Extraction without an escape hatch: The case of Greek possessor extraction.

Nikos Angelopoulos & Dimitris Michelioudakis
University of Crete & Aristotle University of Thessaloniki

November 24th, 2022

1   Introduction

- Languages have been shown to differ with respect to the availability of possessor extraction: Italian, Hungarian, Chamorro and Greek, Possessor Extraction: ✓ , vs Dutch, English, German Possessor Extraction: X (see Gavruseva 2000 for a cross-linguistic investigation):
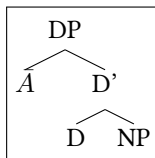
(1)   Possessor Extraction: ✓

    a.   Pjanu$_i$ idhe   tin tenia   t$_i$?
        whose.GEN saw.3SG the movie.ACC
        'Whose movie did she see?'

    b.   TU FARHADI$_i$ idhe   tin tenia   t$_i$?
        the Farhadi.GEN saw.3SG the movie.ACC
        'Farhadi's movie she saw.'

    c.   Sinadise ton skinotheti   tu opiu$_i$ idhe   tin tenia   t$_i$?
        met.3SG the director.ACC the whose.GEN saw.3SG the movie.ACC
        'She met the director whose movie she saw.'
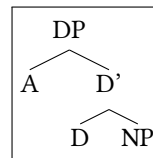
(2)   Possessor Extraction: X

    a.   Whose$_i$ movie did you watch t$_i$?

    b.   *Whose$_i$ did you watch t$_i$ movie?

    c.   *Who$_i$ did you watch t$_i$'s movie?

    d.   *Farhadi's$_i$ I watched t$_i$ movie.

    e.   *Farhadi$_i$ I watched t$_i$'s movie.

    f.   *She met the director whose$_i$ she watched t$_i$ movie.

- In previous literature, the contrast between (1) and (2) has raised the question of what accounts for the difference between languages **allowing** possessor extraction and languages **disallowing** possessor extraction.

- The view from Horrocks and Stavrou (1987): Greek- and English-type languages project a Spec,DP. The difference is reduced to intrinsic properties of Spec,DP in each language: in Greek, Spec,DP is an A-bar position, (3a), whereas in English, it is an A- position, (3b).

(3)   a.

b.

- $\boxed{\text{DP}}\!\rightarrow\!\boxed{\text{CP}}$ parallelism:[1] Spec,DP functions as an escape hatch, just like an intermediate CP:

  (4) [$_{CP}$ Pjanu$_{DP}$ [$_{C'}$ C [$_{TP}$ ipe [.... ... [$_{CP}$ ~~pjanu~~[$_{C'}$ oti$_C$ [$_{TP}$ idhe$_T$ [... ... [$_{DP}$ ~~pjanu~~$_{DP}$ [$_{D'}$ tin [$_{NP}$ tenia$_{NP}$ ~~pjanu~~$_{DP}$]]]]]]]]]]]

- $\boxed{\text{Greek vs English:}}$ prenominal possessors are obligatorily focused or topicalised, whereas this is not the case in English:

  (5) **Greek**
     a. TU JORGHU to vivlio dhiavase.
     b. [$_{DP}$ TU JORGHU [$_{D'}$ to$_D$ vivlio$_{NP}$]]

  (6) **English**
     a. John's book
     b. [$_{DP}$ John [$_{D'}$ s$_D$ book$_{NP}$]]

- **LACUNA 1:** In principle, A-bar movement is possible from an A-position.

- **LACUNA 2:** A **non-trivial prediction** of H&S is that the complex-NP constraint should be entirely inactive in Greek. This is not borne out (Theofanopoulou-Kontou 1993).

  (7) **Nominalized Clauses**
     a. Amfisviti (to) oti i Elena   ehi dhi   tin tenia   tu Farhadi.
         doubt.3SG   the oti the Elena.NOM has seen.3SG the movie.ACC the Farhadi.GEN
         'She doubts that Elena has seen Farhadi's movie.'
     b. Ti$_i$ amfisviti (* to) oti ehi dhi   i Elena   t$_i$?
         what.ACC doubt.3SG   the oti has seen.3SG the Elena.NOM
         'What does she doubt that Elena has seen?'

  (8) **N+CP**
     a. Akuse   ti fimi   oti apelisan ton Jogrho.
         heard.3SG the rumor.ACC that fired.3PL the George.ACC
         'She heard the rumor that they fired George.'
     b. Pjon$_i$ akuse   ti fimi   oti apelisan t$_i$?
         who.ACC heard.3SG the rumor.ACC that fired.3PL
         'Who did she hear the rumor that they fired.'

  (9) a. Arnite   to jeghonos oti apelisan ton Jorgho.
         dispute.3SG the fact.ACC   that fired.3PL the George.ACC
         'She dispute the fact that they fired George.'
     b. *Pjon$_i$ arnite   to jeghonos oti apelisan t$_i$?
         who.ACC dispute.3SG the fact.ACC   that fired.3PL
         'Who do she dispute the fact that they fired.'

- **LACUNA 3:** In contrast to *bona fide* possessor extraction languages, like Hungarian,, that have been argued to allow possessor extraction through Spec,DP, Greek lacks 'possessor agreement' (Gavruseva 2000).

  (10) ki-nek   a vendég-e-∅
        who-DAT the guest-POSS.3SG-NOM
        'Whose guest?'

---

[1]   See Szabolcsi 1994 for the idea of parallelism.

We propose an alternative derivation (in the spirit also of Angelopoulos 2019). It is based on the following hypotheses:

- **Hypothesis 1:** Spec,DP of Greek is not any different from Spec,DP of languages lacking possessor agreement:

 (11)   Spec,DP of Greek is not an escape hatch. The Greek DP is an island.

- **Hypothesis 2:** D in Greek differs from C in that it lacks a Spec. It resembles, however, C in that it projects discourse-related projections (Ntelitheos 2004), Foc(us)P and Top(ic)P.

- **Hypothesis 3:** Movement to these positions is only for interpretive reasons, suggesting that FocP, TopP are criterial positions in Rizzi's (2006) sense:

  (12)   All Spec-positions in the Greek DP are criterial.

- PROPOSAL: DP islandhood can be circumvented as a result of D projecting a left periphery (**Hypothesis 2**).

We adopt the following three assumptions in relation to movement:

- **Assumption i:** No extraction is possible from within the DP directly to DP-external positions.

- **Assumption ii:** XPs moving to DP-peripheral, i.e. criterial, positions undergo criterial freezing.

- **Assumption iii:** Only movements allowed: of the whole DP or of projections containing DP (e.g. whole FocPs, TopPs) or remnants thereof (DP-remnants, FocP-remnants etc.).

(13)
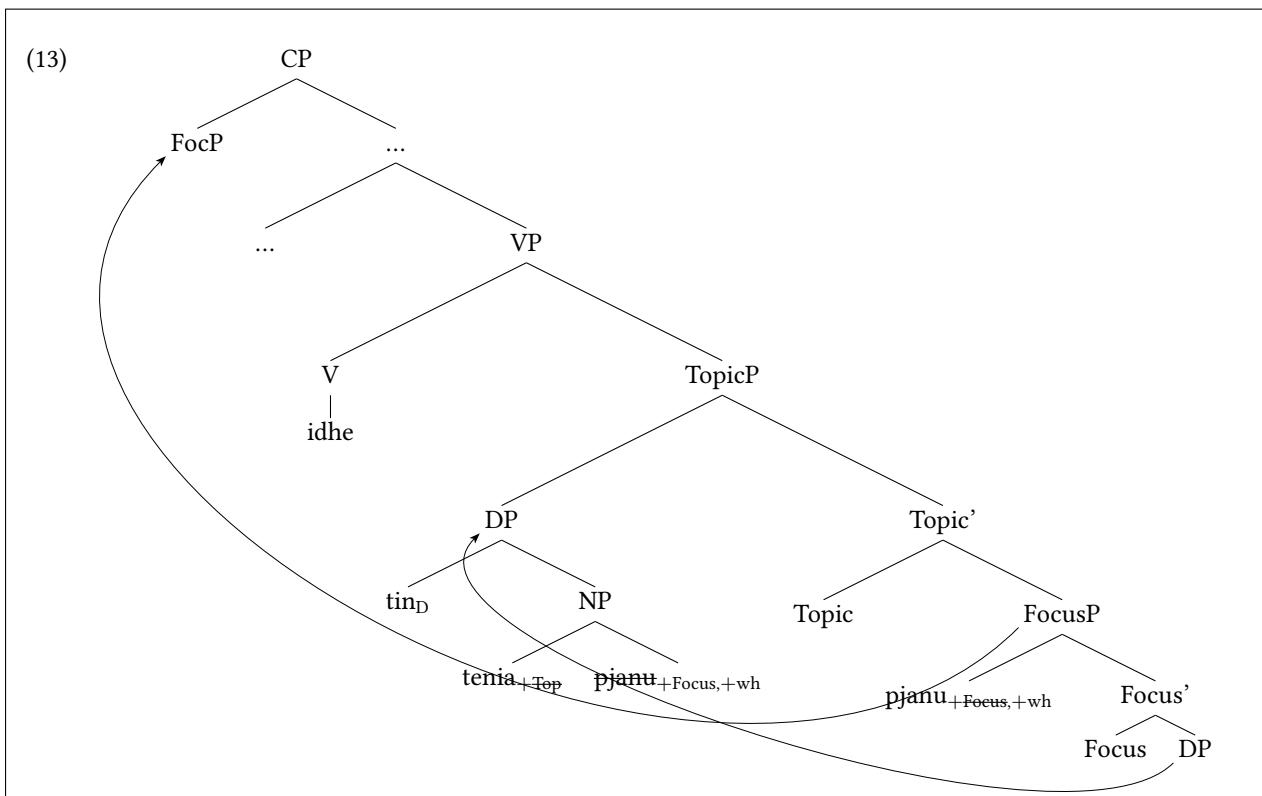
- '*Pjanu*' has two features: [+Foc-part] and [+wh]. In principle, it can satisfy two distinct criteria.

- Moving to Spec-FocusP it satisfies a [Foc-part] criterion. However, it is frozen there.

- In order to satisfy the [+wh] criterion, '*pjanu*' must pied-pipe the whole FocusP. If no Topic-movement has taken place, it pied-pipes the whole '*pjanu tin tenia*' into Spec-CP. If Topic-movement of the remnant DP has taken place, then what is pied-piped is just the FocP-remnant [pjanu t].

- Other contexts in which this set of assumptions will be shown to make correct predictions: (a) **Recursive Genitives**, (b) **PPs**, (c) **NP-dependents**, (d) **relative clauses**, (e) **N+CP constructions**, (f) **Focus movement**.

- From a theoretical point of view, the current analysis is more **parsimonious** than Horrocks and Stavrou (1987); that Spec,DP is an escape hatch is an **unnecessary** extra assumption.

- A theoretical conclusion that follows from our account along with a new cross-linguistic typology of possessor extraction:

  > - **Theoretical Conclusion:** Remnant movement is **allowed** in natural languages (see Stabler 1999, Koopman and Szabolcsi 2000 i.a.), and is restricted by what is independently needed: **criterial-movement**, and principles such as Antilocality (Abels 2003, Kayne 2005).

1.1 Roadmap

- Background Assumptions

- Recursive genitives

- Focused possessors

- PPs

- NP-dependents

- N+CP constructions

- Relative clauses

- Cross-linguistic Typology of Possessor Extraction

2 Background Assumptions

2.1 Argument structure: Possessors

- Possessors are introduced in the structure higher than the possessum/head noun (Alexiadou et al. 2008 i.a.) . They surface postnominally in Greek through movement of the possessum:
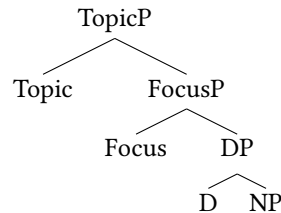
(14)
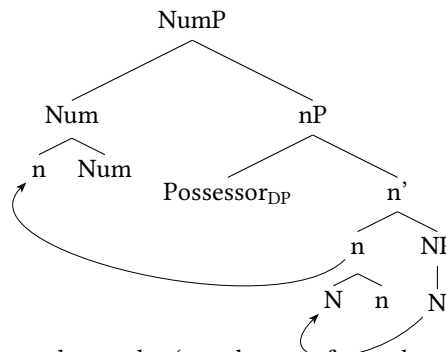
- Other genitive arguments, with different theta-roles (e.g. themes of complex event nominals), may originate lower but are also attracted to the same functional position hosting possessor genitives (see Michelioudakis et al 2023), thus, they also surface postnominally.

2.2 The DP's left periphery

- The DP projects a left periphery, which comprises Topic and Focus projections (Aboh 2004, Ntelitheos 2004, Giusti 1996 i.a.). Foc and Top are Externally Merged higher than the DP, and they are hierarchically organized as TopicP>FocusP (see Rizzi 1997).[2]

(15)

```
                         TopicP
                        /      \
                    Topic     FocusP
                             /      \
                         Focus      DP
                                   /  \
                                  D   NP
```

- We do not find evidence that TopicP can be iterated below FocusP.

- D's left periphery does **not** license a *wh*-criterion because it requires the semantics of a clause–an assertion and/or a presupposition—which is crucially missing in the DP.

2.2.1 Focus

- Focus related movement is responsible for the prenominal placement of the possessor in the pair below:

(16) a. Dhiavasa to vivlio   tu Jani.
          read.1sg the book.acc the John.gen
          'I read John's book.'

     b. Dhiavasa [TU JANI   to vivlio].
          read.1sg   the John.gen the book.acc
          'I read only John's book.'

- **A DP-internal Focus property:** DP-internal focus yields partitivity readings and licences NP-ellipsis, whereas this is not possible with the clause-peripheral Focus position (Alexiadou and Gengel 2011).

    (17) a. Pjo   apo ta vivlia dhiavases?
              which from the books read.2sg
              'Which of the books did you read?'

         b. Dhiavasa TU JORGHU   (to vivlio).
              read.1sg the George.gen   the book
              'I read George's (book).'

         c. # TU JORGHU   dhiavasa.
              the George.gen read.1sg
              'George's I read.'

- FocP in the DP periphery checks a [Foc-part] criterion, related to partitivity, which is distinct from the [Foc] criterion in the CP-periphery, which yields focus-presupposition pairs. A DP may carry both [Foc] and [Foc-Part] as distinct criterial features (see discussion of Focus below).

2.2.2 Topic

- The availability of a DP-internal Topic position is illustrated in the following context:

(18) a. Pjos diavase to vivlio   tu Chomsky?.
          who read.1SG the book.ACC the Chomsky.GEN
          'Who read Chomsky's book?'

      b. I   MARIA   dhiavase [tu Chomsky   to vivlio].
          the Maria.NOM read.3SG   the Chomsky.GEN the book.ACC
          'Mary read Chomsky's book.'

2.2.3 The order of Foc and Top

- The order Topic>Focus is allowed, just like it is predicted by the hierarchy in (68).

(19) a. Pjo   apo ta spitia   tu Jani   ehi pisina?
          which from the houses.ACC the John.GEN has pool
          'Which of John's houses has a pool?'

      b. Tu Jani   to MEGHALO to spiti   ehi   pisina.
          the John.GEN the big.ACC   the house.ACC have.3SG pool
          'George's big house has swimming pool.'   Topic>Focus

- Note, however, that the reverse order, that is, Focus>Topic is not possible suggesting, as noted already, that Topic is not iterated below Focus.

(20) a. Pjo   apo ta meghala spitja   ton filon   su episkeftikes?
          which from the big   houses.ACC the friends.GEN yours visit.2SG
          'Which of your friends' big houses did you visit?'

      b. ?* Episkefthika TU JANI   to meghalo to spiti.
          visited.1SG   the John.GEN the big   the house.ACC
          'I visited George's big house.'   Focus>Topic

2.2.4 Spec,FocP and Spec,TopicP as Criterial Positions

- Following Rizzi (2006), we assume that Foc and Top are criterial positions, that is, positions that are dedicated to the expression of scope-related properties: Q (question), Rel (Relatives), Top (responsible for topic – comment configurations), Foc (yielding Focus – Presupposition configurations), etc.

- In minimalist terms, Foc, Top etc. are heads acting as probes searching for an expression with a matching feature, the goal. The goal (or a larger constituent in cases of pied-piping) is in turn attracted by the probe.

- Given this, criterial checking has the following general format, where X is the Probe, YP is the Goal, and the relevant criterion is satisfied in a Spec-Head configuration:

(21)   [$_{YP}$ XP$_F$ [$_{Y'}$ Y$_F$ ...]]

2.3　Criterial Freezing

- Phrases that are moved to a criterial position are subject to criterial freezing (Rizzi 2006).[3,4]

    (22)　**Criterial freezing:** When a criterial configuration is created, the element carrying the criterial feature in the moved phrase, the criterial goal, is not accessible to further movement.

    (23)　a.　Bill wonders [[which$_Q$ book]$_i$ Q [John published t$_i$ this year.]]
    　　　 b.　* Which$_Q$ book does Bill wonder [t$_i$ Q John published t$_i$ this year?]]

3　Supporting evidence

3.1　Recursive genitives

- Recursive genitives present a very intricate set of patterns described as distinct **properties** below.[5]

    (24)　Ihe　　tus dhiskus　ton kalitexnon tis　Afrikis.
    　　　 had.3SG the disks.ACC the artists.GEN the Africa.GEN
    　　　 'He had the disks of the Africa's artists.'

- **Property 1:** the most embedded genitive cannot move across the accusative argument.

    (25)　* Ihe　　pjas　　horas$_i$　　tus dhiskus　ton kalitexnon t$_i$?
    　　　　had.3SG which.GEN country.GEN the disks.ACC the artists.GEN
    　　　　'Of which country's artists did he have disks?'

- **Property 2:** the most embedded genitive cannot move into the left periphery of the clause.

    (26)　* Pjas　　　horas$_i$　　ihe　　tus dhiskus　ton kalitexnon t$_i$?
    　　　　which.GEN country.GEN had.3SG the disks.ACC the artists.GEN
    　　　　'Of which country's artists did he have disks?'

- **Property 1** and **Property 2** cannot be excluded under Horrocks and Stavrou (1987), unless an *ad hoc* modification of barrierhood is added.

    (27)　[$_{CP}$ Pjas horas [... ihe [$_{DP}$ ~~pjas horas~~ [$_D$ tus dhiskus [$_{DP}$ ~~pjas horas~~ [$_D$ ton kalitehnon ~~pjas horas~~]]]].

3　Criterial freezing follows in Rizzi (2006) from more general principles, namely, **Maximality**:

(i)　**Maximality:**
　　　Phrasal movement can only involve maximal objects with a given label.

　　After movement of *which book* in (23a), it becomes non-maximal because it is dominated by a projection with the same feature, namely, Q.
4　Even though a phrase moved to a criterial position is frozen, subextraction out of a phrase in a criterial position is possible in order to satisfy a different criterion.

(ii)　Pistevo　　oti arthra$_{Topic}$　Topic dhen kseri　　　[posa$_Q$　　~~arthra~~]$_i$ Q mehri cthes　　ehi　　　dimosiefsi t$_i$.
　　　 believe.1SG that articles.ACC　　not know.3SG how many　　　　until yesterday have.3SG published
　　　 'I believe that he does not know how many articles he has published?'

5　The most embedded genitive DP exhibits the same properties in case it is Topicalized.

- **Property 1:** the most embedded genitive cannot move across the accusative argument. **Property 2:** the most embedded genitive cannot move into the left periphery of the clause.

(28)
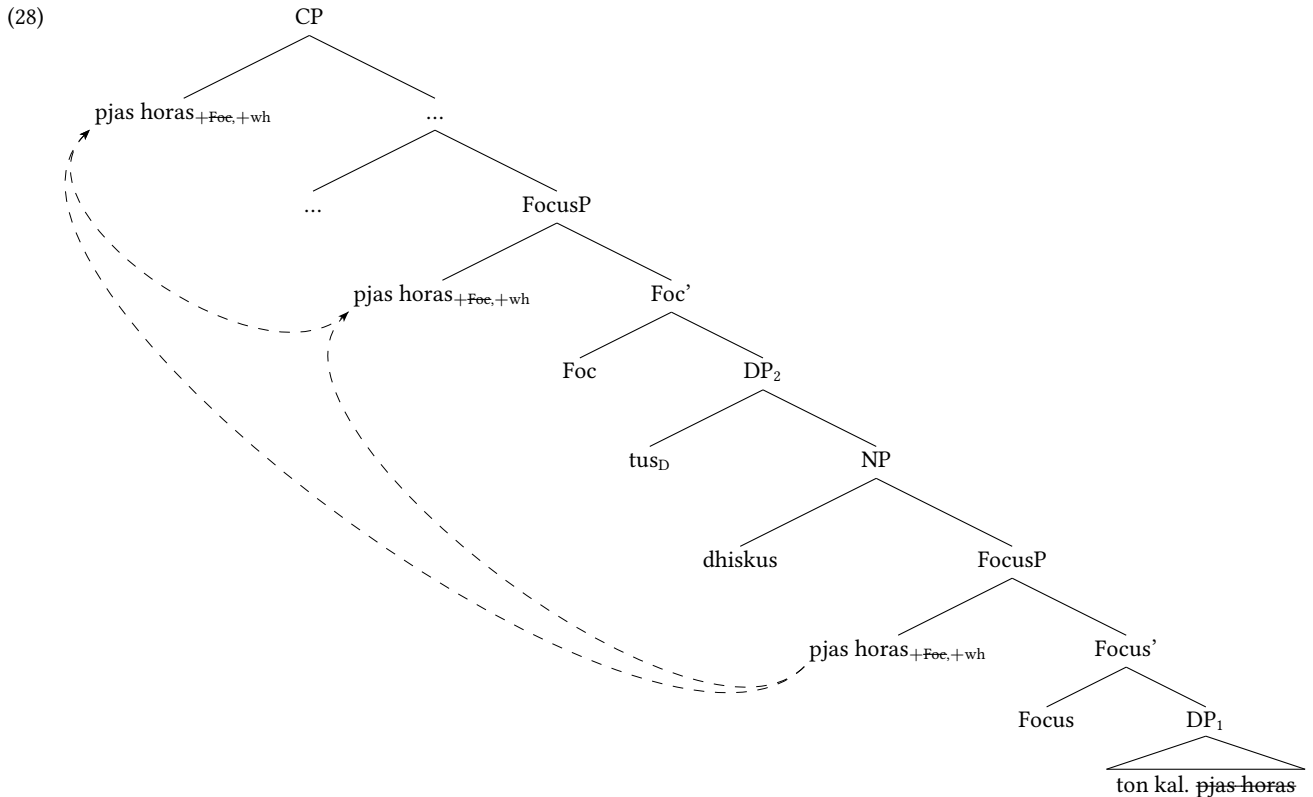
➤ Because Spec,FocP is a criterial position, *pjas horas* undergoes criterial freezing. Because of this, all movement steps illustrated above are ruled out, thus, accounting for **Property 1** and **Property 2**.

➤ Additional considerations that also rule out these movement steps: (a) movement from Spec,FocusP to Spec,FocusP does not satisfy any criterion, so it is in principle unmotivated, (b) movement from Spec,FocusP to Spec,DP is not allowed because movement across a DP is not allowed.

➤ Alternative derivations are blocked; for instance, (29) is not licit because it involves movement of *pjas horas* across a DP, which is independently ruled out. Similarly, FocP of (13) cannot move out of the DP.

(29)   [$_{FocusP}$ pjas horas [$_{Focus'}$ Focus [$_{DP}$ tus$_D$ [$_{NP}$ dhiskus$_{NP}$ [$_{DP}$ ton$_D$ [$_{NP}$ kalitehnon$_{NP}$ p̶j̶a̶s̶ ̶h̶o̶r̶a̶s̶$_{DP}$]]]]]

- **Property 3:** the most embedded genitive can be moved as part of a larger constituent containing the intermediate genitive.

(30)   a.   [Ton kalitexnon pjas   horas]$_i$ ihe   tus dhiskus   t$_i$?
              the artists.GEN which.GEN country.GEN had.3SG the disks.ACC
              'Of which country's artists did he have disks?'

        b.   [Pjas   horas   ton kalitexnon]$_i$ ihe   tus dhiskus   t$_i$?
              which.GEN country.GEN the artists.GEN   had.3SG the disks.ACC
   'Of which country's artists did he have disks?'

- We are going to focus on the first order; see Appendix for the second order.

(31)
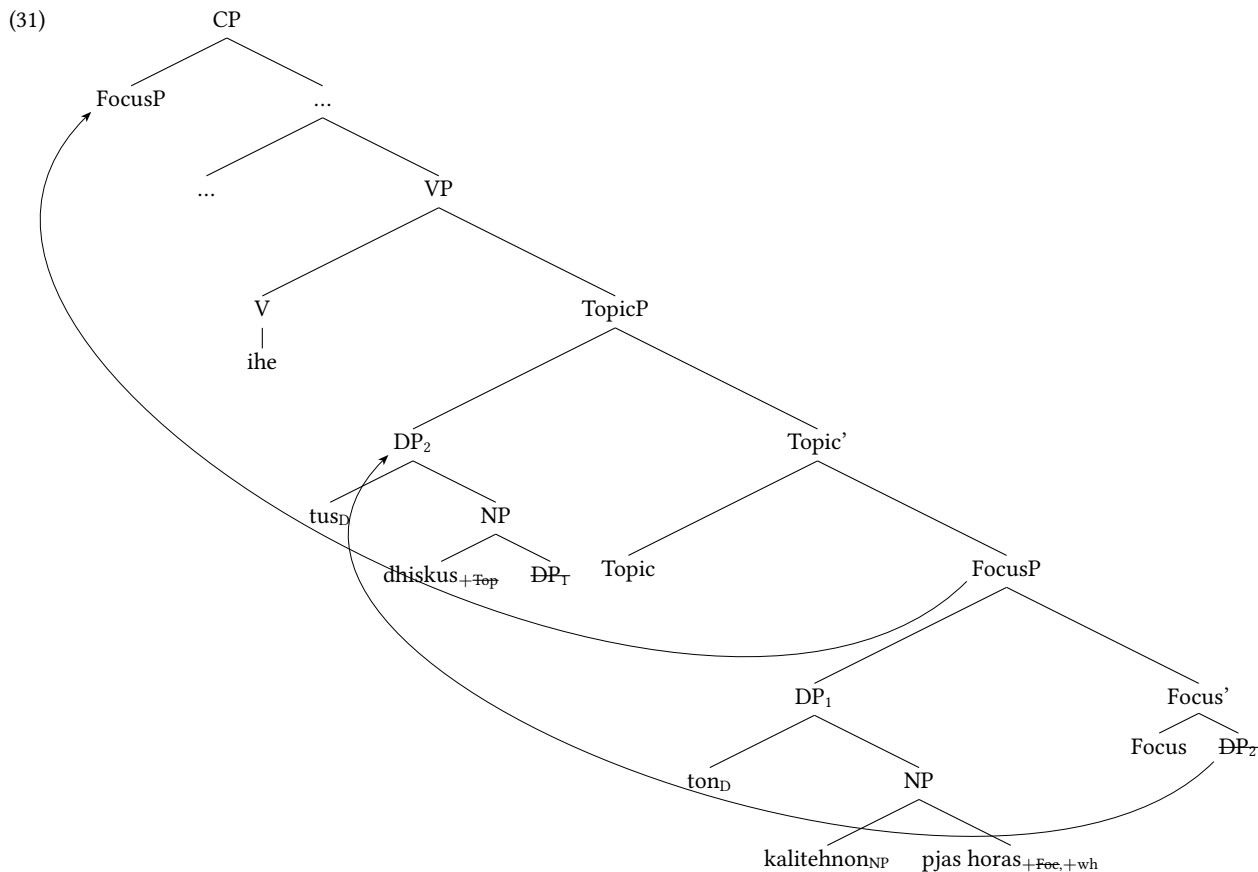
➢ The +Foc feature of *pjas horas* is satisfied in Spec,FocP of the accusative object, *tus dhiskus* 'the disks.' *Pjas horas* pied pipes DP$_1$ below which contains the intermediate genitive, *ton kalitehnon*.

➢ The DP remnant, DP$_2$, carries a +Topic feature that is satisfied into a higher Topic projection.

➢ *Pjas horas* pied-pipes FocP into the left periphery where it satisfies the +*wh*-criterion.

- **Property 4:** the possessum can be separated from the recursive genitives.

(32)   Pjus   dhiskus$_i$ ihe   t$_i$ ton kalitehnon tis Afrikis?
        which disks   had.3sg   the artists.GEN th Africa.GEN
        'Which disks of Africa's artists did he have?'

(33)
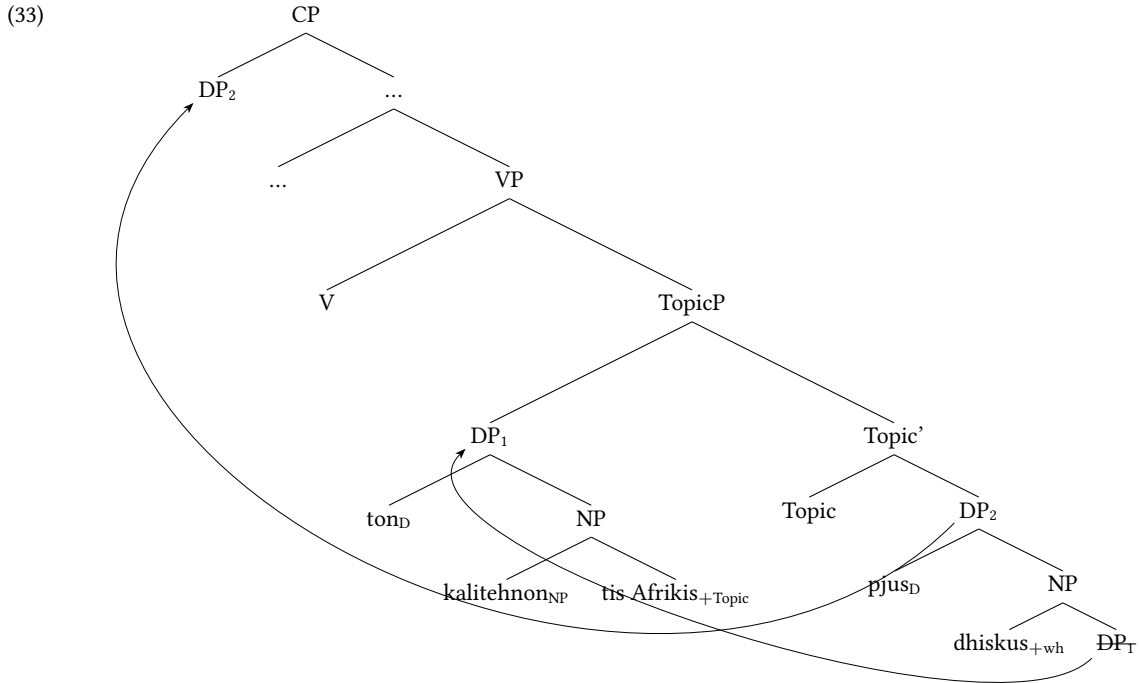
➤ DP$_1$ or *tis Afrikis* carry a +Topic feature that is satisfied into Spec,TopP of DP$_2$.

➤ After movement of DP$_1$, the DP$_2$ remnant becomes a constituent which, as such, undergoes movement into the left periphery of the clause in order to satisfy the *wh*-criterion.

3.2   Focused Possessors

• Our analysis predicts that there can be no successive-cyclic A'-movement in DP recursion. This also applies to focused genitive DPs.

(34)   a.   Dhiavasa ti dhiatrivi   prothipurghu   SOVARIS xoras.
            read.1SG the dissertation.ACC prime minister.GEN serious country.GEN
            'I read the dissertation of the prime minister of a serious country.'

      b.   ? Dhiavasa ti   dhiatrivi   SOVARIS xoras   prothipurghu.
            read.1SG the dissertation.ACC serious country.GEN prime minister.GEN
            'I read the dissertation of the prime minister of a serious country.'

      c.   Dhiavasa SOVARIS xoras   prothipurhu   ti dhiatrivi.
            read.1SG serious country.GEN prime minister.GEN the dissertation.ACC
            'I read the dissertation of the prime minister of a serious country.'

• The order in (34b) is accounted for: *sovaris horas* undergoes Focus movement higher than *prothipurghu*.

(35)   [$_{DP}$ tin$_D$ [$_{NP}$ dhiatrivi$_{NP}$ [$_{FocusP}$ sovaris horas$_{NP}$ [$_{Focus'}$ Focus [$_D$ D [$_{NP}$ prothipurghu$_{NP}$ ~~sovaris horas~~$_{NP}$]]]]]]]

• The order in (34c) is accounted for: the FocP [SOVARIS xoras prothipurghu] undergoes Topic-movement over the DP '*ti dhiatrivi*.'

(36)   [$_{TopicP}$ [$_{FocusP}$ sovaris horas$_{NP}$ [$_{Focus'}$ Focus [$_{NP}$ prothipurghu$_{NP}$ ~~sovaris horas~~$_{NP}$]] [$_{Topic'}$ Topic [$_{DP}$ tin$_D$ [$_{NP}$ dhiatrivi$_{NP}$ ~~FocusP~~]]]]]

- Interestingly, the most embedded genitive cannot undergo movement past the accusative possessum:

  (37) * Dhiavasa SOVARIS xoras   ti   dhiatrivi   prothipurghu.
        read.1SG serious country.GEN the dissertation.ACC prime minister.GEN
        'I read the dissertation of the prime minister of a serious country.'

- This follows under our account:

  (38)
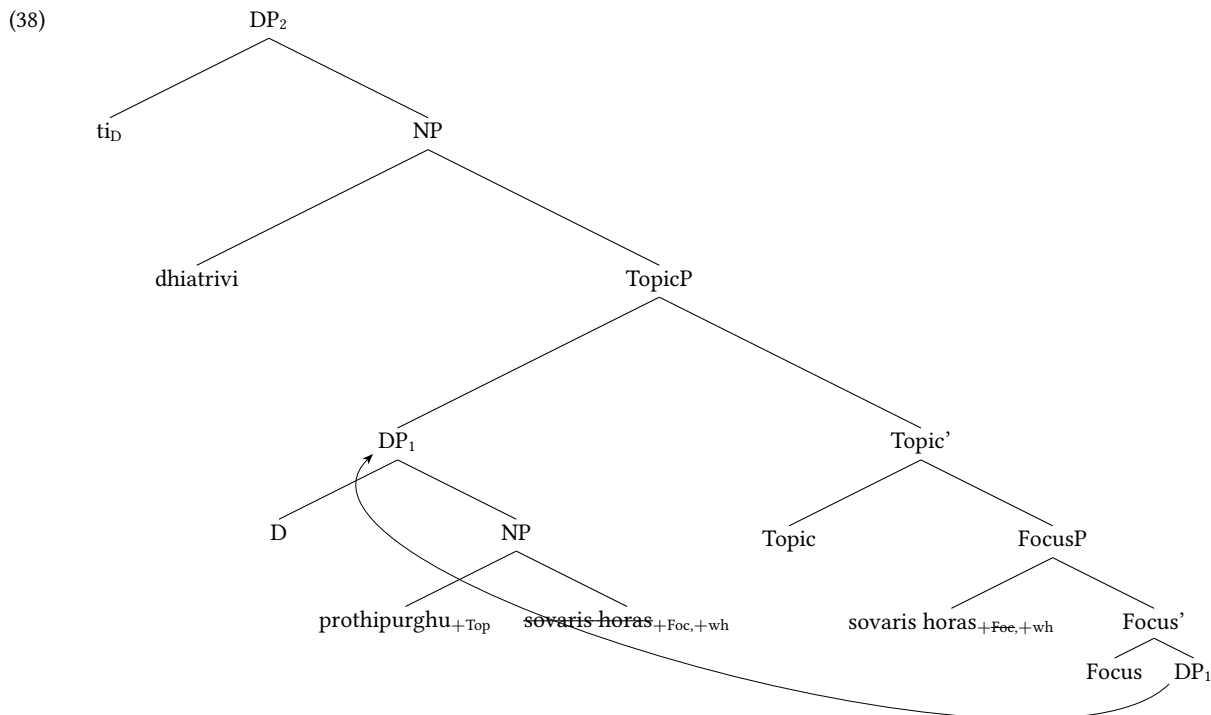
- The remnant FocP comprising SOVARIS xoras has no unchecked criterial [Foc-Part] feature left, so it cannot undergo movement into the DP-periphery of '*ti dhiatrivi.*'

- Given that successive cylcic movement is not allowed in DP-recursion, it is surprising that successive-cyclic movement in pairs like the following:

  (39) a. Dhiavasa tu PROTHIPURGHU   ti   dhiatrivi
            read.1SG the prime minister.GEN the dissertation.ACC
            'I read the dissertation of the prime minister.'

       b. Tu PROTHIPURGHU   dhiavasa ti   diatrivi.
            the prime minister.GEN read.1SG the dissertation.ACC
            'I read the dissertation of the prime minister.'

- As there are in fact two kinds of focus feature, satisfying separate criteria, the DP 'tu PROTHIPURGHU' in the last example carries both a [Foc-Part] feature and a contrastive [Focus] feature, appropriate for a CP-peripheral criterial position.

- The DP 'tu PROTHIPURGHU' first moves to a DP-Focus position to check its [Foc-Part] feature; the DP-remnant, whose head is endowed with a [Top] feature, undergoes Topic movement and, finally, the contrastive [Foc] feature of PROTHIPURGHU triggers pied-piping of the whole FocusP-remnant into a clausal Spec-FocusP.

(40)
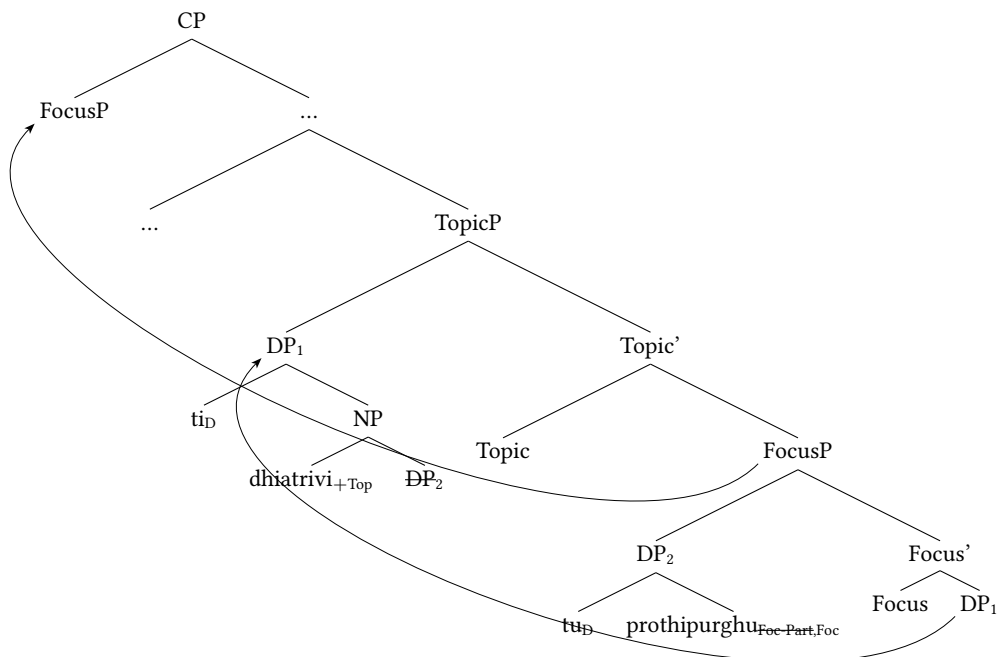
- Note that since there is no more than one kind of [Topic], the counterpart of (39b) is possible with a clause-peripheral topicalised element, originating DP-internally.

(41) a. Ipa   oti to idha   tu Jani   to spiti.
          said.1SG that it.CL saw.1SG the John.GEN the house.ACC
          'I said that I saw John's house.'

      b. *Ipa   oti tu Jani   to idha   to spiti
          said.1SG that the John.GEN it.CL saw.1SG the house.ACC
          'I said that I saw John's house.'

3.3   PPs

- Extraction of possessors from PPs presents us with a very intriguing pattern (data from Angelopoulos 2019):

(42) Harije   ja tin epitihia   tu Jorghu.
      be.happy.3SG for the success.ACC the George.GEN
      'She was happy for John's success.'

- **Property 1:** the possessor can surface in a prenominal position.

(43) Harike   ja (PJANU)   tin epitihia   (pjanu)?
      was.happy.3SG for   whose.GEN the success.ACC   whose.GEN
      'For whose success was she happy?'

- **Property 2:** the possessor can**not** surface outside the PP.

(44) *Pjanu   harike   ja tin epitihia?
      whose.GEN was.happy.3SG for the success.ACC
      'For whose success was she happy?'

- **Property 3:** the possessum can be separated from the possessor and the P.

  (45) Ja pjanu   harike   tin epitihia?
        for whose.GEN was.happy.3SG the success.ACC.
        'For whose success was she happy?'

- **Property 1:** the possessor can surface in a prenominal position.

  (46)   [$_{PP}$ ja$_P$ [$_{FocP}$ pjanu$_{Foc}$ [$_{Foc'}$ Foc [$_{DP}$ tin$_D$ [$_{NP}$ epitihia ~~pjanu~~]]]]]

  ➢ In the structure above, the genitive argument, *pjanu*, has a +Foc feature satisfied via movement to Spec,FocP to the left of the accusative argument *tin epitihia*.

- **Property 2:** the possessor can**not** surface outside the PP.

  ➢ Because Spec,FocP is a criterial position, the possessor undergoes criterial freezing, and, can thus not be moved out of the PP. This cannot be due to the PP being an island because the possessum can be moved out of the PP.

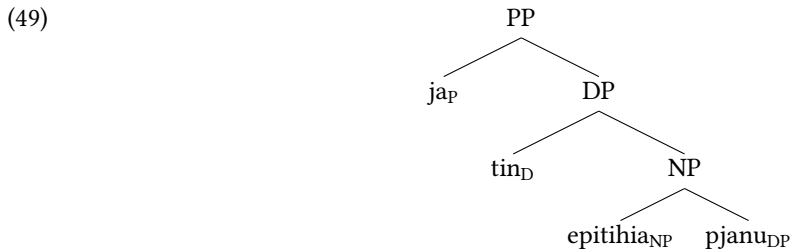- **Property 3:** the possessum can be separated from the possessor and the P.

(47)
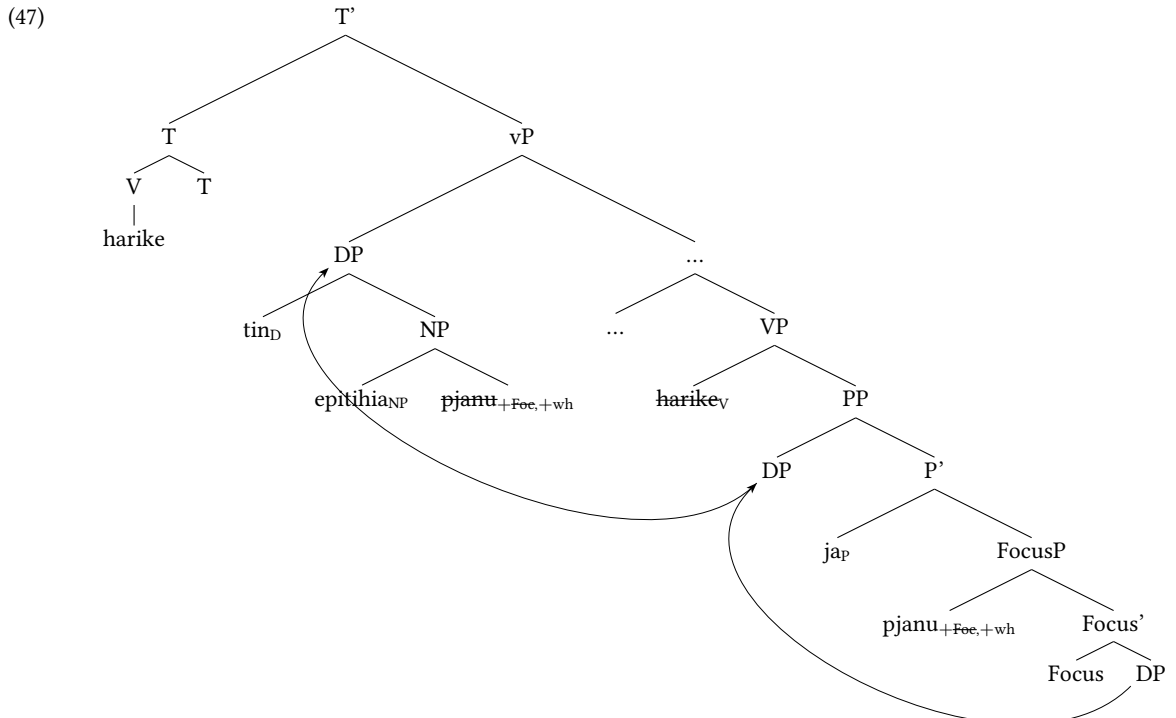
  ➢ *Pjanu* has a +Foc and a +*wh*-feature. The first is satisfied via movement into Spec,FocP DP-internally.
  ➢ The accusative possessum undergoes movement into into a vP-adjunct position.
  ➢ In order to satisfy its +wh-feature, *pjanu* pied-pipes FocP into the left periphery.

- Under Horrocks and Stavrou (1987), (45), repeated below, is predicted to be ungrammtical, contrary to fact:

(48)   Ja pjanu   harike   tin epitihia?
         for whose.GEN was.happy.3SG the success.ACC
         'For whose success was she happy?'

➢ As shown below, *tin epitihia* does not form a constituent so the fact that it can be separated from the possessor and the P is not accounted for.

(49)

```
                        PP
                      /    \
                   ja_P     DP
                           /  \
                        tin_D   NP
                               /   \
                       epitihia_NP  pjanu_DP
```

➢ Since the PP is not an island, the possessor should be able to undergo successive cyclic movement, through Spec,DP and Spec,PP into Spec,CP. But, as shown in (44), this is not the case.

Prepositions as Phases

- If Ps are phases, and, thus, permit extraction of DPs out of them and subsequently move to the left periphery, as in (47), a question that arises is what accounts for the ungrammaticality of (50).

  (50)   * Ja harike tin epitihia.
           for was.happy.3SG the success.ACC
           'She was happ for the success.'

  (51)
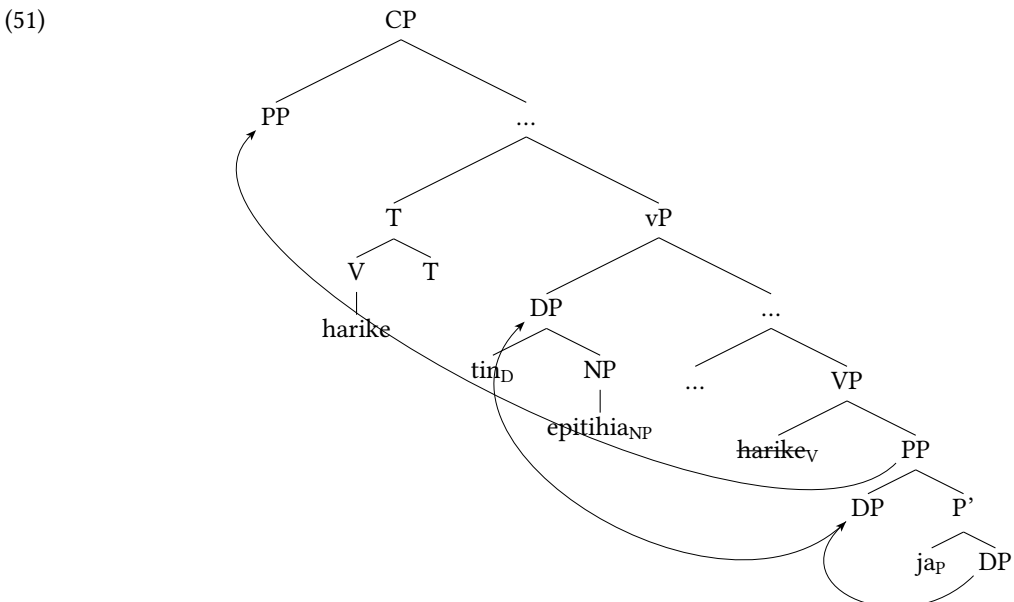
➢ DP movement from P's complement position into Spec,PP violates Antilocality (Abels 2003, Grohmann 2003, Kayne 2005 i.a.) that prevents 'too short' phrasal movement: *$[_{XP}$ YP X $t_{YP}]$.

➢ In (47), Antilocality is not violated because the accusative possessum can only be moved if the possessor has moved into a higher Specifier, thus, creating more space.

➢ We predict that creating more space within the DP will in turn allow more extraction possibilities.

(52)   * Ja harike tin epitihia.
          for was.happy.3SG the success.ACC
          'She was happ for the success.'

➢ (53) a.   Harike   ja ekini tin epitihia   i   c.   Harike   ja tin meghali tin
              be.happy.3SG for that the success.ACC the   be.happy.3SG for the big   the
              Maria.   epitihia   i   Maria.
              Maria.NOM   success.ACC the Maria.NOM
              'Maria became happy for that success.'   'Maria became happy for the big success.'

       b.   Ja ekini harike   tin epitihia   i   d.   Ja tin meghali harike   tin
              for that be.happy.3SG the success.ACC the   for the big   be.happy.3SG the
              Maria.   epitihia   i   Maria.
              Maria.NOM   success.ACC the Maria.NOM
              'Maria became happy for that success.'   'Maria became happy for the big success.'

➢ Postverbal subjects occupy their base position in Spec,vP (see Alexiadou and Anagnostopoulou 2001 i.a.), so
the surface position of the possessum in (53) should be a scrambling position above the vP.

A Holmberg's Generalization effect

- Once the accusative possessum is moved out of the PP, note that the PP must be preceding it. This is reminiscent
of Holmberg's Generalization (Holmberg 1999, (1a-1b)).[6]

(54) a.   Ja pjanu   harike   tin   b.   * Harike   tin epitihia   i
              for whose.GEN was.happy.3SG the   be.happy.3SG the happiness.ACC the
              epitihia   i   Maria?   Maria   ja pjanu.
              success.ACC the Maria.NOM   Maria.NOM for whose.GEN
              'For whose success was Maria happy?'   'Maria was happy for whose success?'

(55) a.   Jag kysste **henne** inte [$_{VP}$ t$_v$ **t**$_o$].   b.   * Jag har   **henne** inte [$_{VP}$ kysst **t**$_o$].
              I   kissed her   not   I   have her   not   kissed
              'I did not kiss her.'   'I have not kissed her'

3.4   NP-Dependents

- When an NP e.g. *tenia* 'movie' is combined with a PP-dependent and a genitive possessor, the PP follows the
genitive possessor, (56).

(56)   Idha   tin tenia   tu Gavra   ja tin Arta.
              saw.1SG the movie.ACC the Gavra.GEN for the Arta.ACC
              'I saw Gavra's movie for Arta.'

- **Property 1:** The PP cannot surface before the possessum:

  (57) * Idhe   ja pja   poli   tin tenia   tu Gavra?
        saw.3sg for which.acc city.acc the movie.acc the Gavra.gen
        'She saw Gavra's movie for which city?'

- **Property 2:** The PP cannot be separated from the possessum and the possessor:

  (58) * Ja pja   poli   idhe   tin tenia   tu Gavra?
        for which city.acc saw.3sg the movie.acc the Gavra.gen
        'She saw Gavra's movie for which city?'

- **Property 3:** the possessor can be stranded postverbally whereas the accusative possessum, alone or together with the PP-dependent can be moved to the left periphery.

  (59) ? Pja   tenia   ja tin Arta   idhe   tu Gavra?
        which movie.acc for the Arta.acc saw.3sg the Gavras.gen
        'Which movie of Gavras for Arta did she see?'

- **Property 2:** The PP cannot be separated from the possessum and the possessor.

(60)
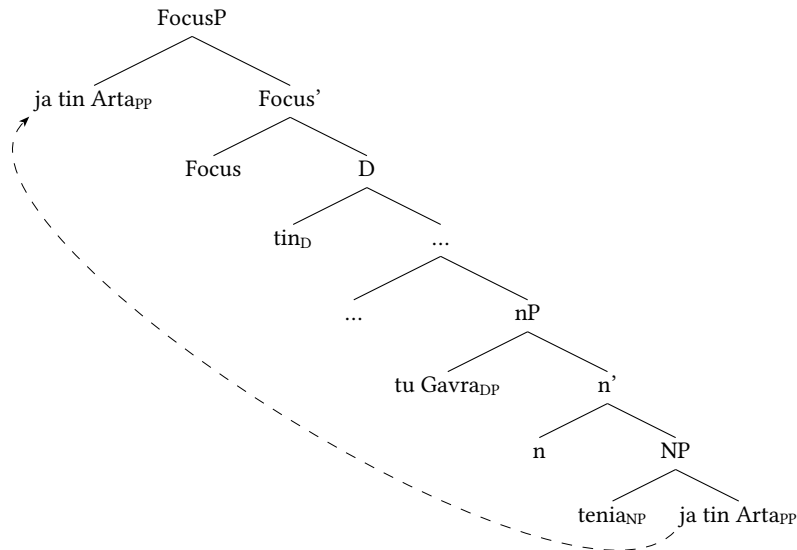
➢ Movement out of a DP is contingent upon movement into the DP's left periphery.

➢ However, movement of the PP into the D's left periphery is not possible because n is a phase, and its phase edge is occupied.

➢ Since movement of the PP into the left periphery is not possible (cf. **Property 1**), the fact that it cannot be separated from the possessum and the possessor follows.

- **Property 3:** the possessor can be stranded postverbally whereas the accusative possessum, alone or together with the PP-dependent can be moved to the left periphery.

(61)   [$_{TopicP}$ [$_{DP}$ tu Gavra] [$_{Topic'}$ Topic [$_{DP}$ pja$_D$ [$_{NP}$ tenia$_{NP}$ [$_{DP}$ ~~tu Gavra~~] [$_{PP}$ ja tin Arta]]]]]]

➢ The possessor, *tu Gavra*, carries a +Topic feature licensed in Spec,TocP.

➢ The accusative possessum *pja tenia* carries a *wh*-feature that is satisfied via pied-piping of the DP remnant comprising the DP *pja tenia* and the PP *ja tin Arta* into the left periphery of the clause.

- In the absence of left peripheral projections higher than the DP, as in Horrocks and Stavrou (1987), *pja tenia* does not form a constituent, either alone or with the PP, so (59) cannot be generated.

(62)   [$_{DP}$ pja$_D$ [$_{NP}$ tenia [$_{DP}$ tu Gavra] [$_{PP}$ ja tin Arta]]]

4   N+CP constructions

- We return to one of the puzzle raised at the beginning: DPs show different island properties.

(63)   a.   Akuse   ti fimi   oti apelisan ton Jogrho.
            heard.3SG the rumor.ACC that fired.3PL the George.ACC
            'She heard the rumor that they fired George.'

       b.   Pjon$_i$ akuse   ti fimi   oti apelisan t$_i$?
            who.ACC heard.3SG the rumor.ACC that fired.3PL
            'Who did she hear the rumor that they fired.'

(64)   a.   Arnite   to jeghonos oti apelisan ton Jorgho.
            dispute.3SG the fact.ACC   that fired.3PL the George.ACC
            'She dispute the fact that they fired George.'

       b.   *Pjon$_i$ arnite   to jeghonos oti apelisan t$_i$?
            who.ACC dispute.3SG the fact.ACC   that fired.3PL
            'Who do she dispute the fact that they fired.'

- We predict that the DP in (63b) is well-formed if it projects a left periphery, thus allowing the alternative derivation we proposed. On the other hand, (64b) should be ruled out because the DP does not project a left periphery and remnant movement is not possible.

- Using determiner spreading as a diagnostic for D's left periphery (Horrocks & Stavrou 1989 i.a.), we show that this prediction is borne out; a complex NP with *fimi* has a left periphery because it allows determiner spreading, (65a), whereas *jeghonos* does not allow a left periphery, as shown by the unavailability of determiner spreading, (65b).

(65)   a.   Sxoliasa   ki egho tin ashimi (ti) fimi oti eklepses   100000 evro.
            commented.1SG also I   the terrible   the rumor that you-embezzled 100000 euros
            'I commented on the terrible rumor that you stole 100000 euros.'

       b.   Sxoliasa   ki egho to dhisaresto (* to) jeghonos oti eklepses   100000 evro.
            commented.1SG also I   the sad   the fact   that you-embezzled 100000 euros
            'I commented on the terrible rumor that you stole 100000 euros.'

- Since the availability of D's left periphery is ***not*** a fixed property of all DPs, but it varies with the noun instead, we argue that whether a nominal projects a left periphery is lexically determined (by n/N).

- This might suggest that n is a phase head, an assumption that was also discussed previously, because it behaves like C, a *bona fide* phase head, in determining whether a left periphey is projected or not.

5   Relative clauses

- **Property:** Relative clauses block extraction of any kind.

  (66) a.   Idhe   to vilio   pu edhose o Kostas   s-tin Elena.
             saw.3SG the book.ACC that gave.3SG the Kostas.NOM to-the Elena
             'She saw the book that Kostas gave to Elena.'

       b. *Pjanu   idhe   to vilio   pu edhose o Kostas?
             who.DAT saw.3SG the book.ACC that gave.3SG the Kostas.NOM
             'Whom did you see the book that Kostas gave to.'

- **Proposal**

  (67)   [$_{DP}$ D [$_{CP}$ vivlio [$_{C'}$ pu$_C$ [$_{TP}$ ...]]]]

➢ C is a phase, so extraction from within the relative clause must always take place through Spec,CP.

➢ However, Spec,CP is already occupied by the head of the relative (Kayne 1994), so extraction is not allowed out of the relative.

6   Cross-linguistic variation

(68)
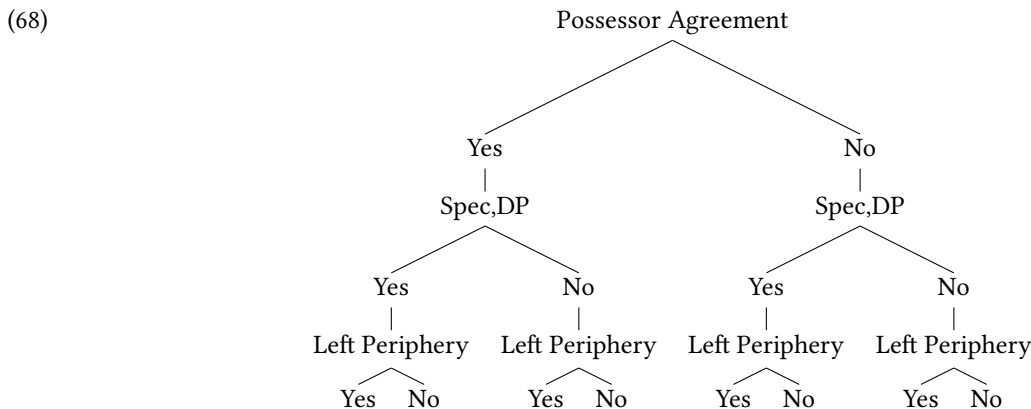
7   Conclusion

- Spec,DP of Greek is different from Spec,CP in that the first is not an escape hatch.

- Yet, it resembles the clausal left periphery in that it projects left peripheral projections encoding Focus (denoting partitivity) or Topic.

- These count as criterial positions because movement into them is only for interpretive purposes.

- Possessor extraction is movement of a remnant (DP- or FocP-remnant), as was shown in a number of different contexts.

- As an overall conclusion, remnant movement is available DP-internally too, however, it is restricted by what is independently needed, movement taking place for criterial reasons etc.

References

Abels, K. (2003). *Successive cyclicity, anti-locality, and adposition stranding*. University of Connecticut.

Aboh, E. O. (2004). Topic and focus within D. *Linguistics in the Netherlands 21*(1), 1–12.

Alexiadou, A. and E. Anagnostopoulou (2001). The subject-in-situ generalization and the role of case in driving computations. *Linguistic inquiry 32*(2), 193–231.

Alexiadou, A. and K. Gengel (2011). Classifiers as morphosyntactic licensors of np ellipsis: English vs. romance. In *Proceedings of NELS*, Volume 39, pp. 15–28.

Alexiadou, A., L. Haegeman, and M. Stavrou (2008). Noun phrase in the generative perspective. In *Noun Phrase in the Generative Perspective*. De Gruyter Mouton.

Angelopoulos, N. (2019). *Complementizers and Prepositions as probes: Insights from Greek*. University of California, Los Angeles.

Fox, D. and D. Pesetsky (2005). Cyclic linearization of syntactic structure.

Gavruseva, E. (2000). On the syntax of possessor extraction. *Lingua 110*(10), 743–772.

Giusti, G. (1996). Is there a FocusP and a TopicP in the Noun Phrase structure? *Working Papers in Linguistics, 6.2, 1996, pp. 105-128*.

Grohmann, K. K. (2003). *Prolific domains: On the anti-locality of movement dependencies*, Volume 66. John Benjamins Publishing.

Holmberg, A. (1999). Remarks on holmberg's generalization. *Studia linguistica 53*(1), 1–39.

Horrocks, G. and M. Stavrou (1987). Bounding theory and greek syntax: Evidence for wh-movement in np. *Journal of linguistics 23*(1), 79–108.

Kayne, R. S. (1994). *The antisymmetry of syntax*, Volume 25. MIT press.

Kayne, R. S. (2005). *Movement and silence*, Volume 36. Oxford University Press New York.

Koopman, H. J. and A. Szabolcsi (2000). *Verbal complexes*. Number 34. MIT Press.

Ntelitheos, D. (2004). Syntax of elliptical and discontinuous nominals. *Unpublished MA dissertation, UCLA*.

Rizzi, L. (1997). The fine structure of the left periphery. In *Elements of grammar*, pp. 281–337. Springer.

Rizzi, L. (2006). On the form of chains: Criterial positions and ECP effects. In L. L.-S. Cheng and N. Corver (Eds.), *Wh-movement: Moving on*, Number 42 in Current Studies in Linguistics, pp. 97–134. Cambridge, MA: MIT Press.

Roussou, A. (2000). On the left periphery. *Journal of Greek linguistics 1*, 63–92.

Stabler, E. P. (1999). Remnant movement and complexity. *Constraints and resources in natural language syntax and semantics 2*, 299–326.

Szabolcsi, A. (1994). The noun phrase. In *The syntactic structure of Hungarian*, pp. 179–274. Brill.

Theofanopoulou-Kontou, D. (1993). Domi tis OF ke metakinisi tu erotimatiku. *9*, 29–53.

.1   Bare nouns

- Bare nouns also allow possessor extraction, and this is predicted by our account because they also have a left periphery, as shown below:

(69)   a.   Efagha faghito tis manas   mu.
            ate.1SG food.ACC the mother.GEN mine.GEN
            'I ate my mother's food.'

       b.   Pjanu   efaghes faghito?
            whose.GEN ate.1SG   food.ACC
            ''Whose food did you eat?

       c.   Efagha TIS MANAS   MU   faghito.
            ate.1SG the mother.GEN mine.GEN food
            'I ate my mother's food.'

- Thus, our account is orthogonal to the question whether bare nouns are NPs or DPs because nothing prevents a N as well to have a left periphery.

.2   Indefinite Determiners

- **Property 1:** Just like definite DPs, extraction is possible from indefinite DPs.

(70)   a.   Sinadisa ton skinotheti   tu opiu   iha   dhi mia tenia.
            met.1SG the director.ACC the whose.GEN had.1SG seen a   movie
            'I met the director whose movie I had seen.'

       b.   Sinadisa ton skinotheti   tu opiu   iha   dhi kapja tenia.
            met.1SG the director.ACC the whose.GEN had.1SG seen some movie
            'I met the director whose movie I had seen.'

(71)   a.   Sinadisa ton skinotheti   tu opiu   mia tenia iha   dhi.
            met.1SG the director.ACC the whose.GEN a   movie had.1SG seen
            'I met the director whose movie I had seen.'

       b.   Sinadisa ton skinotheti   tu opiu   kapja tenia iha   dhi.
            met.1SG the director.ACC the whose.GEN some movie had.1SG seen
            'I met the director whose movie I had seen.'

- **Property 2:** Indefinite DPs project a left periphery.

(72)   a.   An iha   dhi omos   tu Faradhi   mia tenia,   tha   imun harumeni.
            if   had.1SG see through the Faradhi.GEN a   movie.ACC would be.1SG happy
            'If I had seen a movie of Faradhi's, I would be happy.'

       b.   An iha   dhi omos   tu Faradhi   kapja tenia,   tha   imun harumeni.
            if   had.1SG see through the Faradhi.GEN some movie.ACC would be.1SG happy
            'If I had seen some movie of Faradhi's, I would be happy.'

- **Conclusion:** Since indefinites have a left periphery, the fact that they also allow extraction follows straightforwardly.