

# Genuine verb stranding vP-ellipsis in Lithuanian\*

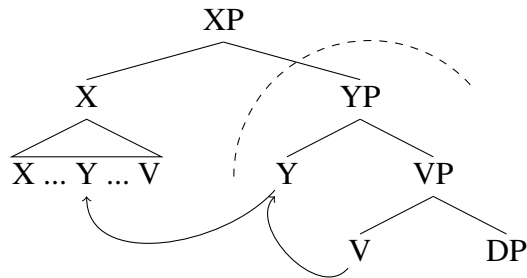
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## 1. Introduction

Verb stranding ellipsis (VSE) involves the ellipsis of the verbal projection in tandem with head movement of the verb to a higher projection outside of the ellipsis site (1).

### (1) Verb stranding ellipsis (VSE)



VSE has been investigated in many languages, including Irish (McCloskey 2011, 2017), Scottish Gaelic (Thoms 2016), Russian (Gribanova 2013, 2017a), Hungarian (Lipták 2012, 2013), European Portuguese (Cyrino and Matos 2005), Greek (Merchant 2018), Hindi-Urdu (Manetta 2019), Uzbek (Gribanova 2019), and Swahili (Ngonyani 1996). Crosslinguistic investigation of this construction allows us to address two important questions: what are the possible sizes of the ellipsis site, and what is the nature of the verbal identity requirement (VIR) that holds in a subset of these languages?

First, it has been argued that the ellipsis site in VSE is as large as TP (TP-VSE) in cases like Hungarian (Lipták 2012), Russian (Gribanova 2017a), Portuguese (Martins 2016), and Irish (McCloskey 2017). In other cases, it has been proposed to be as small as vP (vP-VSE), as in Hungarian (Lipták 2013), Russian (Gribanova 2017a), and Hebrew (Goldberg 2005).

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However, Landau (2020a,b) suggests that cross-linguistic vP-VSE should be unavailable due to locality constraints on the interactions between head movement and ellipsis.

Second, the VIR requires that morphemes extracted from the ellipsis site be lexically identical to their linguistic antecedent. As a result, stranded verbs cannot mismatch with their antecedents even when contrasted. It was assumed that this condition held in all cases of VSE (Goldberg 2005, Schoorlemmer and Temmerman 2012, Lipták 2012). However, counterexamples have since been found in many languages (Santos 2009, Lipták 2013, Gribanova 2013). The VIR still firmly holds in two: Irish (McCloskey 2017) and Scottish Gaelic (Thoms 2018)<sup>1</sup>. There are two competing explanations for the VIR in these languages. The first argues that the requirement is independent of the relation between head movement and ellipsis in VSE, following instead from the inability of verbs to host focal pitch accent in relevant syntactic configurations (Merchant 2018, Thoms 2018). The second argues that the VIR does follow from VSE, more specifically from the postsyntactic nature of the head movement involved and its interaction with ellipsis licensing (Schoorlemmer and Temmerman 2012, McCloskey 2017, Gribanova 2017b, 2019).

In this paper, I offer insight into both the possible ellipsis sites of VSE and the nature of the VIR, using Lithuanian as my test case. Lithuanian is a Baltic language with around 3 million speakers worldwide. It is considered to be an SVO language. Importantly, it has both the necessary ingredients for VSE: regular vP-ellipsis with stranded auxiliaries or modals, and verb movement to a higher clausal projection (§2). First, I show that Lithuanian has VSE (§3) and, furthermore, that it involves vP-ellipsis (§4), offering a counter example to Landau's (2019a,b) claim. Second, I show that Lithuanian VSE respects the VIR and furthermore, that it cannot follow from the unavailability of pitch accent associated with narrow focus on the verb, as may be the case for Goidelic languages, but instead may follow from the post-syntactic nature of the head movement involved (§5).

## 2. Preliminaries

There are two necessary ingredients for vP-VSE: vP-ellipsis and verb head movement to a projection beyond vP. Lithuanian has both. There is regular vP-ellipsis with auxiliary or modal stranding which behaves like constituent ellipsis. It can appear across speaker boundaries (2)<sup>2</sup> preceding its linguistic antecedent (3), and is insensitive to islands (4)<sup>3</sup>.

<sup>1</sup>There is forthcoming work (Gribanova 2019) that argues that Uzbek VSE also abides by the VIR.

<sup>2</sup>For gloss: NEG-negation; NOM-nominative; GEN-genitive; ACC-accusative; DAT-dative; INS-instrumental; ADV-adverbial; PRES-present; PST-past; FUT-future; PERF-perfective; IMP-imperative; PART-participle; M-masculine; F-feminine; SG-singular; PL-plural; REFL-reflexive; Q-question particle; COP-copula; VM-verbal modifier.

<sup>3</sup>Relative clauses are islands in Lithuanian. Though Lithuanian has optional wh-fronting, it is not possible to do so across a relative clause boundary ((i)).

- (i) (\*I Ką) ji gerbia žmones, kurie tiki (I Ką)?  
 in what.ACC she respect.PRES.3SG people.ACC C-WH.PL.NOM believe.PRES.3PL in what.ACC  
 ‘(\*In what) she respects people who believe (in what)?’

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- (2) 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).’
- (3) Jei tu moki <pataisyti——duris>, padėk man  
 if 2SG.NOM able.PRES.2SG PERF.fix.INF door.ACC help.IMP.2SG 1SG.DAT  
 pataisyti duris.  
 PERF.fix.INF door.ACC.  
 ‘If you know how to (fix the door), help me fix the door.’
- (4) Aš negaliu iškepti pyrago, ir žmonės  
 1SG.NOM NEG.able.PRES.1SG PERF.bake.INF cake.GEN and people.NOM  
 kurie tikisi, kad aš galiu  
 C-WH.PL.NOM believe.PRES.3PL.REFL that 1SG.NOM able.PRES.1SG  
 <iškepti——pyragą>, bus nuvilti.  
 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.’

Lithuanian also has verb movement to a projection above vP, though below TP. The verb does not move as high as T, since manner adverbs (5) and floating quantifiers (6) cannot appear between the verb and its internal argument.

- (5) Ji (greitai) skaitė (\*greitai) knygą.  
 she.NOM quickly read.PST.3SG quickly book.ACC.  
 ‘She (quickly) read (\*quickly) the book.’
- (6) Mano draugai (visi) mėgsta (\*visi) Rimą.  
 My friends.NOM all.NOM like.PRES.3PL all.NOM Rima.ACC  
 ‘My friends (all) like (\*all) Rima’

That said, the language has a very rich verbal morphology. Arkadiev (2012) and Šereikaitė (2018) show that there are a number of superlexical prefixes that originate outside of vP. These include *be-*, a particle with both aspectual and modal functions; the optative particle *te-*; the negation particle *ne-* which attaches directly to the main verb.

- (7) Te-ne-be-nor-i daugiau nieko.  
 TE-NEG-BE-WANT-PRES.3SG more nothing  
 ‘Let them want nothing more.’ (Arkadiev 2012)

Additionally, Šereikaitė (2020) has argued for the existence of VoiceP which introduces the external argument and is located just above vP. Assuming that morphemes composing verbs represent separate syntactic heads joined together through head movement, the verb in VSE can move to any one of these heads between Voice and T.

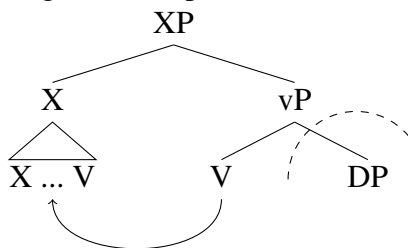
### 3. Argument ellipsis vs. verb stranding ellipsis

Lithuanian has cases of ellipsis like (8), where a verb is left stranded while the rest of the verbal arguments and modifiers are elided.

- (8) a. 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?’
- b. Taip, jie nudažė <namą—mėlynai>.  
 yes 3PL.NOM PERF.paint.PST.3PL house.ACC blue.ADV  
 ‘Yes, they painted (the house blue).’

An alternative explanation to VSE proposed for Hebrew (Landau 2018) and some East Asian languages (Park 1997, Oku 1998, Aoun and Li 2008) is argument ellipsis (AE).<sup>4</sup> AE involves the independent ellipsis of all the verbal arguments (9) and thus, does not involve vP-ellipsis or verb movement, except as an orthogonal derivational step.

- (9) Argument ellipsis (AE)



In order to show that Lithuanian has VSE, we must show that there exists VSE-like strings which are not amenable to AE. In the latter, we expect arguments to be independently elidable more generally in the language. This is true of Lithuanian DPs (10b) and PPs (10a). Thus, AE is an available analysis for verb stranding cases like (10c) which only contain a DPs and/or PPs.

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

<sup>4</sup>A main argument in favor of AE over VSE is the uninterpretability of verbal modifiers in the ellipsis site under negation. For more information on this and why it is irrelevant in Lithuanian see the Appendix.

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- a. Taip, jis supažindino ją  
 yes 3SG.M.NOM introduce.PST.3SG 3SG.F.ACC  
 <su—savo—tėvais>. Jiems ji patiko.  
 with REFL.GEN parents.INS 3PL.DAT 3SG.F.NOM like.PST  
 ‘Yes, he introduce her (to his parents). They liked her.’
- b. Ne, jis nesupažindino <Saulės> su savo  
 NEG 3SG.M.NOM NEG.introduce.PST.3SG S.GEN with REFL.GEN  
 tėvais. Ji nebuvo mieste vakar.  
 parents.INST. 3SG.F.NOM 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> <su—savo—tėvais>.  
 yes 3SG.M.NOM introduce.PST.3SG S.ACC with REFL.GEN parents.INS  
 ‘Yes, he introduced (Saulė to his parents).’

However, there are VP-internal constituents that cannot be independently elided: predicative adjectives, nominals, and resultatives. If one of these is interpreted in an ellipsis site with a stranded verb, then the ellipsis cannot be analysed as AE, but instead must be VSE.

Predicative adjectives cannot be independently elided (11), yet they are interpreted in the ellipsis site when all the vP-internal material is elided together (12). The same is true for predicative nominals respectively in (13) and (14).

- (11) \*Vakar, Darius padarė Eglę nelaimingą, o šiandien,  
 Yesterday, D.NOM PERF.make.PST.3SG E.ACC unhappy.INS, but today  
 tėvai padarė Rūta <nelaimingą>.  
 parents.NOM PERF.make.PST.3PL R.ACC unhappy.INS)  
 ‘Yesterday Darius made Eglė unhappy and today the parents made Rūta (unhappy).’
- (12) Vakar, Darius padarė Eglę nelaimingą, o šiandien,  
 Yesterday, D.NOM PERF.make.PST.3SG E.ACC unhappy.INS, but today  
 tėvai padarė <ją—nelaimingą>.  
 parents.NOM PERF.make.PST.3PL 3SG.ACC unhappy.INS  
 ‘Yesterday Darius made Eglė unhappy and today the parents made (her unhappy).’
- (13) \*Iš pradžių, jie nepaskelbė jo karaliumi, bet  
 from first.GEN, 3PL.NOM NEG.PERF.announce.PST.3PL 3SG.GEN king.INS but  
 po to paskelbė jį <karaliumi>.  
 afterwards PERF.announce.PST.3PL 3SG.ACC king.INS  
 ‘At first, they didn’t declare him king, but afterwards they declared him (king)’

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

A similar pattern can be observed with resultatives; however, because they are optional, their omission does not result in an ungrammatical sentence, but one where the meaning contributed by the resultative isn’t available. This is shown by the follow-up sentence in (15), which leads to a contradiction if the resultative is interpreted as in (16).

- (15) 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 - raudonas.  
 PERF.paint.PST.3PL house.ACC also now 3sg.NOM COP red.NOM  
 ‘We painted the house blue and the neighbors painted the house too. Now, it’s red.’

- (16) Mes nudažėme mūsų namą mėlynai ir  
 1PL.NOM PERF.paint.PST.1PL 1PL.GEN house.ACC blue.ADV and  
 kaimynai nudažė <jūsų—namą—mėlynai> taip pat.  
 neighbors.NOM PERF.paint.PST.3PL 2PL.GEN house.ACC blue.ADV also  
 #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.’

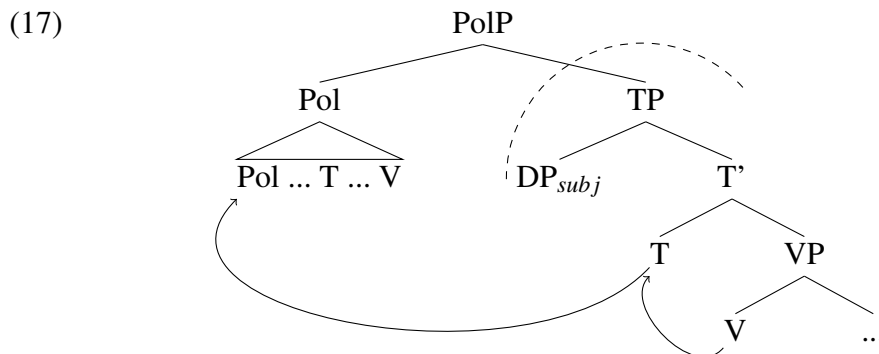
To summarize, AE is an available analysis when the elided constituents are DP or PP arguments. VSE is available regardless of the nature of the vP-internal constituents, as it targets the entire vP. VSE can be distinguished from AE as the only available analysis in cases with interpreted predicative adjectives, nominals and resultatives. For the rest of this paper all VSE examples will contain one of these constituent types.

#### 4. The size of the ellipsis site

Cross-linguistically, there have been two proposed loci of ellipsis in VSE: vP and TP. Holmberg (2001) argued that Finnish had both types of ellipsis. It was originally claimed that vP was the relevant ellipsis domain for Russian (Gribanova 2013), European Portuguese (Cyrino and Matos 2005), and Irish (McCloskey 1991), but more recent analyses have argued that it is instead TP (Gribanova 2017a, Martins 2016, McCloskey 2017). TP ellipsis was also proposed for Hungarian VSE (Lipták 2012), which was then argued to be vP ellipsis (Lipták 2013). Importantly, whether we argue in favor of vP-VSE or TP-VSE in any given language, both these constructions involve head movement of the verb and potentially other associated projections out of an ellipsis site; the choice of ellipsis domain is therefore orthogonal to the question about the VIR, addressed in the next section.

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The main argument in favor TP-VSE over vP-VSE in some languages is the observation that non-contrastive subjects must also be elided. This is the case in Russian and Irish, where the verb in VSE is thought to move to PolP/ΣP just above TP. The subject is then elided with the rest of the TP (Lipták 2012, Gribanova 2017a, McCloskey 2017).



Recently, Landau (2020b,a) has claimed that many cases believed to be vP-VSE are actually AE, and furthermore, that vP-VSE does not exist cross-linguistically, proposing that this results from locality constraints on VSE. Lithuanian VSE presents a counterexample to this claim. Unlike these other languages with TP-VSE, Lithuanian non-contrastive subjects are preferentially pronounced in VSE, (8) and (18).<sup>5</sup> The surface position of these subjects is within TP; when the specifier of PolP is occupied by another contrastive element, the subject still surfaces within the complement of PolP – TP, (19).

- (18) Iš pradžių Marija neatrodė laiminga, bet po to ji  
 from first.GEN M.NOM NEG.seem.PST.3SG happy.INS, but afterwards 3SG.NOM  
 atrodė <laiminga>.  
 seem.PST.3SG happy.INS.  
 ‘At first, Marija didn’t seem happy, but afterwards she seemed (happy).’

- (19) 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 <laiškø>, o į  
 to Kaunas.ACC 3SG.NOM NEG.PERF.send.PST.3SG letter.GEN but to  
 Klaipėdą, išsiuntė <laišką>.  
 Klaipėda.ACC PERF.send.PST.3SG letter.ACC  
 ‘To Kaunas, he didn’t send (a letter), but to Klaipėda, he sent (a letter).’

<sup>5</sup>3rd person pro-drop is more restricted than 1st and 2nd person (Ambrazas 1997, 718).

Lithuanian subjects can also be shown to be above vP. In regular auxiliary-stranding vP-ellipsis, non-contrastive subjects are pronounced, placing them above vP, (2). Šereikaitė (2020) proposes that external arguments are introduced by VoiceP just above vP. Taking these pieces of evidence and argumentation together, the locus of ellipsis in Lithuanian VSE cannot be TP, but must be vP. In the next section, I address the question of whether Lithuanian respects the VIR, and elaborate on how this may inform the debate around the underlying cause of this requirement.

## 5. The nature of the verbal identity requirement

The VIR (20) in its current form was proposed by Goldberg (2005). This followed the initial claim made by Doron (1990) that there is an identity requirement on verbs in VSE.<sup>6</sup>

### (20) Verbal Identity Requirement (VIR)

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

This requirement was initially thought to be a defining property of VSE (Schoorlemmer and Temmerman 2012, Van Craenenbroeck and Merchant 2013, Lipták 2015). In more recent years, however, counterexamples have been found in many languages with VSE; (21) in Hungarian is a good example, where there is narrow focus on the contrasted verbs.

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

The VIR is no longer thought to be a property of VSE more generally (Gribanova 2017a, Landau 2018), but instead there seem to be two groups of VSE languages, some with the VIR and some without. There are three languages for which this identity condition still holds, even under conditions which could putatively give rise to mismatches, for example, where verbs are contrasted. These are Irish (22), Scottish Gaelic (23), and Uzbek (24). This begs the question: what distinguishes these languages from others such that they respect the VIR?

- (22) \*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)

- (23) An dh'ith Iain an cèic? \*Shluig.  
 C-INTERR eat.PST.DEP Iain the cake scoff.PST  
 'Did Iain eat the cake? He scoffed it.' (lit. "scoffed") (Thoms 2016)

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<sup>6</sup>Doron (1999) recanted their initial claim that Hebrew verbs needed to match in VSE, instead supporting Otani and Whitman (1991) and their claim that verbal identity is not a requirement for VSE.



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

In Lithuanian AE examples where the antecedent and stranded verb are contrasted, verb mismatch is possible (25).

- (25) Vakar Andrius Lina apkabino, o šiandien pabučiavo <Lina>.  
Yesterday A.NOM L.ACC hug.PST.3SG, but Today PERF.kiss.PST.3SG L.ACC  
'Yesterday Andrius hugged Lina and today he kissed (her).'

However, in cases of VSE, where the ellipsis site contains a predicative adjective (26), nominal (28) or resultative (31), mismatch is not possible. Though the complete sentence without ellipsis is (26) is grammatical, VSE with a predicative adjective renders it ungrammatical. If the verbs are matched (27), then the ellipsis is perfectly fine. The same is true for examples with predicative nominals. The complete sentence in (28) is grammatical, but with VSE it no longer is. Again, if the verbs are matched (29), the sentence is acceptable.

- (26) \*Iš pradžių ji neatrodė laiminga, bet po to  
from first.GEN 3SG.NOM NEG.seem.PST.3SG happy.INS but afterwards  
ji pasijautė <laiminga>.  
3SG.NOM PERF.feel.PST.3SG happy.INS  
'At first, she didn't seem happy, but afterwards she became (happy).'
- (27) Iš pradžių ji nepasijautė laiminga, bet po to  
from first.GEN 3SG.NOM NEG.PERF.feel.PST.3SG happy.INS but afterwards  
ji pasijautė <laiminga>.  
3SG.NOM PERF.feel.PST.3SG happy.INS  
'At first, she didn't become happy, but afterwards she became (happy).'
- (28) \*Iš pradžių, jis apsimetė viršininku, bet po to  
from fist.GEN, 3SG.NOM PERF.REFL.pretend.PST.3SG boss.INS but afterwards  
jis tapo <viršininku>.  
3SG.NOM become.PST.3SG boss.INS  
'At first, he pretended-being boss, but afterwards he became (boss).'
- (29) Iš pradžių, jis netapo viršininku, bet po to  
from first.GEN, 3SG.NOM NEG.become.PST.3SG boss.INS but afterwards  
jis tapo <viršininku>.  
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 either. Though the complete unelided sentence in (30) is acceptable, when ellipsis is applied in (31) the resultative is no longer interpreted and the sentence becomes degraded due to the asymmetry between conjuncts. In contrast, if the verbs are matched (32), the resultative is interpreted and no such asymmetry occurs. Thus, the VIR holds in Lithuanian VSE, adding to the list of languages which respect this requirement even under ideal conditions for verbal mismatch.

- (30) 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)
- (31) ??Marija nudažė margučius raudonai, o Darius  
 M.NOM PERF.dye.PST.3SG Easter eggs.ACC red.ADV but D.NOM  
 nuspalvojo <margučius——(raudonai)>.  
 PERF.color.PST.3SG Easter eggs.ACC red.ADV  
 ‘Marija dyed the Easter eggs red, but Darius colored in (the Easter eggs red).’
- (32) Marija nuspalvojo margučius raudonai. Darius taip pat  
 M.NOM PERF.color.PST.3SG Easter eggs.ACC red.ADV D.NOM also  
 nuspalvojo <margučius——raudonai>.  
 PERF.color.PST.3SG Easter eggs.ACC red.ADV  
 ‘Marija colored in the Easter eggs red. Darius also colored (the Easter eggs red).’

There are currently two competing explanations for the VIR on offer. First, some have proposed that it follows from reasons independent of VSE. 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 stranded verb host focal pitch accent. If the verb is for some reason unable to do so, the utterance is expected to be unacceptable. Building on Bennett et al. (2019), Merchant (2018) argues that Irish verbs in VSO configurations can’t host focal pitch accent. Similarly, Thoms (2018) defends the same claim for finite verbs in T in Scottish Gaelic. Thus, this explanation for the VIR seems plausible in these languages. Second, others have maintained that the VIR follows from the interaction between head movement and ellipsis. Specifically, Schoorlemmer and Temmerman (2012) argued that the VIR resulted from the post-syntactic nature of head movement. They proposed that lexical items are marked for ellipsis in narrow syntax. If a verb in VSE moves post-syntactically, then it is still marked for ellipsis in narrow syntax and subject to lexical identity requirements.

More recently, Harizanov and Gribanova (2019) have argued that phenomena described as head movement cross-linguistically should be separated into two different operations: *post-syntactic amalgamation* and *regular syntactic movement* of heads. Gribanova (2017b, 2019) and McCloskey (2017) have proposed that the two types of behaviors in regard to the VIR seen cross-linguistically could map on to these two types of head movement. In

languages with the VIR, verb head movement is post-syntactic amalgamation, which respect the VIR following Schoorlemmer and Temmerman (2012). In languages allowing mismatched verbs in VSE, verb movement is regular syntactic movement, following identity requirements analogous to phrasal movement out of ellipsis (Merchant 2001).

Unlike Goidelic languages, Lithuanian allows focal pitch accent on finite verbs more generally — without ellipsis (33) or with it, like in AE (25). This rules out the possibility that the VIR in Lithuanian follows from the inability of the verb to bear pitch accent. Gribanova (2019) convincingly shows that this is also the case in Uzbek.

- (33) Ar ji ju nemėgo? Ne, ji GARBINO juos.  
Q she 3PL.GEN NEG.like.PST.3SG no she respect.PST.3SG 3PL.ACC  
'Did she dislike them? No, she RESPECTED them.'

Examples (25) and (28) only differ in whether or not they involve verb head movement out of the ellipsis site; the former is amenable to an AE analysis, while the latter involves VSE. Building on the logic of Schoorlemmer and Temmerman 2012, I propose that Lithuanian verb movement is post-syntactic as it has all the properties of post-syntactic amalgamation: it causes the head to grow by adding morphemes, it respects the head movement constraint (Travis 1984), and it has no known semantic effects.

Only one of the competing explanations for the VIR is compatible with the Lithuanian data. The VIR cannot follow from the unavailability of focal pitch accent on stranded verbs in Lithuanian VSE. Instead, I have proposed that the VIR follows from the post-syntactic nature of verb head movement in Lithuanian. This is consistent with the proposal that there may be two types of head movement cross-linguistically (Harizanov and Gribanova 2019), mapping to different behaviors with regards to the VIR.

## **6. Conclusion**

I addressed two important open questions in this paper: what are the possible loci for ellipsis in VSE, and what is the nature of the VIR which holds in a subset of languages with VSE? In response to the first question, I showed that Lithuanian has vP-VSE, presenting a counterexample to Landau's (2019a,b) claim that vP-VSE doesn't exist. In answer to the second question, I argued that the VIR in Lithuanian does not follow from language-specific requirements on focus structure and focal pitch accent, but can be made to follow from the post-syntactic nature of verb movement in Lithuanian. Distinguishing between post-syntactic and syntactic head movement in VSE can account for the presence or absence of the VIR in different languages, and may offer insight into a larger question for the field beyond VSE on the nature of head movement more broadly.

## **Appendix: Ellipsis under negation in Lithuanian**

An argument made in favor of AE over VSE for verb stranding configurations in Korean, Japanese and Hebrew (Park 1997, Oku 1998, Landau 2018) is the uninterpretability of vP internal modifiers in ellipsis sites under negation. In (34) from Hebrew, we expect the

verbal modifier to be interpreted if the ellipsis site is vP, but the infelicity of the follow-up sentence shows us that it is not. In contrast, the verbal modifier is interpreted within the ellipsis site in the case of regular vP-ellipsis with auxiliary stranding.

- (34) a. Yosi afa et ha-uga lefi ha-matkon. hi hayta me'ula. Gil lo  
 Yosi baked ACC the-cake according the-recipe it was fabulous Gil not  
 afa \_ . # hi hayta mag'ila.  
 baked it was gross  
 'Yosi baked the cake according to the recipe. It was fabulous. Gil didn't bake.  
 # It was gross.'
- b. Gil, lo \_ . hi hayta mag'ila.  
 Gil not it was gross.  
 'Gil didn't. It was gross.'
- (Landau 2018)

Lithuanian behaves differently. Verbal modifiers are not interpreted either in VSE (35) or regular vP ellipsis with auxiliary stranding (36). Thus, the argument made against VSE in Hebrew cannot be made for Lithuanian.

- (35) Šis paršelis pastatė savo namą iš plytų, o  
 This piglet.NOM PERF.build.PST.3SG self.GEN house.ACC from bricks.GEN, but  
 šitas paršelis nepastatė \_ . #Vilkas nuvertė  
 that piglet.NOM NEG.PERF.build.PST.3SG \_ . wolf.NOM PERF.topple.PST.3SG  
 jo namą.  
 3SG.GEN house.ACC.  
 'This piglet built his house with bricks, but that little piglet didn't build. # The  
 wolf blew his house down.'
- (36) Šis paršelis buvo pastatęs savo namą iš  
 This piglet.NOM be.PST.3SG PERF.build.PRT.M.SG self.GEN house.ACC from  
 plytų, o šitas paršelis nebuvo \_ . #Vilkas  
 bricks.GEN, but that piglet.NOM NEG.be.PST.3SG \_ . wolf.NOM  
 nuvertė jo namą.  
 PERF.topple.PST.3SG 3SG.GEN house.ACC.  
 'This piglet was building his house with bricks, but the other one wasn't. # The  
 wolf blew his house down.'

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