-ellipsis in Lithuanian

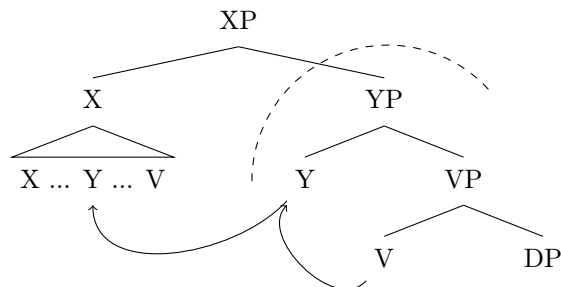
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1 Introduction

(1) Verb stranding ellipsis (VSE):



• It involves:

- ellipsis of the verbal projection (vP/AspP/TP);
- head movement of the verb to a higher projection (Asp/T/Pol).

(2) Irish

A. A-r sciob an cat an t-eireaball den luch?
Q.PST cut.PST the cat the tail off-the mouse?
‘Did the cat cut the tail off the mouse?’

B. sciob _.
cut.PST
‘Yes.’

(McCloskey, 2017)

• VSE has been investigated in many languages:

- *Irish* (McCloskey, 2011, 2017), *Scottish Gaelic* (Thoms, 2016, 2018), *Russian* (Gribanova, 2013, 2017a), *Hungarian* (Lipták, 2012, 2019), *Portuguese* (Santos, 2009; Cyrino & Lopes, 2016), *Greek*

(Merchant, 2018), *Uzbek* (Gribanova, 2019) and *Swahili* (Ngonyani, 1996) among others.

• Crosslinguistic investigation of VSE answers two important questions:

1. What are the possible sizes of the ellipsis site in VSE?
2. What is the nature of the verbal identity requirement (VIR), which holds in a subset of languages with VSE?

• **Question 1** - The size of the ellipsis site:

- as large as TP (TP-VSE) in *Hungarian* (Lipták, 2012); *Portuguese* (Martins, 2016); *Russian* (Gribanova, 2017a); *Irish* (McCloskey, 2017);
- as small as vP (vP-VSE) in *Hungarian* (Lipták, 2013); *Russian* (Gribanova, 2017a); *Hebrew* (Goldberg, 2005).

• Landau (2019b, 2019a) argues for the crosslinguistic unavailability of vP-VSE, which he proposes follows from locality constraints on interactions between head movement and ellipsis.

• **My Claim:** Lithuanian VSE involves vP-ellipsis² and presents a counter-example to Landau’s proposal.

• **Question 2** - The nature of the Verbal Identity Requirement (VIR):

- The VIR requires lexical identity of the extracted morphemes to their antecedent — the antecedent and stranded verb cannot be contrasted.
- Historically, assumed to follow from the interaction between verb head movement and ellipsis.
- holds in a subset of languages with VSE (*Irish* (McCloskey, 2017); *Scottish Gaelic* (Thoms, 2018); *Uzbek* (Gribanova, 2019))

• Two competing explanations for the VIR:

1. follows from the inability of verbs to host the pitch accent associated with focus more generally in these languages — this is independent from VSE (Merchant, 2018; Thoms, 2018);

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²For simplicity, I assume in Lithuanian an external argument introducing head, which here I call v. See Šereikaitė (2016) for a more articulated vP structure.

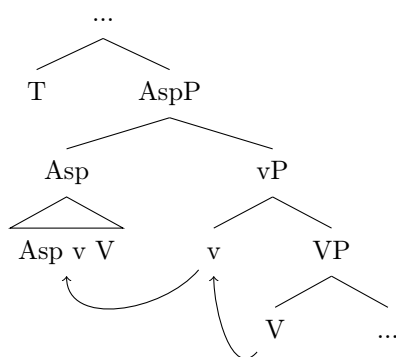
2. or from the postsyntactic nature of the head movement and its interaction with ellipsis licensing in VSE (Schoorlemmer & Temmerman, 2012; McCloskey, 2017; Gribanova, 2017b, 2019).

- **My Claim:** The first explanation cannot account for the behavior of Lithuanian VSE; the second one can.
- **Today's Topic:** Genuine verb stranding vP-ellipsis in Lithuanian:
 - Lithuanian clause structure (§2)
 - Genuine VSE versus alternative analyses (§3)
 - Answer 1: verb stranding vP-ellipsis (§4)
 - Answer 2: The VIR and post-syntactic head movement (§5)

2 Preliminaries: Lithuanian clause structure

- Lithuanian is a Baltic language with about 3 million speakers worldwide.
- It is generally assumed to be SVO.
- There are two necessary ingredients for VSE: vP-ellipsis and verb movement to a higher projection.
 1. Lithuanian has regular vP-ellipsis, stranding a modal or auxiliary (see appendix A).
 2. Lithuanian has V-to-v-to-Asp movement (see appendix A).

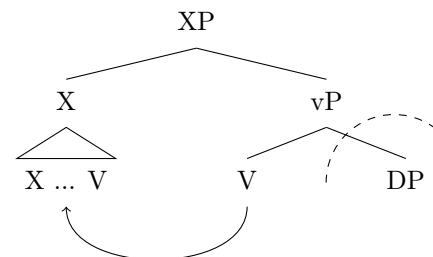
- (3) Assumptions about the Lithuanian clause structure:



3 VSE vs. argument ellipsis

- There exists an alternative analysis to VSE, called Argument Ellipsis (AE).

- (4) *Argument ellipsis (AE)*



- It involves the independent ellipsis of all verbal arguments.
- AE is a favored analysis of verb-stranding configurations in East Asian languages (Park, 1997; Hoji, 1998; Aoun & Li, 2008) and in Hebrew (Landau, 2018).
- **Prediction:** DPs, PPs, APs ... should be independently elidable more generally across the language.
- This is true of DPs and PPs in Lithuanian:

- (5) Ar Jonas supažindino Saulę su savo tėvais?
 Q J.NOM introduce.PST.3PS S.ACC with REFL.GEN parents.INS
 'Did Jonas introduce Saulė to his parents?'

- a. Taip, jis supažindino ją
 yes 3SG.M.NOM introduce.PST.3PS 3SG.F.ACC
 <su savo tėvais>. Jiems jai patiko.
 with REFL.GEN parents.INS 3PL.DAT 3SG.DAT like.PST
 'Yes, he introduce her (to his parents). They liked her.'
- b. Ne, jis nesupažindino <Saulę> su
 NEG 3SG.M.NOM NEG.introduce.PST.3PS S.ACC with
 savo tėvais. Ji nebuvo mieste vakar.
 REFL.GEN parents.INST. she NEG.be.PST.3SG city.LOC yesterday
 'No, he didn't introduce (Saulė) to his parents. She wasn't in the city yesterday.'

- c. Taip, jis supažindino <Saulę>
 yes 3SG.M.NOM introduce.PST.3PS S.ACC
 <su savo tėvais>.
 with REFL.GEN parents.INS
 ‘Yes, he introduced (Saulė to his parents).’

- **BUT:** Predicative adjectives, nominals, and resultatives **cannot** be independently elided in Lithuanian!

3.1 Predicative adjectives

- Predicative adjectives cannot be independently elided.³

- (6) *Vakar, Darius padarė Eglę nelaimingą, o
 Yesterday, D.NOM PERF.make.PST.3SG E.ACC unhappy.INS, but
 šiandien, tėvai padarė Rūtą <nelaimingą>.
 today parents.NOM PERF.make.PST.3PL R.ACC unhappy.INS)
 ‘Yesterday Darius made Eglė unhappy and today the parents made Rūta (unhappy).’

- Yet, they are interpreted in the ellipsis site when all the vP-internal material is elided together.

- (7) Vakar, Darius padarė Eglę nelaimingą, o
 Yesterday, D.NOM PERF.make.PST.3SG E.ACC unhappy.INS, but
 šiandien, tėvai padarė <ja nelaimingą>.
 today parents.NOM PERF.make.PST.3PL 3SG.ACC unhappy.INS
 ‘Yesterday Darius made Eglė unhappy and today the parents made (her unhappy).’

3.2 Predicative nominals

- Predicative nominals cannot be independently elided.

- (8) *Iš pradžių, jie nepaskelbė jo
 from first.GEN, 3PL.NOM NEG.PERF.announce.PST.3PL 3SG.GEN
 karaliumi, bet po to paskelbė jį
 king.INS but afterwards PERF.announce.PST.3PL 3SG.ACC
 <karaliumi>.
 king.INS.
 ‘At first, they didn’t declare him king, but afterwards they declared him (king).’

- Yet, they are interpreted in the ellipsis site when all the vP-internal material is elided together.

- (9) Iš pradžių, jie nepaskelbė jo
 from first.GEN, 3PL.NOM NEG.PERF.announce.PST.3PL 3SG.GEN
 karaliumi, bet po to paskelbė <jį karaliumi>.
 king.INS but afterwards PERF.announce.PST.3PL 3SG.ACC king.INS.
 ‘At first, they didn’t declare him king, but afterwards they declared (him king).’

3.3 Resultatives

- A similar pattern can be observed with resultatives.
- Because they are optional arguments, their omission does not result in an ungrammatical sentence, but one where the meaning contributed by the resultative isn’t available.

- (10) Mes nudažėme namą mėlynai ir kaimynai
 1PL.NOM PERF.paint.PST.1PL house.ACC blue.ADV and neighbors.NOM
 nudažė namą taip pat. Dabar, jis -
 PERF.paint.PST.3PL house.ACC also now 3sg.NOM COP
 raudonas.
 red.NOM
 ‘We painted the house blue and the neighbors painted the house too. Now, it’s red.’

- Yet, resultatives are interpreted in the ellipsis site when all the vP-internal material is elided together.

³Whether the predicate is an argument or part of a small clause, the conclusion that it cannot be independently elided still holds.

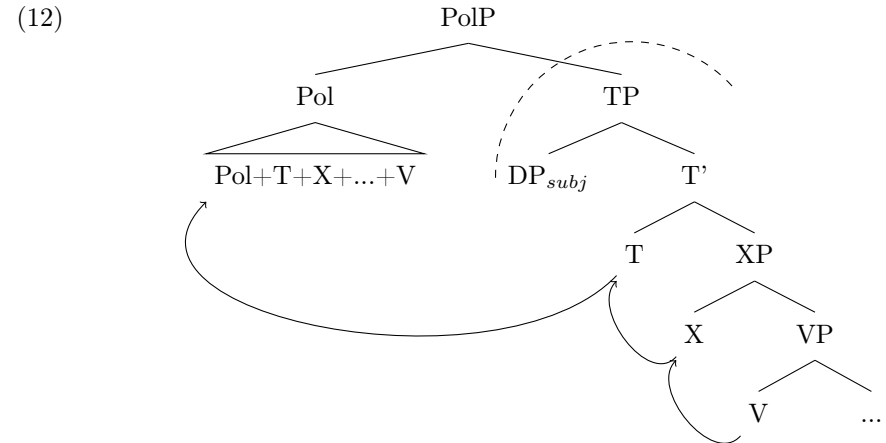
- (11) Mes nudažėme mūsų namą mėlynai ir
 1PL.NOM PERF.paint.PST.1PL 1PL.GEN house.ACC blue.ADV and
 kaimynai nudažė <jūsų namą mėlynai>.
 neighbors.NOM PERF.paint.PST.3PL 2PL.GEN house.ACC blue.ADV
 #Dabar, jis - raudonas.
 now 3sg.NOM COP red.NOM
 ‘We painted our house blue and the neighbors painted (their house blue) too. #Now it’s red.’

To summarise:

Analysis	Interpreted arguments in ellipsis site
AE	Only argument DPs and/or PPs
VSE	Anything internal to the ellipsis site: arguments, predicative nominals, adjectives, or resultatives

4 The size of the ellipsis site: vP

- Cross-linguistically, there have been two proposed loci of ellipsis for VSE: vP and TP.
 - Holmberg (2001) argued that Finnish had both types of ellipsis.
 - TP ellipsis was also proposed in Hungarian (Lipták, 2012), but then changed to vP ellipsis (Lipták, 2013).
 - Originally argued to be vP-ellipsis (Gribanova, 2013; Cyrino & Matos, 2005; McCloskey, 1991), analyses in Russian, European Portuguese, and Irish have since been updated to involve TP ellipsis (Gribanova, 2017a; Martins, 2016; McCloskey, 2017).
- One of the main arguments for TP-VSE over vP-VSE in these languages is observation that non-contrastive subjects must be elided with the other material.
- In analyses involving TP-VSE, the verb moves up to PolP/ Σ P just above TP. The subject is then elided with the rest of the TP. (Lipták, 2012; Gribanova, 2017a; McCloskey, 2017)

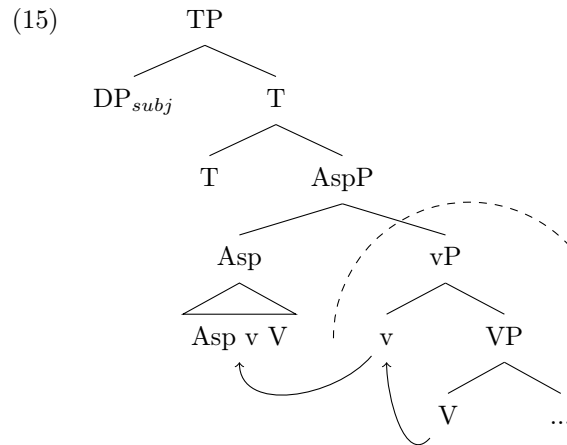


- Lithuanian non-contrastive subjects are in [spec,TP] (see Appendix B).
- **BUT:** unlike other languages, Lithuanian non-contrastive subjects are preferentially pronounced in VSE examples.⁴

- (13) Ar jie nudažė namą mėlynai vakar?
 Q 3PL.NOM PERF.paint.PST.3PL house.ACC blue.ADV yesterday
 ‘Did they paint the house blue yesterday?’
- a. Taip, jie nudažė <namą mėlynai>.
 yes 3PL.NOM PERF.paint.PST.3PL house.ACC blue.ADV
 #Dabar, jis - raudonas.
 now 3sg.NOM COP red.NOM
 ‘Yes, they painted (the house blue). Now it’s red.’
- (14) Iš pradžių Marija neatrodė laiminga, bet po to
 from first.GEN M.NOM NEG.seem.PST.3SG happy.INS, but afterwards
 ji atrodė <laiminga>.
 3SG.NOM seem.PST.3SG happy.INS
 ‘At first, Marija didn’t seem happy, but afterwards she seemed (happy).’

- Thus, the ellipsis site must be smaller than TP; since the verb moves to Asp, the ellipsis site must be vP.

⁴1st and 2nd person pronouns can undergo pro-drop, but the pro-drop conditions for 3rd person are much more restrictive (Ambrazas, 1997, p.718).



- Recently, Landau (2019b) has argued that many of the cases believed to be vP-VSE were actually AE, and furthermore, that vP-VSE does not exist crosslinguistically.⁵
- Lithuanian VSE presents a counter-example to the claim that vP-VSE does not exist.
- **The answer to Question 1: What is the size of the ellipsis site?**
 - Lithuanian has genuine vP-VSE.
 - Lithuanian vP-VSE is a counter-example to the claim that such configurations do not exist in the world's languages (Landau, 2019a, 2019b).

5 The nature of the verbal identity requirement

- Goldberg (2005) initially proposed the verbal identity requirement (VIR) as an identity condition on verbs in VSE constructions.
- It is also called 'the verbal identity condition' or 'the lexical identity condition on verb-stranding ellipsis'.

(16) Verbal Identity Requirement (VIR)

All morphosyntactic parts of the stranded verb which originated within the ellipsis site must match their antecedents.

5.1 The empirical status of the VIR

- This identity requirement was thought to be a defining property of VSE (Schoorlemmer & Temmerman, 2012; Van Craenenbroeck & Merchant, 2013; Lipták, 2015).
- Since, counter-examples have been found in many languages for which a VSE analyses have been argued.

(17) Hungarian

Én VETTEM drága autót, te meg ELADTÁL.
 I bought expensive car.ACC you VM sold
 'I BOUGHT an expensive car, and you SOLD one.'
 (Bánréti, 2007; Lipták, 2013)

- The VIR is no longer thought to be a property of VSE more generally (Gribanova, 2017a; Landau, 2018), but instead there are two groups of VSE languages, some with VIR and some without.
- There are three languages for which this identity condition is thought to hold: Irish (McCloskey, 2011, 2017), Scottish Gaelic (Thoms, 2016, 2018), and Uzbek (Gribanova, 2019).

(18) Irish

*Níor cheannaigh mé teach ariamh, ach dhíol.
 NEG-PST buy I house ever but sold
 'I have never bought a house, but I have sold one.'
 (McCloskey, 2017)

(19) Scottish Gaelic

A: An dh'ith Iain an càic?
 C-INTERR eat.PST.DEP Iain the cake
 'Did Iain eat the cake?'

B: *Shluig
 scoff.PST
 'He scoffed it' (lit. "scoffed")

(Thoms, 2016)

⁵Landau (2019a) proposes that the unavailability of vP-VSE results from the derivational timing of head movement and ellipsis licensing.

(20) Uzbek

- A: It sabzi-ni xomligicha g'aji-d-i-mi?
 dog carrot-ACC raw chew-PST-3-Q
 'Did the dog chew the carrot (while it was) raw?'
 B: *Yo'q, yut-d-i.
 no swallow-PST-3
 'No, he swallowed (it)' (Gribanova, 2019)

- Does the VIR follow from the interaction between head movement and ellipsis and if so, how do these languages differ from languages with VSE and no VIR?
- Is the VIR present in some languages for reasons independent of VSE?

5.2 The VIR in Lithuanian

- Verbal mismatch is only possible in cases of AE.

- (21) a. Vakar Andrius Liną apkabino, o šiandien
 Yesterday A.NOM L.ACC PERF.hug.PST.3SG, but Today
 pabučiavo ją.
 PERF.kiss.PST.3SG 3SG.ACC
 'Yesterday Andrius hugged Lina and today he kissed her.'
 b. Vakar Andrius Liną apkabino, o šiandien
 Yesterday A.NOM L.ACC PERF.hug.PST.3SG, but Today
 pabučiavo <Liną>.
 PERF.kiss.PST.3SG L.ACC
 'Yesterday Andrius hugged Lina and today he kissed (her).'
- (22) a. Žmonės jų nemėgo už šykštumą, bet
 People.NOM 3PL.GEN NEG.like.PST.3PL for stinginess.ACC, but
 garbino juos už pinigų.
 respect.PST.3PL 3PL.ACC for money.ACC
 'People dislike them for their stinginess, but respect them for their money.'
 b. Žmonės jų nemėgo už šykštumą, bet
 People.NOM 3PL.GEN NEG.like.PST.3PL for stinginess.ACC, but
 garbino <juos> už pinigų.
 respect.PST.3PL 3pl.ACC for money.ACC
 'People dislike them for their stinginess, but respect (them) for their money.' (Ambrazas, 1997, p. 594)

- In AE, we do not expect the VIR to exist, since there is no interaction between the verb and the ellipsis site.
- **In cases which I have argued must be VSE, the VIR is respected.**
- If the ellipsis site contains a predicative adjective or nominal, the verbs cannot mismatch.

(23) Predicative adjectives

- a. Iš pradžių ji neatrodė laiminga, bet
 from first.GEN 3SG.NOM NEG.seem.PST.3SG happy.INS but
 po to ji pasijautė laiminga.
 afterwards 3SG.NOM PERF.feel.PST.3SG happy.INS
 'At first, she didn't seem happy, but afterwards she became happy.'
 b. *Iš pradžių ji neatrodė laiminga, bet
 from first.GEN 3SG.NOM NEG.seem.PST.3SG happy.INS but
 po to ji pasijautė <laiminga>.
 afterwards 3SG.NOM PERF.feel.PST.3SG happy.INS
 'At first, she didn't seem happy, but afterwards she became (happy).'

- (24) a. Iš pradžių ji neatrodė laiminga, bet
 from first.GEN 3SG.NOM NEG.seem.PST.3SG happy.INS but
 po to ji atrodė <laiminga>.
 afterwards 3SG.NOM seem.PST.3SG happy.INS
 'At first, she didn't seem happy, but afterwards she seemed (happy).'
- b. Iš pradžių ji nepasijautė laiminga, bet
 from first.GEN 3SG.NOM NEG.PERF.feel.PST.3SG happy.INS but
 po to ji pasijautė <laiminga>.
 afterwards 3SG.NOM PERF.feel.PST.3SG happy.INS
 'At first, she didn't become happy, but afterwards she became (happy).'

(25) Predicative nominals

- a. Iš pradžių jis apsimetė viršininku,
 from first.GEN, 3SG.NOM PERF.REFL.pretend.PST.3SG boss.INS
 bet po to jis tapo viršininku.
 but afterwards 3SG.NOM become.PST.3SG boss.INS
 'At first, he pretended-being boss, but afterwards he became boss.'

- (26) b. *Iš pradžių, jis apsimetė viršininku,
 from fist.GEN, 3SG.NOM PERF.REFL.pretend.PST.3SG boss.INS
 but po to jis tapo <viršininku>.
 afterwards 3SG.NOM become.PST.3SG boss.INS
 ‘At first, he pretended-being boss, but afterwards he became (boss).’
- a. Iš pradžių, jis neapsimetė
 from first.GEN, 3SG.NOM NEG.PERF.REFL.pretend.PST.3SG
 viršininku, bet po to jis apsimetė
 boss.INS but afterwards 3SG.NOM PERF.REFL.pretend.PST.3SG
 <viršininku>.
 boss.INS
 ‘At first, he didn’t pretend-being boss, but afterwards he pretend-
 being (boss).’
- b. Iš pradžių, jis netapo viršininku, bet
 from first.GEN, 3SG.NOM NEG.become.PST.3SG boss.INS but
 po to jis tapo <viršininku>.
 afterwards 3SG.NOM become.PST.3SG boss.INS
 ‘At first, he didn’t become boss, but afterwards he became (boss).’

- Resultatives cannot be elided if the verbs mismatch. The sentence in (27b) is degraded because of the asymmetry between conjuncts. The resultative is no longer interpreted in the ellipsis site.

(27) Resultatives

- a. Marija nudažė margučius raudonai, o Darius
 M.NOM PERF.dye.PST.3SG Easter eggs.ACC red.ADV, but D.NOM
 nuspalvojo juos raudonai.
 PERF.color.PST.3SG 3PL.ACC red.ADV
 ‘Marija dyed the Easter eggs red, but Darius colored them in red.’
 (with a marker)
- b. ??Marija nudažė margučius raudonai, o
 M.NOM PERF.dye.PST.3SG Easter eggs.ACC red.ADV but
 Darius nuspalvojo <margučius-(raudonai)>.
 D.NOM PERF.color.PST.3SG Easter eggs.ACC red.ADV
 ‘Marija dyed the Easter eggs red, but Darius colored in (the Easter
 eggs red).’

- (28) a. Marija nudažė margučius raudonai. Darius
 M.NOM PERF.dye.PST.3SG Easter eggs.ACC red.ADV D.NOM
 taip pat nudažė <margučius raudonai>.
 also PERF.dye.PST.3SG Easter eggs.ACC red.ADV
 ‘Marija dyed the Easter eggs red. Darius also dyed (the Easter eggs
 red).’
- b. Marija nuspalvojo margučius raudonai. Darius
 M.NOM PERF.color.PST.3SG Easter eggs.ACC red.ADV D.NOM
 taip pat nuspalvojo <margučius raudonai>.
 also PERF.color.PST.3SG Easter eggs.ACC red.ADV
 ‘Marija colored in the Easter eggs red. Darius also colored (the
 Easter eggs red).’

- The VIR holds in Lithuanian VSE constructions, adding to the set of languages which respect this identity requirement.

5.3 The nature of the VIR in Lithuanian

5.3.1 The role of pitch accent

- Merchant (2018) and Thoms (2018) point out that there are additional requirements on the focus structure of mismatched extracted elements out of ellipsis sites (Rooth, 1992) which require in the case of VSE that the verb host pitch accent.
- If the verb is for some reason unable to host the pitch accent associated with focus, we expect the the utterance to be bad.
- Thoms (2018): finite verbs in T in Scottish Gaelic cannot host focal pitch accent.
- Merchant (2018), building on Bennett, Elfner, and McCloskey (2019): Irish verbs can’t host focal pitch accent.
- Unlike Goidelic languages, Lithuanian allows pitch accent on finite verbs more generally — without ellipsis (29) as well as in cases where pitch accent is associated with narrow focus (30).

- (29) A: Ar Žmonės jų nemėgo?
 Q People.NOM 3PL.GEN NEG.like.PST.3PL
 ‘Do People dislike them?’

B: Ne, jie GARBINO juos.
 no 3PL.NOM respect.PST.3PL 3PL.ACC
 ‘No, they RESPECT them.’

- Pitch accent associated with contrastive focus is perfectly fine on the verb with AE (30) .

- (30) Vakar Andrius Liną APKABINO, o šiandien
 Yesterday A.NOM L.ACC PERF.hug.PST.3SG, but Today
 PABUČIAVO <Liną>.
 PERF.kiss.PST.SG L.ACC
 ‘Yesterday Andrius hugged Lina and today he kissed (her).’
- (31) *Iš pradžių, jis APSIMETĖ viršininku, bet
 from first.GEN, 3SG.NOM PERF.REFL.pretend.PST.3SG boss.INS but
 po to jis TAPO <viršininku>.
 afterwards 3SG.NOM become.PST.3SG boss.INS
 ‘At first, he pretended-being boss, but afterwards he became (boss).’

- (30) and (31) are very similar, but the former is amenable to an AE analysis, while the latter involves VSE.
- This rules out the possibility that the VIR in this language follows from the inability of the verb to bear pitch accent.

5.3.2 Postsyntactic verb movement

- I propose, following Schoorlemmer and Temmerman’s (2012) analysis of the VIR, that this identity condition is the result of post-syntactic head movement in Lithuanian.
 - lexical items are marked for ellipsis in narrow syntax.
 - the output of narrow syntax is what is checked for semantic identity requirements on ellipsis sites.
 - If a verb in VSE moves post-syntactically, then it is still marked for ellipsis in narrow syntax and is subject to lexical identity requirements.
- More recently, Harizanov and Gribanova (2019) that phenomena described as head movement cross-linguistically should be separated into two different operations: *post-syntactic head amalgamation* and *regular syntactic movement* of heads.

- Gribanova (2016, 2017b, 2019) and McCloskey (2017) propose that the two types of VIR behaviors seen cross-linguistically could map to these two types of head movement.

VSE with

<i>Post-syntactic head amalgamation</i>	<i>regular syntactic movement</i>
respects the VIR following Schoorlemmer and Temmerman (2012)	follows analogous identity requirements to phrasal movement out of ellipsis (Merchant, 2001): lexical mismatch is permissible.

- Lithuanian verb movement to Asp has all the properties of post-syntactic amalgamation from Harizanov and Gribanova (2019):
 1. It causes a head to grow in size by adding morphemes;
 2. It respects the *head movement constraint* (Travis, 1984);
 3. It has no known semantic effects.
- **The answer to Question 2: What is the nature of the VIR?**
 - The VIR in Lithuanian vP-VSE does not follow from the unavailability of pitch accent on stranded verbs (as is the case for Irish and Scottish Gaelic).
 - Instead, the VIR follows from the post-syntactic nature of v-to-Asp movement in Lithuanian.
 - This is consistent with the proposal that there may be two types of head movement cross-linguistically, and that these two types map to different behaviors with regards to the VIR.

6 Conclusion

I have argued that:

- **Answer 1:** Lithuanian has genuine cases of vP-VSE, presenting a counter-example to the claim that such structures do not exist cross-linguistically.
- **Answer 2:** The VIR in Lithuanian does not follow from requirements on focus structure, but can be made to follow from post-syntactic nature of verb movement in this language. Distinguishing between post-syntactic and syntactic head movement in VSE can account for the current cross-linguistic and for the presence or absence of the VIR.

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Appendices

A Preliminaries for VSE

Two necessary ingredients for vP-VSE:

1. vP-ellipsis
2. verb movement out of the ellipsis site

A.1 vP-ellipsis

- Lithuanian has regular vP-ellipsis with auxiliary or modal stranding which behaves like constituent ellipsis.

(32) *Linguistic antecedent following ellipsis*

Jei tu moki <pataisyti duris>, padėk
if 2SG.NOM able.PRES.2SG PERF.fix.INF door.ACC help.IMP.2SG
man pataisyti duris.
1SG.DAT PERF.fix.INF door.ACC.
'If you know how to (fix the door), help me fix the door.'

(33) *Ellipsis across speaker boundaries*

A: Ar jis gali išplauti indus?
Q he.NOM able.PRES.3SG PERF.wash.INF dishes.ACC
'Can he wash the dishes?'

B: Ne, jis negali <išplauti indus>.
no he.NOM NEG.able.PRES.3SG PERF.wash.INF dishes.ACC
'No, he cannot (wash the dishes).'

(34) *Ellipsis across sentential and clausal boundaries*

Eglė buvo iškepusi pyragą. Man
E.NOM be.PST.3SG PERF.bake.PART.F.SG cake.ACC 1SG.DAT
atrodo, kad Marija pasakė, kad Saulė taip pat
seem.PRES.3SG that M.NOM PERF.say.PST.3SG that S.NOM also
buvo <iškepusi pyragą>.
be.PST.3SG PERF.bake.PART.F.SG cake.ACC
'Eglė was baking a cake. I think that Marija said that Saulė was (baking a cake) too.'

(35) *Island insensitivity*

Aš negaliu iškepti pyrago, ir
1SG.NOM NEG.able.PRES.1SG PERF.bake.INF cake.GEN and
zmonės kurie tikisi, kad aš
people.NOM C-WH.PL.NOM believe.PRES.3PL.REFL that 1SG.NOM
galiu <iškepti pyragą>, bus nuvilti.
able.PRES.1SG PERF.bake.INF cake.ACC be.FUT.3PL disappointed.NOM
'I can't bake a cake, and people who expect that I can (bake a cake) will be disappointed.'

A.2 Verb movement

- I assume that morphemes in a verb represent separate syntactic heads, joined together through head movement.
- **Claim:** There exists a head which can host aspectual morphemes and that is where verbs move to. I will call this head, tentatively, Asp.
- I will show that:
 1. the verb does not move as high as T;
 2. the verb moves to a projection between V and T called Asp.
- Pollock's (1989) tests applied to Lithuanian show that V does not move as high as T.⁶

⁶Pollock (1989) originally had four tests for V-to-T movement, but two of them are uninformative in Lithuanian. The first is the position of negation relative to the verb. In Lithuanian, sentential negation is always affixed to the verb. The second is verb and subject inversion in questions via T-to-C movement. Lithuanian marks yes-no questions with a question particle *ar* and does not use T-to-C movement.

(36) V-level adverbs

- a. Ji greitai skaitė knygą.
she.NOM quickly read.PST.3SG book.ACC.
'She quickly read the book.'
- b. ??Ji skaitė greitai knygą.
she.NOM read.PST.3SG quickly book.ACC.
'She read quickly the book.'

(37) Quantifier stranding:

- a. Mano draugai visi mėgsta Rimą.
My friends.NOM all.NOM like Rima.ACC
'My friends all like Rima'
- b. *Mano draugai mėgsta visi Rimą.
My friends.NOM like all.NOM Rima.ACC
'My friends like all Rima'

- Arguments in favor of verb movement to Asp:

1. There is separate aspectual morpheme from the verb root;
2. There is across the board movement in vP coordination.

- Lithuanian has a very rich verbal morphology which includes the set of perfective prefixes: *ap-*, *at(i)-*, *i-*, *iš-*, *nu-*, *pa-*, *par-*, *per-*, *pra-*, *pri-*, *su-*, and *už-* (Ramonienė & Pribušauskaitė, 2003).

- In addition to aspect, there are four other types of morphemes which can agglomerate to the beginning of a verb root:

- the reflexive morpheme *si-*;
- the optative particle *te-*, a reduced version of *tegul* meaning something like 'may' or 'only' in English;
- the 'progressive' particle *be-*, meaning something like 'still' in English;

– the negative particle *ne-*.

- These morphemes follow strict ordering constraints (Mathiassen, 1996), respecting the *head movement constraint* (Travis, 1984).

- (38) ne.be.pa.si.liek.a
NEG.PROG.PERF.REFL.remain.PRES.3SG
'He is no longer remaining'

- Šereikaitė (2016) demonstrates that perfective prefixes are introduced low, akin to Svenonius' (2004) lexical/superlexical distinction for Slavic prefixes.
- Arkadiev (2012) and Šereikaitė (2016) also argue that progressive aspect *be-* and optative *te-* are introduced in a higher position in the clause.
- I propose to use a similar clausal spine to that proposed for Slavic languages (Svenonius, 2005), where Asp is a projection between T and v and hosts certain aspectual prefixes.
- In Lithuanian, realizations of this Asp head would be, minimally, *te-* and *be-*.
- Lithuanian has across the board movement in vP coordination.⁷

- (39) Jis padėjo mėsą į šaldytuvą ir duoną
3SG.NOM PERF.put.PST.3SG meat.ACC to fridge.ACC and bread.ACC
ant stalo.
on table.GEN.
'He put the meat in the fridge and the bread on the table.'

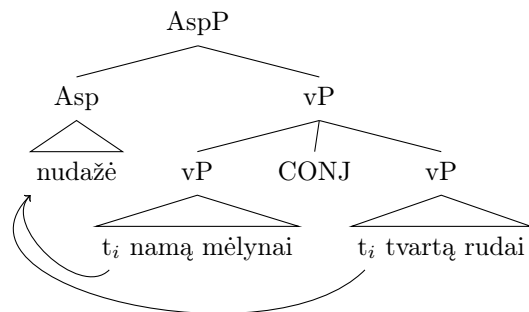
- (40) Marija nudažė namą mėlynai, o tvartą rudai.
M.NOM PERF.paint.PAST.3SG house.ACC blue.ADV, but barn.ACC
brown.ADV.
'Marija painted the house blue and the barn brown.'

⁷An argument against a gapping analysis of (39)-(40): Following Bailyn's (1995) argument against this analysis in Russian, taken from Bowers (1993), gapping is not possible when there are two remnant arguments in clause conjunction and, therefore, gapping should not be possible with two remnant arguments in vP conjunction.

(1) Lithuanian

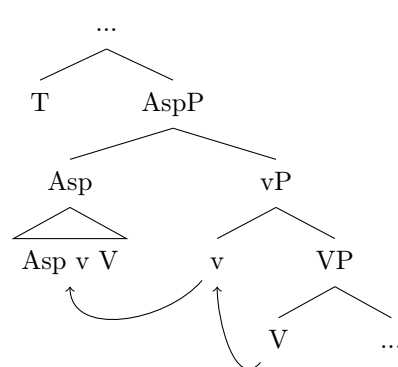
- *Marija nudažė namą mėlynai, o Darius tvartą rudai.
M.NOM PERF.paint.PAST.3SG house.ACC blue.ADV, but D.NOM barn.ACC brown.ADV.
'Marija painted the house blue and Darius the barn brown.'

(41)



- Since the verb does not move as high as T, it must move to an intermediate projection above vP, but within TP.
- Given the argument for the presence of AspP, I propose that the verb moves to AspP, following a similar proposal for Russian (Gribanova, 2013).

(42)



B Lithuanian Subjects

- To show that the subject is within TP, we must show that:
 1. The subject is above vP;
 2. The subject is in TP;
- The subject in Lithuanian is clearly above auxiliaries in regular vP ellipsis and, therefore, must be above vP more generally.

- (43) A: Ar ji buvo išplovusi indus?
 Q she.NOM be.PST.3SG PERF.wash.PART.F.SG dishes.ACC
 ‘Was she washing the dishes?’
- B: Taip, ji buvo <išplovusi indus>.
 yes she.NOM be.PST.3SG PERF.wash.PART.F.SG dishes.ACC
 ‘Yes, she was (washing the dishes).’

- Non-contrastive subjects are not as high as PolP.
- When the specifier of PolP is occupied by another contrastive element, the subject still surfaces within the complement of PolP - TP.

- (44) Ar Andrius vakar išsiuntė laišką į Kauną?
 Q A.NOM yesterday PERF.send.PST.3SG letter.ACC to Kaunas.ACC
 ‘Did Andrius send the letter to Kaunas yesterday?’
- a. Į Kauną - ne, bet į Klaipėdą - taip.
 to Kaunas.ACC - no, but to Klaipėda.ACC - yes.
 ‘To Kaunas, no, but to Klaipėda, yes.’
- b. Į Kauną, jis neišsiuntė <laiško>, o
 to Kaunas.ACC 3SG.NOM NEG.PERF.send.PST.3SG letter.GEN but
 į Klaipėdą, išsiuntė <laišką>.
 to Klaipėda.ACC PERF.send.PST.3SG letter.ACC
 ‘To Kaunas, he didn’t send (a letter), but to Klaipėda, he sent (a letter).’