# A direct analysis of Lithuanian phrasal comparatives

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## Abstract

Phrasal comparatives like *John runs faster than Tom* can be derived via two routes:
i) Direct Analyses assume that the argument of *than* is a DP; ii) Reduced Clause
Analyses assume that the *than*-phrase is a clause that is subject to some reduction
operation (*John runs faster than Tom ~~runs~~*). Based on standard diagnostics used to
adjudicate between the two analyses, I argue that Lithuanian phrasal comparatives
are best analyzed as directly licensed. I develop a direct analysis of Lithuanian phrasal
comparatives that captures the empirical generalizations previously discussed in the
literature and a new empirical generalization identified in this paper. This proposal
is contra Grinsell (2012), who argued that Lithuanian phrasal comparatives are
underlyingly clausal based on data that are suggested to show island sensitivity. I
argue against Grinsell's (2012) reduced clause analysis by showing that the island
sensitivity of Lithuanian phrasal comparatives can be successfully captured in a direct
analysis.

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# 1 Introduction

Phrasal comparatives are comparatives in which the standard of comparison superficially is a DP.[1] In the Lithuanian example in (1), the standard of comparison is the accusative case-marked DP *Tomą* 'Tom', which contrasts with the nominative case-marked associate *Jonas* 'John'. In phrasal comparatives, the standard marker is *už* 'than'.

(1)      Jonas       aušt-esn-is     už                Tomą.
         John.NOM   tall-ER-NOM   than.PHRASAL  Tom.ACC
         'John is taller than Tom.'

Lithuanian also has a clausal comparative, a comparative in which the standard of comparison is a clause. In (2), the standard of comparison is a clause that can optionally contain the complementizer *kad* 'that'. In clausal comparatives, the standard marker is *negu* 'than'.

(2)      Jonas       auštesnis    negu               (kad)  Tomas.
         John.NOM   taller.NOM  than.CLAUSAL  that    Tom.NOM
         'John is taller than Tom.'

Clausal comparatives are traditionally analyzed as derived from clausal sources, i.e. the standard of comparison is a clause that is subject to a reduction operation (e.g. Lechner 2001; Merchant 2009, among others).

Regarding the syntax of phrasal comparatives, there are two classes of analyses, which differ in the assumed syntactic size of the standard of comparison: reduced clause analyses (RCAs) and direct analyses (DAs). Under RCAs, phrasal comparatives are bi-clausal. The standard of comparison is a clause that is subject to some reduction operation(s) (e.g. Lechner 2001; 2004; Pancheva 2006; 2009; Merchant 2009, among others). In (3), the standard of comparison undergoes ellipsis (the elided material is indicated by the angled brackets) and the only phrase that survives ellipsis is the remnant, *Tomą* 'Tom'. The remnant and *Jonas* 'John' occupy parallel positions in separate clauses, i.e. they are subjects in their respective clauses.

(3)      Jonas       auštesnis    už                Tomą       <aukštas>.
         John.NOM   taller.NOM  than.PHRASAL  Tom.ACC  tall.NOM
         'John is taller than Tom.'

Under DAs, the standard of comparison is a DP (e.g. Hankamer 1973; Bhatt & Takahashi 2007; 2007, among others). Consequently, the standard of comparison is in the same clause as the associate.

It has been accepted in the literature that both RCAs and DAs are attested cross-linguistically. The big question is how to decide which strategy is employed in a particular language.

Given that RCAs and DAs make different assumptions regarding the size of the standard of comparison, a number of diagnostics that are sensitive to clausal boundaries have been proposed to adjudicate between the two analyses. RCAs and DAs make different predictions with respect to i) case-marking on the standard of comparison; ii) binding of pronouns and anaphors; iii) whether only a single phrase can follow the standard marker (e.g. Hankamer 1973; Merchant 2009; Bhatt & Takahashi 2011, among others). I will now discuss how Lithuanian phrasal comparatives fare with respect to the standard diagnostics.

Anaphors (reflexive pronouns) must be locally bound, i.e. they need to have an antecedent in the same clause. Free pronouns, on the other hand, must be locally free, i.e. their antecedent cannot be in the same clause. Consequently, whether a phrase can serve as an antecedent to a (reflexive) pronoun in the standard of comparison can inform us as to whether phrasal comparatives are mono-clausal (as predicted by DAs) or bi-clausal (as predicted by RCAs).

Lithuanian has a strictly clause-bound reflexive anaphor *save* 'self', which can be inflected for case. The anaphor shows subject orientation as shown in (4), i.e. it can only be bound by a subject in the same clause.

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1    In this paper, DP is used as a notational device. I do not take a stand on whether nominal phrases in Lithuanian, an article-less language, are DPs or NPs; see Gillon & Armoskaite 2015 for a discussion of the nominal phrase structure in Lithuanian.

(4)  Jonas$_i$  pristatė  Tomui$_j$  savo$_{i/*j}$  brolį.
     John.NOM  introduce.PST.3  Tom.DAT  self.GEN  brother.ACC
     'John introduced his brother to Tom.'

In phrasal comparatives, the anaphor *savo* 'self' can be bound by the subject associate, as shown in (5a). In the Lithuanian clausal comparatives, the anaphor *savo* 'self' cannot be used as shown in (5b). The data in (5) thus shows that the associate *Jonas* 'John' and the possessive anaphor *savo* 'self' are in the same clause in phrasal comparatives. This binding pattern is predicted by DAs but not RCAs.

(5)  a.  Jonas$_i$  bėga  greičiau  už  savo$_i$  brolį.
         John.NOM  run.PRS.3  faster  than.PHRASAL  self.GEN  brother.ACC
         'John runs faster than his brother.'

     b.  *Jonas$_i$  bėga  greičiau  negu  savo$_i$  brolis.
         John.NOM  run.PRS.3  faster  than.CLAUSAL  self.GEN  brother.NOM
         'John runs faster than his brother.'

Free possessive pronouns in Lithuanian show anti-subject orientation within the same clause. In the Lithuanian example in (6), the possessive pronoun *jo* 'his' can be co-referential with the indirect object *Tomas* 'Tom' but not with the subject *Jonas* 'John'.

(6)  Jonas$_i$  pristatė  Tomui$_j$  jo$_{*i/j}$  brolį.
     John.NOM  introduce.PST.3  Tom.DAT  he.GEN  brother.ACC
     'John introduced Tom to his brother.'

In the phrasal comparative in (7a), the pronominal possessor *jo* 'his' cannot be coreferential with the subject *Jonas* 'John'. Therefore it follows that that the associate *Jonas* 'John' and *jo* 'his' are in the same clause as predicted by DAs but not RCAs. In the clausal comparative in (7b), on the other hand, *jo* 'his' is ambiguous between referring to the subject of the clause and some contextually salient individual, which means that the associate *Jonas* 'John' and *jo* 'his' are in separate clauses.

(7)  a.  Jonas$_i$  bėga  greičiau  už  jo$_{*i/j}$  brolį.
         John.NOM  run.PRS.3  faster  than.PHRASAL  self.GEN  brother.ACC
         'John runs faster than his brother.'

     b.  Jonas$_i$  bėga  greičiau  negu  jo$_{i/j}$  brolis.
         John.NOM  run.PRS.3  faster  than.CLAUSAL  self.GEN  brother.NOM
         'John runs faster than his brother.'

The second diagnostic is case-marking on the standard of comparison. Under RCAs, the standard of comparison occupies a position that is parallel to the one occupied by the associate. The case-marking on the standard thus depends on its structural position. Under DAs, on the other hand, case is assigned locally by the preposition. In Lithuanian, the standard of comparison is invariably accusative case-marked, even when the standard contrasts with the nominative case-marked subject as shown in (8).

(8)  Jonas  auštesnis  už  Tomą  / *Tomas.
     John.NOM  taller.NOM  than.PHRASAL  Tom.ACC  / Tom.NOM
     'John is taller than Tom.'

This case-marking pattern contrasts with German, a language in which phrasal comparatives have been analyzed as underlyingly clausal (Lechner 2001; 2004). In the phrasal comparative in (9), the first person singular pronoun bears either nominative case (*ich*) in (9a) where it is the subject of the elided clause or accusative case (*mich*) in (9b) where it is the object of the elided clause.

(9)  *German*
     a.  Er  mag  dich  mehr  als  ich.
         he.NOM  like.PRS.3.SG  you.ACC  more  than  I.NOM
         'He likes you more than I (like you).'

b. Er     mag          dich      mehr als   mich.
   he.NOM like.PRS.3.SG you.ACC more than  I.ACC
   'He likes you more than (he likes) me.'

Case invariability in Lithuanian is predicted under a direct analysis: the standard marker *už* 'than' is a preposition and assigns case to its argument. In Lithuanian, prepositions select for a DP argument and assign case. In (3), *už* 'for' is a preposition (homophonous with the standard marker *už* 'than') that assigns accusative case to its DP argument.

(10)   Jonas      balsavo     už  Grybauskaitę.
       John.NOM   vote.PST.3  for Grybauskaite.ACC
       'John voted for Grybauskaite.'

Lastly, RCAs and DAs make different predictions with respect to what can follow the standard marker. Under DAs, the standard of comparison can only be a single phrase, since prepositions take only one argument. Under RCAs, more than one phrase can survive ellipsis, i.e. there can be multiple remnants.

Japanese *yori*-comparatives allow multiple remnants as shown in (11) and they have received a reduced clause analysis (Bhatt & Takahashi 2011).[2]

(11)   *Japanese* (Bhatt & Takahashi 2011: 608)
       Taroo-ga   Tokyo-de-yori          Jiroo-ga   Kyoto-de ooku-no    hito-ni    atta.
       Taro-NOM   Tokyo-in-than.PHRASAL  Jiro-NOM   Kyoto-in many-GEN  people-DAT met.
       'Jiro met more people in Kyoto than Taro in Tokyo.'

In English, syntactic categories other than DPs can function as the standard of comparison as shown in (12), where the standard is an adverb.

(12)   John read more books today than yesterday.

Lithuanian phrasal comparatives allow only a single argument to follow the standard marker *už* 'than' as shown in (13a). Furthermore, the standard of comparison must be a DP as shown in (13b), where the standard is the adverb *vakar* 'yesterday'.[3]

(13)   a.  Jonas      perskaitė   daugiau knygų   už            Mariją
           John.NOM   read.PST.3  more    book.GEN than.PHRASAL Maria.ACC
           (*perskaitė).
           read.PST.3
           'John read more books than Maria (read).'

       b.  *Šiandien Jonas      perskaitė   daugiau knygų   už            vakar.
           today    John.NOM   read.PST.3  more    book.GEN than.PHRASAL yesterday
           'John read more books today than yesterday.'

Since prepositions take only a single DP argument in Lithuanian, this empirical generalization is predicted by DAs but not RCAs.

In summary, the following generalizations about Lithuanian phrasal comparatives emerged from applying diagnostics used to adjudicate between RCAs and DAs:

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2   *Yori*-comparatives with multiple remnants are derived from clausal sources via RCA. When the remnant is a single DP remnant, Bhatt & Takahashi (2011) propose that the *yori*-comparative is derived via DA based on binding properties of the standard of comparison. RCA in constructions with a single DP is blocked by an economy constraint.

3   Both of these sentences can be rendered grammatical with a *negu*-comparative as shown in (i).

(i)   a.  Jonas      perskaitė   daugiau knygų   negu          Marija      perskaitė.
          John.NOM   read.PST.3  more    book.GEN than.CLAUSAL Maria.NOM  read.PST.3
          'John read more books than Maria.'

      b.  Šiandien Jonas      perskaitė   daugiau knygų   negu          vakar.
          today    John.NOM   read.PST.3  more    book.GEN than.CLAUSAL yesterday
          'John read more books today than yesterday.'

**i.** the standard of comparison and the associate are in the clause,

**ii.** the standard of comparison is invariably accusative case marked,

**iii.** the standard of comparison must be a DP.

All these empirical generalizations support a direct analysis of Lithuanian phrasal comparatives and not a reduced clause analysis.[4] Despite the fact that the diagnostics overwhelmingly support a direct analysis, Grinsell (2012) develops a reduced clause analysis. His motivation for a clausal analysis is based on the fact that phrasal comparatives seem to exhibit island effects. Islands are assumed to be syntactic constraints that prevent extraction from certain syntactic configurations (e.g. Ross 1967; Chomsky 1995). Since under DAs, phrasal comparatives are base-generated mono-clausal structures, the presence of island effects would be unexpected. Since Merchant (2009), island effects have been used as an argument in favor of RCAs.

In this paper, I propose a direct analysis of Lithuanian phrasal comparatives under which the island violations emerge due to the movement of an associate at the LF. One consequence of this empirical discussion, which extends beyond the proper analysis of Lithuanian phrasal comparatives, concerns the use of island effects as a diagnostic used to adjudicate between RCAs and DAs originating in Merchant (2009). The use of this diagnostic has been extended into the description and analysis of phrasal comparatives of other languages (Grinsell 2012; Lindenbergh 2016). I suggest that the apparent island effects should not be considered as a decisive diagnostic, since they are compatible with RCAs and DAs contra claims in Merchant (2009).

## 2 Empirical characterization of Lithuanian phrasal comparatives

In this section, I discuss empirical generalizations about Lithuanian phrasal comparatives that are known in the literature. In subsection 2.2, I introduce a novel empirical generalization, which states that the associate must be the subject of the clause.

### 2.1 Previously discussed empirical generalizations

Three empirical generalizations about Lithuanian phrasal comparatives have been identified in Grinsell (2012).

First, phrasal comparatives are incompatible with measure phrases like *du metrai* 'two meters' as exemplified in (14a) (Grinsell 2012). The clausal comparative in (14b), on the other hand, is grammatical with the same measure phrase.

(14)    a.    *Jonas      aukštesnis už         du      metrus.
              John.NOM   taller.NOM   than.PHRASAL   two.ACC   meter.ACC
              Intended meaning: 'John is taller than two meters.'

         b.    Jonas       aukštesnis negu       du       metrai.
              John.NOM   taller.NOM   than.CLAUSAL   two.NOM   meter.NOM
              'John is taller than two meters.'

Second, in Lithuanian nominal comparatives are formed with a comparative word *daugiau* 'more', which consists of two morphemes: *daug* 'a lot' and *-iau* '-er'. Phrasal comparatives in Lithuanian are ungrammatical if the subject of the sentence is preceded by *daugiau* 'more' as shown in (15a) (adapted from Grinsell 2012: 37). A clausal comparative, on the other hand, is grammatical, as shown in (15b).

(15)    a.    *Daugiau student      lanko        Čikagos        universitetą    už
              more     student.GEN   attend.PST.3   Chicago.GEN   univeristy.ACC   than.PHRASAL
              Northwesterną.
              Northwestern.ACC
              Intended meaning: 'More students attend the University of Chicago than
              Northwestern.'

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[4]    While all these properties are predicted by a direct analysis, Merchant (2009) develops a reduced clause analysis that aims to capture the local relation between the standard of comparison and the associate in terms of binding and case-assignment. The assumptions that Merchant (2009) has to make to capture this local relationship will be discussed in more detail in Section 4.

b. Daugiau student  lanko    Čikagos    universitetą   negu
    more     student.GEN attend.PST.3 Chicago.GEN univeristy.ACC than.CLAUSAL
    Northwesterno.
    Northwestern.GEN
    'More students attend the University of Chicago than Northwestern.'

Third, Grinsell (2012) argues that phrasal comparatives exhibit island effects. Grinsell provides only one example of a phrasal comparative exhibiting the purported island effects, namely the example in (16).

(16)    *Daugiau žmonių    kas        gyvena   valstijoje, kurią     valdo
        more    people.GEN who.NOM live.PRS.3 state.LOC which.ACC govern.PRS.3
        Obama,     už           Medvedeva.
        Obama.NOM than.PHRASAL Medvedev.ACC
        'More people live in the state that Obama governs than in the state that Medvedev governs.' (Grinsell 2012: 41)

The ungrammaticality of the example cannot be attributed conclusively to island sensitivity. The ungrammaticality is expected because, as discussed in Section 2, 'more DP subjects' are ungrammatical with phrasal comparatives.[5] Consequently, the data provided in Grinsell (2012) does not constitute evidence for island effects.

To test a purported island sensitivity of phrasal comparatives, I constructed the minimal pair in (17), whereby the phrasal comparative does not violate any of the empirical generalizations discussed in this section.[6]

(17)  a.  Jonas     suvalgė daugiau sausainių, kuriuos   iškėpė    Agnė
           John.NOM eat.PST.3 more     cookie.GEN which.ACC bake.PST.3 Agne.NOM
           negu       Tomas.
           than.CLAUSAL Tomas.NOM
           'John ate more cookies that Agne baked than Tom.'

      b.  Jonas     suvalgė daugiau sausainių, kuriuos   iškėpė    Agnė
           John.NOM eat.PST.3 more     cookie.GEN which.ACC bake.PST.3 Agne.NOM
           už        Tomą.
           than.PHRASAL Tom.ACC
           'John ate more cookies that Agne baked than Tom.'

The clausal comparative in (17a) is ambiguous between two readings: *Tomas* 'Tom' can either be interpreted as the subject of the matrix verb *suvalgė* 'ate' (leading to Reading 1) or the subject of the relative clause internal verb *iškėpė* 'baked' (leading to Reading 2).[7] The two readings and the syntactic structure associated with them is presented in (18).

(18)  a.  Reading 1: John ate more cookies that Agne baked than Tom ate the cookies that Agne baked.
      b.  Reading 2: *John ate more cookies that Agne baked than he ate the cookies that Tom baked.

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5    The sentence also contains some punctuation and vocabulary errors that could have influenced the acceptability of the sentence.

6    There is variability of acceptability of the comparatives in (17). Two out of three native speakers consulted found both sentences acceptable.

7    The most natural word order for these sentences as judged by three native speakers of Lithuanian is given in (i). In these examples, the DegP *už Tomą* and *negu Tomas* 'than Tom' is not sentence final. With this word order, the clausal comparative in (ia) is no longer ambiguous, as it can only have Reading 1.

(i)  a.  Jonas     suvalgė daugiau negu       Tomas    sausainių, kuriuos iškėpė   Agnė.
        John.NOM eat.PST.3 more     than.CLAUSAL Tom.NOM cookie.GEN which.ACC bake.PST.3 Agne.NOM
        'John ate more cookies that Agne baked than Tom (ate).'
    b.  Jonas     suvalgė daugiau už         Tomą     sausainių, kuriuos iškėpė   Agnė.
        John.NOM eat.PST.3 more     than.PHRASAL Tom.ACC cookie.GEN which.ACC bake.PST.3 Agne.NOM
        'John ate more cookies that Agne baked than Tom (ate).'

The phrasal comparative in (17b) is grammatical, but in contrast to (17a), it only allows Reading 1, i.e. it is not ambiguous. The question is why Reading 2 is unavailable in (17b). Grinsell (2012) suggests that phrasal comparatives exhibit island effects. Based on the apparent island effects, Grinsell's (2012) concludes that since phrasal comparatives warrant a reduced clause analysis. In Section 3, I will show that island sensitivities are successfully captured in a direct analysis. Consequently, the unavailability of the relative clause internal reading cannot be viewed as evidence in favor of RCAs.

## 2.2 Novel empirical generalization

The novel empirical generalization about Lithuanian phrasal comparatives is that the associate must be the subject of the clause as shown in (19).[8]

In (19a), the associate is the subject of the clause *Jonas* 'John'. The comparison is between the number of doughnuts that were eaten by John and the number of doughnuts eaten by Tom. In the ungrammatical example in (19b), the associate is *spurgų* 'doughnuts', the direct object of the verb *valgyti* 'to eat'. The comparison is between the number of people eating doughnuts and the number of of people eating cookies.

(19)  a.  Jonas       suvalgė   daugiau  spurgų        už            Tomą.
          John.NOM  eat.PST.3  more     doughnut.GEN  than.PHRASAL  Tom.ACC
          'John ate more doughnuts than Tom (ate).'

      b.  *Jonas      suvalgė   daugiau  spurgų        už            sausainius.
          John.NOM  eat.PST.3  more     doughnut.GEN  than.PHRASAL  cookie.ACC
          Intended meaning: 'John ate more doughnuts than cookies.'

One might wonder whether the correct empirical generalization for Lithuanian is that the associate cannot be a nominal that is part of 'more NP'. The sentence in (20) shows the privileged status of the subjects in phrasal comparatives more clearly. The phrasal comparative in (20) contains a ditransitive verb. Consequently, there are two nominals that are not part of 'more NP' and therefore could potentially serve as the associate. However, the sentence is not ambiguous in Lithuanian. Only the subject of the sentence *Jonas* 'John' can be interpreted to be the associate. The reading in which *Marijai* 'Maria', the indirect object of *padovanojo* 'gifted', is the associate does not arise in Lithuanian.

(20)  Jonas       padovanojo  Marijai    daugiau  dovanų       už            Tomą.
      John.NOM  gift.PST.3   Maria.DAT  more     present.GEN  than.PHRASAL  Tom.ACC
      'John gave more presents to Maria than Tom (did).'
      #'John gave more presents to Maria than (he did to) Tom.'

The example in (20) shows that the associate must be the subject of the sentence in Lithuanian.

In summary, this section discussed empirical generalizations that hold about Lithuanian phrasal comparatives as well as introduced a novel empirical generalization. An empirically adequate analysis needs to capture the following empirical generalizations about Lithuanian phrasal comparatives:

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8   Lithuanian has dative experiencers, which in some languages behave as quirky subjects. Although dative experiencers are found in sentence-initial position, a position canonically reserved for subjects in Lithuanian, they are not syntactic subjects. Dative experiencers do not bind reflexives nor control agreement on the predicate with respect to person as shown in (i).

(i)  ?Jonui patinka      savo      naujas     švarkas.
     John  please.PRS.3  self.GEN  new.NOM  jacket.NOM
     'John likes his new jacket.' (adapted from Holvoet 2013: 266))

In Lithuanian phrasal comparatives, the associate is the nominative case-marked DP and not the dative experiencer as shown in (ii), which is consistent with the novel empirical generalization.

(ii) Man    spurgos       patinka     labiau  už    Joną.
     I.DAT  doughnut.NOM  like.PRS.3  more    than  John.ACC
     'I like doughnuts more than I like John.'
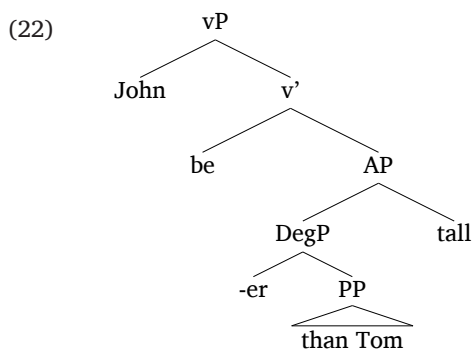     #'I like doughnuts more than John likes doughnuts.'

The binding pattern in experiencer constructions is changing according to Holvoet (2013), who suggests that in colloquial Lithuanian binding by dative experiencers is accepted by some speakers.

i.   they are ungrammatical with measure phrases (Grinsell (2012));

ii.  they are ungrammatical if the subject of the sentence is preceded by *daugiau* 'more' (Grinsell (2012));

iii. they exhibit island effects (Grinsell (2012));

iv.  the associate must be the subject of the sentence.

# 3 A direct analysis of Lithuanian phrasal comparatives

In this section, I develop a direct analysis of Lithuanian phrasal comparatives (Hankamer 1973; Bhatt & Takahashi 2007; 2011; Merchant 2012, among others). To illustrate basic assumptions of the analysis, consider the example in (21). The standard marker *už* 'than' is a preposition and the standard of comparison *Tomą* 'Tom' is a DP argument of *už* 'than'. A partial syntactic derivation of the comparative is shown in (22) (assuming the AP analysis of comparatives following Bresnan 1973).

(21)  Jonas      aukšt-esn-is  [$_{PP}$ už            [$_{DP}$ Tomą.]]
      John.NOM  tall-ER-NOM         than.PHRASAL      Tom.ACC
      'John is taller than Tom.'

(22)

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              vP
            /    \
        John      v'
                /    \
              be      AP
                    /    \
                 DegP     tall
                /   \
              -er    PP
                    /  \
                than Tom
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Following standard assumptions, I assume that gradable adjectives denote a function of type ⟨d,⟨e,t⟩⟩, as in (23a). The morpheme *-esn-* 'er' marks the adjective in the comparative constructions. I assume that the comparative morpheme has the semantics of the comparative operator in (23b) (e.g. Heim (1985); Beck (2011); Bhatt & Takahashi (2011)). The operator combines three arguments: an individual-denoting standard of comparison, a gradable predicate and an individual-denoting associate.

(23)  a.   $[\![aukštas]\!] = \lambda d\lambda x.\text{tall}(d)(x)$
      b.   $[\![-esn-]\!] = \lambda x_e \lambda P_{<d,et>} \lambda y_e.\text{MAX}(\lambda d.P(d)(y)) > \text{MAX}(\lambda d'.P(d')(x))$

Given these assumptions, the entire comparative in (21) is true if and only if the maximal degree of John's height exceeds the maximal degree of Tom's height, as shown in (24).

(24)  $\text{MAX}(\lambda d.\text{tall}(d)(j)) > \text{MAX}(\lambda d'.\text{tall}(d')(t))$
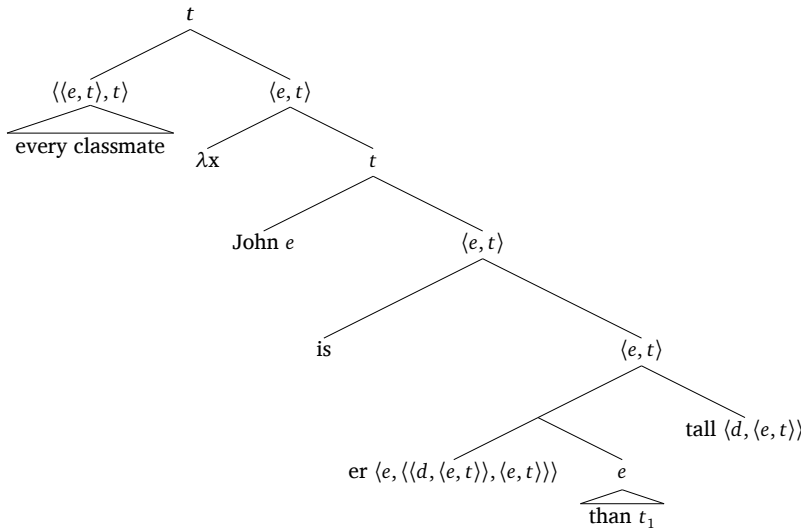
Two points need to be explicated further about the proposed analysis.

First, in Lithuanian phrasal comparatives both the associate and the standard of comparison can be quantified phrases as shown in (25).

(25)  a.   Jonas      už           visus  savo      klasiokus        aukštesnis.
           Jonas.NOM  than.PHRASAL  all.ACC  self.GEN  classmate.ACC.PL  taller.NOM.SG
           'Jonas is taller than all of his classmates.'

      b.   Visi     Jono       klasiokai         už            jį       aukštesni.
           all.NOM  John.GEN   classmate.NOM.PL  than.PHRASAL   he.ACC   taller.NOM.PL
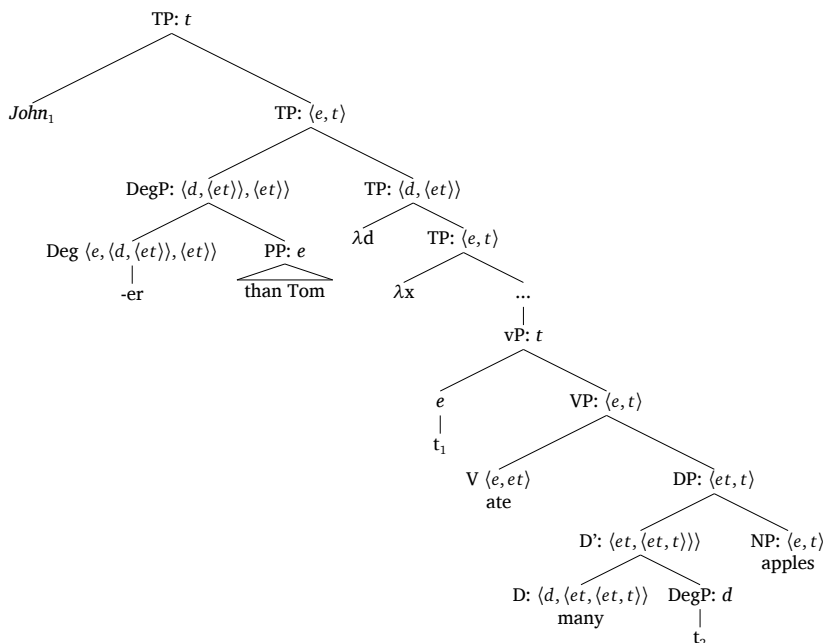           'All John's classmates are taller than him.'

Since the comparative operator in (23b) expects two individual-denoting expressions but instead finds a quantified expression, a type mismatch arises. The type mismatch is resolved by Quantifier-Raising the quantified expression. A schematic LF of the sentence in (25a) is given in (26).

(26)    LF of *Every classmate is taller than John*

$t$
— $\langle\langle e,t\rangle,t\rangle$ : every classmate
— $\langle e,t\rangle$
  — $\lambda x$
  — $t$
    — John $e$
    — $\langle e,t\rangle$
      — is
      — $\langle e,t\rangle$
        — $\langle e,t\rangle$
          — er $\langle e,\langle\langle d,\langle e,t\rangle\rangle,\langle e,t\rangle\rangle\rangle$
          — $e$ : than $t_1$
        — tall $\langle d,\langle e,t\rangle\rangle$

Second, the analysis of nominal comparatives relies on quantifier raising of the degree phrase. The movement of DegP is motivated by a type clash. The degree head expects the second argument to be a degree predicate. There is however, no degree predicate on the surface. I assume that *daugiau* 'more' in nominal comparatives is composed of determiner *daug* 'a lot' and the comparative morpheme *-iau* (cf. Bresnan (1973); Hackl (2000), a.o. for the view that English *more* is composed out of *many* and the comparative morpheme *-er*). I assume Hackl's semantics for the generalized quantifier *daug* 'many'. Following Bhatt & Takahashi (2011), I assume that nominal comparatives are derived via the mechanism of *parasitic scope*.[9] Parasitic scope involves two subsequent applications of Quantifier Raising: the first one targets the associate and the second one targets the DegP. In the Lithuanian example in (27a), first the associate *Jonas* 'John' raises to a higher scope-taking position. The first movement of creates a predicate via lambda abstraction. The movement of DegP to a position below the raised associate (also known as tucking-in) turns the existing predicate into a degree predicate. Due to space considerations the QR of DP *obuolių* 'apples' is not shown in the LF.

(27)    a.    Jonas       suvalgė daugiau obuolių      už            Tomą.
              John.NOM  eat.PST.3  more      apple.GEN  than.PHRASAL  Tom.ACC
              'John ate more apples than Tom.'

        b.    LF:

TP: $t$
— *John*$_1$
— TP: $\langle e,t\rangle$
  — DegP: $\langle\langle d,\langle et\rangle\rangle,\langle et\rangle\rangle$
    — Deg $\langle e,\langle\langle d,\langle et\rangle\rangle,\langle et\rangle\rangle\rangle$ : -er
    — PP: $e$ : than Tom
  — TP: $\langle d,\langle et\rangle\rangle$
    — $\lambda d$
    — TP: $\langle e,t\rangle$
      — $\lambda x$
      — ...
        — vP: $t$
          — $e$ : $t_1$
          — VP: $\langle e,t\rangle$
            — V $\langle e,et\rangle$ : ate
            — DP: $\langle et,t\rangle$
              — D': $\langle et,\langle et,t\rangle\rangle$
                — D: $\langle d,\langle et,\langle et,t\rangle\rangle$ : many
                — DegP: $d$ : $t_2$
              — NP: $\langle e,t\rangle$ : apples

Having introduced the basic tenets of the direct analysis argued for in this paper, I turn to the empirical generalizations. First, as already discussed in Section 1, some of the empirical generalizations about Lithuanian phrasal comparatives straightforwardly fall out from the direct analysis. The fact that the standard of comparison must be a single DP is captured by the assumption that *už* 'than' is a preposition which selects for a DP argument. Invariant case-marking on the standard of comparison is captured by the assumption that the preposition *už* 'than' assigns accusative case to its argument. Lastly, the facts that the reflexives in the standard of comparison can be bound by the subject associate and that free pronouns cannot be bound by the subject associate are a direct consequence of the assumption that phrasal comparatives are mono-clausal. In the remainder of this section, I show how the direct analysis can also account for the four empirical generalizations laid out in Section 2.

First, measure phrases are incompatible with phrasal comparatives in Lithuanian. Measure phrases like *2 meters* are ambiguous between two interpretations: a point on a scale ($\langle d \rangle$, comparable to a temporal *2 o'clock*) or a predicate over scale intervals ($\langle d, t \rangle$, comparable to *2 hours*, see Schwarzschild (2005) for a detailed discussion). Since the comparative operator in (23b) expects the standard to denote an individual, measure phrases are predicted to be ungrammatical with phrasal comparatives.

Second, only the subject DP can be interpreted as the associate in Lithuanian phrasal comparatives. This restriction has not been observed in phrasal comparatives in other languages. For instance, the Japanese phrasal *yori*-comparative in (28a) is ambiguous between two readings, as both *watashiwa* 'I' or *nekoo* 'cats' can be interpreted as the associate (Matsui & Kubota 2010: 126). This ambiguity is readily predicted by the parasitic scope mechanism: both *watashiwa* 'I' and *nekoo* 'cats' can be targeted by the first application of Quantifier Raising, resulting in two different LFs, (28b) and (28c) respectively.

(28)    *Japanese* (Matsui & Kubota 2010: 126)
   a.   Watashi-wa   John-yori          neko-o      aishiteiru.
        I-TOP        John-than.PHRASAL  cats-ACC    love.NONPAST
        'I love cats more than John.'

   b.   [ I [ John-yori [ λdλx [x loves cats ]]]]
        'I love cats more than John does.'

   c.   [ cats [ John-yori [ λdλx [ I love x ]]]]
        'I love cats more than I love John.'

Since Lithuanian phrasal comparatives are not ambiguous, contrary to the Japanese example in (28a), I argue that Quantifier Raising is subject to an economy constraint in Lithuanian in the sense of Richards (1997) *Shortest* principle.[10] The idea that Quantifier Raising is subject to an economy constraint is instantiated in Fox (1995) and Bruening (2001).

(29)    **Shortest** (Richards (1997): 113)
        A pair P of elements [α, β] obeys Shortest iff there is no well-formed pair P' which can be created by substituting γ for either α or β, and the set of nodes c-commanded by one element of P' and dominating the other is smaller than the set of nodes c-commanded by one element of P and dominating the other.

Following Heim & Kratzer (1998: 210), I assume that the QR operation is available for all DPs, quantificational or not. Consequently, the subject DP is always in competition with other DPs. In (30a), both *Jonas* 'John' and *Tomas* 'Tom' could theoretically QR. The principle in (29), however, ensures that only the highest DP, i.e. the sentential subject, undergoes the process. Consequently, the associate can only be *Jonas* 'John' as shown in (30b). The LF in (30c) is ruled out as it violates *Shortest*: *Jonas* 'John' is structurally higher than *Tomui* 'Tom'.[11]

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10   This economy constraint on movement is comparable to Chomsky's (1995) *Minimal Link Condition* and Rizzi's (1990) *Relativized Minimality*.

11   This analysis could also be amenable to an analysis in which QR is driven by feature attraction (e.g. Bruening 2001. I will leave it to future research to spell out the details of such an analysis and potential advantages of such an approach.

(30)  a.  Jonas       padovanojo Tomui    daugiau dovanų už          Agnę.
          John.NOM gift.PST.3   Tom.DAT more    gift.GEN than.PHRASAL Agne.ACC
          'John gave more presents to Tom than Agne.'

      b.  [John [more than Agne [λdλx [x gave d-many presents to Tom]]]]

      c.  *[Tom [more than Agne [λdλx [John gave d-many presents to x]]]]]

As pointed out by an anonymous reviewer, adopting *Shortest* makes a more general prediction about quantifier scope in Lithuanian, namely it predicts that the language is scopally rigid. This prediction is borne out. In the Lithuanian example in (31) that contains two quantified expressions, only the surface scope reading is available as judged by three native speakers consulted. The fact that the surface scope reading is available, whereas the inverse scope reading is not available indicates that quantifier raising is not freely available in Lithuanian.[12]

(31)  Kažkoks     vyras        pabučiavo kiekvieną merginą.
      some.NOM man.NOM kiss.PST.3  every.ACC woman.ACC
      'Some man kissed every woman.'
      (some > every): One (specific) man kissed every woman.
      *(every > some): For every woman, she was kissed by some (potentially different)
      man.

*Shortest* predicts that in a phrasal comparative that contains a relative clause, only the subject of the matrix clause can function as the associate. This prediction is borne out as shown in (32a). Only *Jonas* 'John' can undergo Quantifier Raising, as shown in (32b). By contrast, the structure in (32c), in which *Agnė* 'Agne' undergoes Quantifier Raising is ruled out as it violates *Shortest*.

(32)  a.  Jonas       suvalgė daugiau už          Tomą     sausainių,
          John.NOM eat.PST.3 more    than.PHRASAL Tom.ACC biscuit.GEN
          kuriuos  iškėpė     Agnė.
          which.ACC bake.PST.3 Agne.NOM
          'John ate more biscuits that Agne baked than Tom.'

      b.  [John [more than Tom [λdλx [x ate d-many cookies which baked Agne]]]]

      c.  *[Agne [more than Tom [λdλx [John ate d-many cookies which baked x]]]]

The relative clause internal reading in (32c) is also be ruled out independently provided that Quantifier Raising is subject to island constraints (see e.g. Tanaka 2015 for experimental evidence). The associate *Agnė* would have to QR out of a relative clause resulting in an island-violation. The apparent island-effects thus can be explained in a direct analysis. The movement of the associate cannot be island-violating. This analysis differs from the analysis presented in Grinsell (2012). The latter assumes that the island-violation arises due to the island-violating movement of the remnant, in this example *Tomą*. Grinsell's analysis is discussed in more detail in Section 4.

Lastly, Lithuanian phrasal comparatives are ungrammatical with 'more DP subjects'. In Lithuanian, 'more DP subjects' are ruled out by *Shortest* since the subject DP *žmonių* 'people' intervenes and thus rules out the QR of *vyną* 'wine' as shown in (33b).

(33)  a.  *Daugiau žmonių      gerė     vyną     už          alų.
          more    people.GEN drink.PST.3 wine.ACC than.PHRASAL beer.ACC
          'More people drank wine than beer.'

      b.  [wine [more than beer [λdλx [d-many people drank x]]]]

Lithuanian shares the 'more DP subjects' restriction with some other Balto-Slavic languages, for instance, Bulgarian as shown in the minimal pair in (34) (Pancheva 2009: 2). As in Lithuanian, the subject of a phrasal comparative cannot be preceded by a comparative word *poveče* 'more' in Bulgarian, as shown in (34a). The sentence can be rendered grammatical with a clausal *otkolkoto*-comparative as shown in (34b).

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12   Russian, a related Balto-Slavic language, has been argued to be scopally rigid as well by Ionin (2001), though this characterization was challenged in Antonyuk 2015. Further research is necessary to determine whether inverse scope might become available under certain pragmatic conditions or prosody in Lithuanian.

(34)     *Bulgarian* (Pancheva 2009: 2)
      a.    *Poveče turisti posetixa Sofia ot          Varna.
          more    tourists visited   Sofia   than.PHRASAL Varna
          'More tourists visited Sofia than Varna.'

      b.    Poveče turisti posetixa Sofia otkolkoto       Varna.
          more    tourists visited   Sofia   than.CLAUSAL   Varna
          'More tourists visited Sofia than Varna.'      (Pancheva 2009: 2)

Lechner (2017) proposes that certain phrasal comparatives in the Slavic languages are subject to the Parasitic Scope Generalization, as defined in (35).

(35)     **Parasitic Scope Generalization (PSG)**
        In environments where movement of *α* provides the semantic context for type driven movement of *β*, the base position of *α* c-commands the base position of *β*.

A DegP can only move if the associate in its base position c-commands the DegP. The Bulgarian phrasal comparative in (34a) is predicted to be ungrammatical, since the associate *Sofia* 'Sofia' does not c-command the DegP *poveče ot Varna* 'more than Varna' as shown in (36).

(36)     [Sofia [more than Varna [λ*d*λx [d-many tourists visited x]]]]

It is possible that PSG is operational in Lithuanian phrasal comparatives just as it is in many Slavic languages, thus restricting the parasitic scope mechanism even further. The sentence in (33a) could also potentially be ruled out by PSG. Since the associate DP *vynų* 'wine' in its base position does not c-command the DegP *daugiau už alų* 'more than beer' as shown in (33b). However, it is not possible to test whether *PSG* is operational in Lithuanian phrasal comparatives. For instance, PSG would predict that the sentence in (37) is ambiguous between subject associate and indirect object associate reading. However, *Shortest* rules out the indirect object associate reading. *Shortest* thus only allows a subset of sentences that do not violate PSG. Further research is needed to determine whether there is independent evidence to assume PSG is operational in Lithuanian.

(37)     Jonas        nusiuntė Agnei     daugiau laiškų     už         Tomą.
        John.NOM send.PST.3 Agne.DAT more     letters.GEN than.PHRASAL Tom.ACC
        'John sent more letters to Agne than Tom (did).

By virtue of adopting the direct analysis of phrasal comparatives and enriching it with one constraint on Quantifier Raising (*Shortest*), we can account for all empirical generalizations about Lithuanian phrasal comparatives that we set out to capture in Section 2.

# 4 Grinsell's (2012) reduced clause analysis

Standard diagnostics applied to Lithuanian phrasal comparatives motivates a direct analysis, yet the first analysis of Lithuanian phrasal comparatives in Grinsell (2012) argues them to be underlyingly clausal. The aim of this section is two-fold: i) to introduce Grinsell's reduced clause analysis of Lithuanian phrasal comparatives; ii) to critically assess the analysis in terms of its empirical coverage.

## 4.1 Reduced clause analysis of Lithuanian phrasal comparatives

Grinsell (2012) adopts the reduced clause analysis originally proposed in Merchant (2009) for phrasal comparatives in Modern Greek. Under this analysis, the standard of comparison is a clause, as shown in (38b) for the phrasal comparative in (38a). The remnant *Tomą* 'Tom' moves to a clause external position, while the clause itself undergoes TP-ellipsis (ellipsis site indicated by the angled brackets). The remnant *Tomą* 'Tom' moves cyclically to specPP via specFP, while the standard marker *už* 'than' moves from P to *p*.

(38)     a.    Jonas       aukštesnis už         Tomą     < yra    aukštas. >
          John.NOM   taller.NOM than.PHRASAL Tom.ACC be.PRS.3 tall.NOM
          'John is taller than Tom.'

b.    Partial derivation:
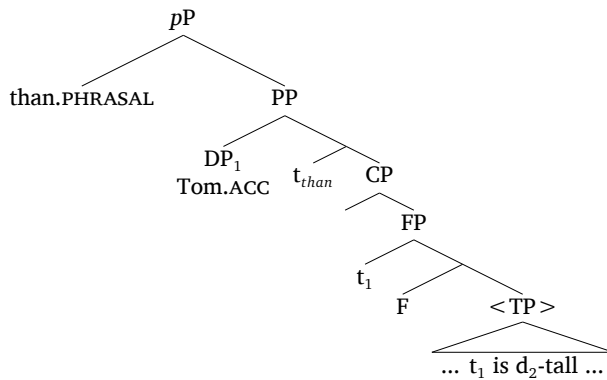


Following Merchant (2009), Grinsell assumes that island effects arise from a prohibition against unelided island-violating traces. More specifically, illicit traces are assumed to be PF-uninterpretable. The phrasal comparative in (39a) is predicted to be ungrammatical under this analysis because the remnant *Medvedevą* 'Medvedev' leaves an unelided island-violating trace in specFP as shown in (39b).

(39)    a.    *Daugiau žmonių    gyvena    valstybėje, kurią    valdo
              more    people.GEN live.PRS.3 state.LOC  which.ACC govern.PRS.3
              Obama,    už            Medvedevą.
              Obama.NOM than.PHRASAL  Medvedev.ACC
              'More people live in the state that Obama governs than in the state
              that Medvedev governs.' (adapted from Grinsell 2012: 41)

        b.    Partial derivation:
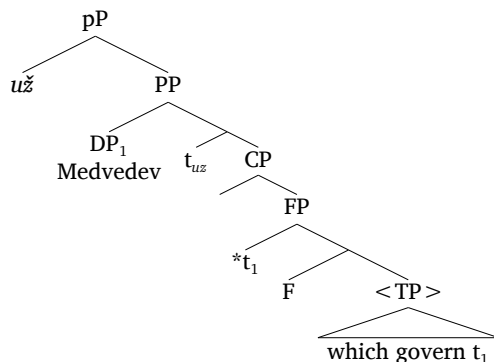


Grinsell's reduced clause analysis thus captures the ungrammaticality of (39a), attributing the ungrammaticality to island effects (though recall that this particular sentence is also ruled out by 'more DP subject' constraint).

Under this analysis, both phrasal and clausal comparatives are bi-clausal, i.e. the standard of comparison is a clause. As shown in (40), a clausal comparative is grammatical. It is thus in need of explanation as to why clausal comparatives do not exhibit island effects.

(40)    Daugiau žmonių    kas          gyvena    valstijoje, kurią    valdo
        more    people.GEN who.NOM     live.PRS.3 state.LOC  which.ACC govern.PRS.3
        Obama,    negu          Medvedevas.
        Obama.NOM than.CLAUSAL   Medvedev.NOM
        'More people live in the state that Obama governs than in the state that
        Medvedev governs.' (Grinsell 2012: 41)

Following Merchant (2009), Grinsell (2012) suggests that the final landing site of the remnant is different in phrasal and clausal comparatives. In clausal comparatives, the final landing site is specFP. Grinsell (2012) argues that the clausal standard marker *negu* 'than' is morphologically complex as opposed to the morphologically simplex phrasal standard marker *už* 'than'. Historically, *negu* 'than' consists of two morphemes: *ne* 'NEG' and *gu* a clitic (Bender (1921) as cited in Grinsell (2012)). Grinsell suggests that the two morphemes occupy distinct positions in the syntax. Crucially, the negation morpheme occupies specPP. The remnant *Medvedevą*

'Medvedev' therefore cannot move higher than specFP in the clausal comparative in (40), which is analyzed in (41). Since the remnant occupies specFP, there is no island-violating trace as shown in (41), which captures the absence of island effects in clausal comparatives.

(41)　　　Clausal comparative adopted from Grinsell (2012: 46):
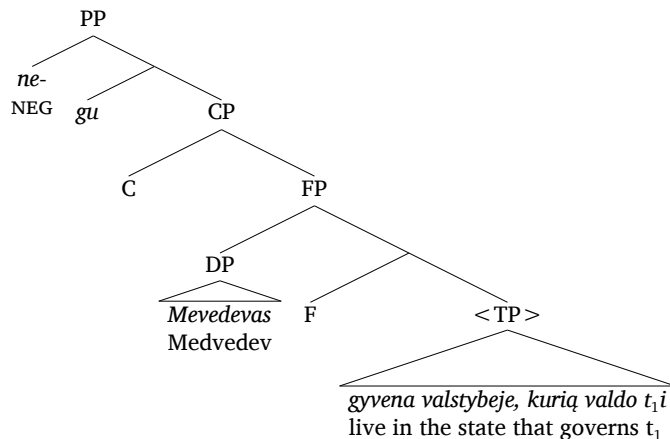


Grinsell's analysis thus is equipped to capture the purported island effects in phrasal comparatives as well as explain the lack of island effects in clausal comparatives. Grinsell's analysis, however, faces a number of challenges that are discussed in subsection 4.2.

## 4.2 Critique of Grinsell (2012)

In this subsection, I will discuss the stipulations Grinsell makes to account for the seeming local relationship between the associate and the remnant as revealed by the diagnostic tests in Section 1. I will then show that the reduced clause analysis does not account for the empirical generalizations discussed in Section 2 with the exception of the purported island effects.

First, to account for case-invariability on the remnant, Grinsell following Merchant (2009), posits an accusative case feature on *p*. To account for the fact that only a DP can serve as a remnant, Grinsell suggests that this fact can be captured either by assuming that only a DP can enter into an Agree relation with the case feature on *p*, or DP raising is triggered by a strong category feature (both Merchant (2009) and Grinsell (2012) remain agnostic with regard to the two options).

Grinsell's reduced clause analysis thus can successfully derive the local effects between the preposition *už* 'than' and the remnant as well as between the matrix clause and the remnant. The analysis is, however, less successful in accounting for the empirical generalizations discussed in Section 2.

First, Grinsell (2012)'s analysis does not capture the fact that Lithuanian phrasal comparatives are ungrammatical with measure phrases. The phrasal comparative with a measure phrase *du metrai* 'two meters' in (42) is incorrectly predicted to be grammatical in Lithuanian. The remnant is an accusative case-marked DP which is not contained within an island, i.e. it does not leave an illicit island violating trace, consequently it should be grammatical.

(42)　　　*Jonas　　aukštesnis　už　　　　　du　　　metrus　　　<aukštas>.
　　　　　　John.NOM　taller.NOM　than.PHRASAL　two.ACC　meter.ACC　tall
　　　　　　'John is taller than two meters.'

Second, Grinsell (2012)'s analysis cannot capture the 'more DP subject' restriction. Grinsell (2012: 46) suggests in passing that the restriction can be analyzed 'as the result of an unelided island-violating trace'. However, the 'more DP subject' restriction cannot be reduced to a prohibition against unelided island-violating traces. In (43), the remnant *Baltą Drobulę* 'White Cloth' does not originate in an island. Under his reduced clause analysis, the phrasal comparative in (43) would be incorrectly predicted to be grammatical in Lithuanian.

(43)　　　*Daugiau　žmonių　　perskaitė　Altorių　Šešėly　už　Baltą　　Drobulę.
　　　　　　more　　　people.GEN　read.PST.3　altar.GEN　shadow.LOC　than　white.ACC　cloth.ACC
　　　　　　'More people read the novel Altoriu Sesely than Balta Drobule.'

In this section, I have shown that the reduced clause analysis developed in Grinsell (2012) needs to make additional stipulation to account for the empirical generalizations that come for free from the direct analysis Most importantly, however, I have shown that the analysis does not account for the empirical generalizations discussed in Section 2.

## 5 Conclusions

Phrasal comparatives can be analyzed as bi-clausal (RCAs) or mono-clausal structures (DAs). Both analyses are attested cross-linguistically (see e.g. Bhatt & Takahashi 2011).

This paper argues that phrasal comparatives in Lithuanian are mono-clausal. In Section 1, I show that a direct analysis receives support from the standard diagnostics used to adjudicate between RCAs and DAs: binding, case-marking on the standard of the comparison and the single remnant restriction. Under the direct analysis proposed in this paper the standard of comparison is a DP. Phrasal comparatives are interpreted via the Parasitic Scope Mechanism, which is subject to one economy constraint: Shortest (Richards 1997). In Section 3, I show that the direct analysis advocated for in this paper captures the whole range of empirical generalizations about Lithuanian phrasal comparatives. Under this analysis, island effects emerge when the associate quantifier raises. To further promote the direct analysis of Lithuanian phrasal comparatives, in Section 4.2, I demonstrate that Grinsell's reduced clause analysis faces serious challenges with regard to its empirical coverage.

Thus far the paper has focused on the proper analysis of Lithuanian phrasal comparatives, however, the empirical discussion has implications for the analyses of phrasal comparatives cross-linguistically. Namely, it calls into question the status of island effects as a deciding diagnostic adjudicating RCAs and DAs.

Island effects were first used as an argument in favor of a reduced clause analysis in Merchant (2009). Merchant (2009) shows that Modern Greek phrasal comparatives exhibit phrasal properties: they license binding of clause-bound reflexive *ton eafto tu* 'himself' and the standard of comparison is invariably accusative-case marked as shown in (44a) and (44b) respectively.

(44)    *Modern Greek* (Merchant 2009: 138, 136)

      a.     Kanenas δen ine psiloteros apo             ton eafto tu.
             n-person NEG is taller       than.PHRASAL the self    his
             'No one is taller than himself.'

      b.     I Maria       pezi kiθara kalitera apo           ton Gianni.
             the Maria.NOM plays guitar better    than.PHRASAL the Giannis.ACC
             'Maria plays the guitar better than Giannis.'

The data presented in (44) thus warrants a direct analysis of Modern Greek phrasal comparatives. However, phrasal comparatives exhibit island sensitivities as shown in (45).

(45)    *Modern Greek* (Merchant 2009: 142)

       *Perisoteri anθropi menun sto      kratos pu kivernai o    Putin apo
       more      people live     in.the state    that governs the Putin than.PHRASAL
       ton Bush.
       the Bush.ACC
       'More people live in the country that Putin governs than live in the country that
       Bush governs.'

Merchant interprets the data in (45) as an argument in favor of RCAs. This argument rests on two assumptions: i) there are certain syntactic configurations extraction from which is degraded or ungrammatical[13] and ii) the remnant moves from its base-generated position to a clause external position to escape ellipsis. While assuming a full-fledged clausal structure for the standard of comparison is at odds with other data in (44), Merchant takes the presence of island effects to be the deciding factor. Consequently, he proposes a reduced clause analysis for Modern Greek

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13    Whether the extraction is ruled out by some syntactic constraint on dependencies (e.g. subjacency, relativized minimality, illicit PF representations, etc.) as assumed in the mainstream generativist syntax or whether it is ruled out by some processing constraints (e.g. Hofmeister & Sag (2010), Chaves & Dery (2019), among others), has no bearing on the current argument, since in both views the same clausal structures are assumed.

phrasal comparatives. The same line of reasoning has been applied for phrasal comparatives in other languages (e.g. Dutch Lindenbergh (2016) and Lithuanian Grinsell (2012)).

This paper has shown that the data that has been interpreted as evidence for island effects can be captured without making reference to underlying syntactic structures. Island violations arise due to the movement of the associate as LF movement cannot be island-violating. Our conclusion is that such data can be consistent with both direct and reduced clause analyses and should not be a priori interpreted as irrefutable evidence for RCAs. This raises the question about a proper analysis of Modern Greek *apo*-comparatives, especially since the Modern Greek phrasal comparatives behave similarly to Lithuanian phrasal comparatives in terms of case-marking on the associate and binding. That being said, it is beyond the scope of this paper to explore an alternative direct analysis of Modern Greek phrasal comparatives and its potential advantages.

Finally, this work is of typological interest as it adds a new empirical generalization into the discussion of variation in phrasal comparatives. Namely in Lithuanian only the subject of the clause can function as the associate. Bulgarian, a Balto-Slavic language, in which the 'more DP subject' constraint is active as it is in Lithuanian, allows non-subjects to be interpreted as associates as shown in (46).

(46)     *Bulgarian* (Pancheva 2009: 385)
         Poseštavam Sofia po-često    ot              Varna.
         visit.1SG    Sofia  more-often than.PHRASAL Varna
         'I visit Sofia more often than (I do) Varna.'

The same holds for Modern Greek *apo*-comparatives as shown in (47), where the associate is the direct object *anglika* 'English'.

(47)     *Modern Greek* (Merchant 2009: 136)
          *Perisoteri anθropi θrelun   na    maθrun anglika apo            germanika.
          more       people   want.3P SUBJ learn.3P English than.PHRASAL German
          'More people want to learn English than German.'

Lithuanian thus seems to be the only language known to exhibit the requirement that the associate is the subject of the sentence. Whether any other language exhibits this empirical generalization requires a thorough description of phrasal comparatives cross-linguistically and therefore is left for future work.

## Abbreviations

1 = first person, 3 = third person, ACC = accusative, DAT = dative, GEN = genitive, LOC = locative, NOM = nominative, PL = plural, PRS = present, PST = past, SG = singular, SUBJ = subjunctive

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## Competing interests

The author has no competing interests to declare.

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