PP-splits in Greek: Against scattered deletion

1. Introduction. This paper examines previously unexplored splits in Greek involving possessor constructions embedded under Ps. In Greek possessor constructions, a genitive possessor, *pjanu* 'whose,' can be separated from a possessum, *to podhilato* 'the bike' (Horrocks & Stavrou 1987, Alexiadou et al 2007):

(1) Pjanu$_i$ aghorase   to   podhilato   t$_i$?
    whose.GEN bought.3SG   the   bike.ACC   'Whose bike did she buy?'

I present a notable asymmetry split within PPs. While a possessor can never be separated from a possessum embedded under a P, (2, hereafter, possessor movement), some PPs allow what appears to be the movement of a non-constituent in (3). In this pattern (hereafter, PP-split), the possessor and the P co-occur in the left periphery to the exclusion of the possessum, which is left stranded postverbally.

(2) * Pjanu$_i$ harike   ja   tin   epitihia   t$_i$?
    whose.GEN was.happy.3SG   for   the   success.ACC.   'For whose success was she happy?'

(3) [Ja   t$_i$ pjanu]$_j$ harike   tin   epithia$_i$ t$_j$?
    for   whose.GEN was.happy.3SG   the   success.ACC   'For whose success was she happy?'

Similar splits are allowed in different languages, prompting debate on their analysis. Some argue for scattered deletion (Fanselow & Ćavar 2002 i.a.), but I propose remnant movement as a more restrictive and explanatory account of PP-splits. Scattered deletion permits unattested patterns or rules out attested ones, unlike remnant movement, which accurately captures the observed data. This supports (4):

(4) *Scattered deletion: Scattered deletion is impossible in natural language.

2. The data. I present a detailed study of possessor movement and PP-splits with different interpretations (see table below for a subset of the tested PPs).

Possessor movement	Evidential	Temporal	Benefactive	Source	Agent	Causer	Manner	Instrument	Comitative
	✗	✗	✗	✗	✗	✗	✗	✗	✗
PP-splitting	✗	✗	✓	✓	✓	✓	✓	✓	✓

As shown, possessor movement, (2), is blocked across all PPs. Conversely, PP-splitting, (3), is permitted with certain PPs, based on judgments from 10 native speakers. Agent, causer, benefactive, instrument, source, comitative and manner PPs allow PP-splitting, whereas evidential and temporal PPs do not. Consequently, I have detected two distinct groups of PPs, exemplified by pairs in (2)-(3) and (5)-(6). The group of PPs in (5)-(6) distinguishes itself by preventing both possessor movement and PP-splitting, as opposed to the group in (2)-(3), which only prevents the first.

(5)* Pjanu$_j$ efije   simfona me tin   adherfi$_i$ t$_j$?
    whose.GEN left.3SG   according to the   sister.ACC.   'According to whose sister did she leave?'

(6)*[Simfona me t$_i$ pjanu]$_j$ efije   tin   adherfi$_i$ t$_j$?
    according to   whose.GEN left.3SG the   sister.ACC   'According to whose sister did she leave?'

3. PP-splits. I show how PP-splits should be analyzed in Greek, focusing on PP- splitting from instrument PPs, as in (7).

(7) Me   pjanu   eghrapse $^{?*}$[i Eli]   to   stilo   [i   Eli]?
   with whose.GEN wrote.3SG the Eli.NOM the pen.ACC the Eli.NOM 'With whose pen did Eli write?'

To start with, possessors typically follow the noun, but focused possessors and *wh*-items, *pjanu* 'whose,' can precede it, (8). In PP-splits, the possessor, *pjanu,* undergoes a short movement step from its postnominal position to the Spec of a position in the D's left periphery, as shown in (9) for (7). I identify this position as Spec,FocusP (Ntelitheos 2004), even though it could be something else (Szendrői 2010).

(8)Me (pjanu)   to stilo   (pjanu)   eghrapse i   Eli?
    with whose.GEN the pen.ACC   whose.GEN wrote.3SG the Eli.NOM   'With whose pen did Eli write?'

After movement of the possessor to Spec,FocusP, the possessum, *to stilo* 'the pen,' moves through Spec,PP to the middle-field, Spec,YP of (9). Movement through Spec,PP is required because Greek Ps are phases ([Author 2023]). The assumption that middle-field movement is involved finds support in the ordering of the accusative possessum with respect to a postverbal subject and the verb. In Greek, postverbal subjects typically occur in Spec,vP (Alexiadou & Anagnostopoulou 2001). As shown in (7) with an instrument PP, the accusative possessum must surface before a postverbal subject and after the verb, which in Greek occupies T, indicating the presence of the possessum in the middle field. Lastly, YP is independently

motivated, as objects can be moved to it from V's complement position, followed by V-to- T movement, yielding VOS orders (Georgiafentis 2004 i.a.). After movement of the DP to YP, V-to-T movement takes place, then *pjanu* pied-pipes the PP-remnant in (9) to the left   (9)
left periphery giving rise to a PP-split.

4. Deriving PP-splits across PPs. PPs' distinct behavior regarding splitting follows if they are licensed by distinct hierarchically organized heads, as in Alexiadou & Anagnostopoulou (2007). PPs are introduced in the specifiers of these heads (Schweikert 2005, Cinque 2006), e.g. Spec,InstrumentP—the Instrument label is indicative—in (9). Building on insights of Haegeman (2004), I take extractability to be linked to merge height. Thus, evidential and temporal PPs are E-merged higher than the mid-field position, YP, in (9). This blocks PP-splitting, as unlike (9), there is no position, YP, that can host a possessum that evacuates the PP. In contrast, the remaining PPs are merged lower than YP allowing PP-splitts. The hierarchy resulting from PP-splitting is as in (10):
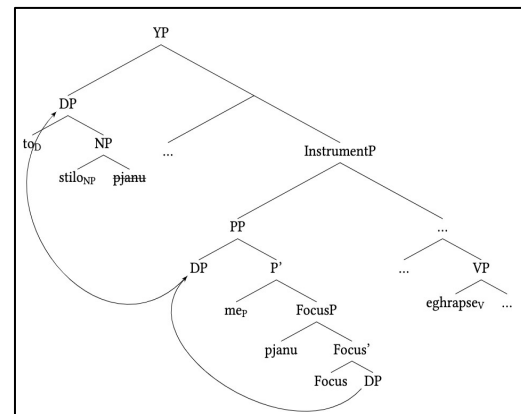
(10) Evidential, Temporal> **YP**> Benefactive, Source, Agent, Causer, Manner, Instrument, Comitative
(10) is supported by its close resemblance to Schweikert's (2005) hierarchy and by contrasts, as in (11)-(12), between evidential and comitative PPs. Both PPs can occur clause initially. Evidential PPs usually prefer this position, while the latter do so when containing a focused XP, e.g. *secretary* in (12). Both PPs contain a proper name. It can be coindexed with the subject of the clause, shown as *pro*, when within an evidential PP, but not when in a comitative PP. This aligns with (10): evidential PPs are base generated in the left periphery, above where *pro* is interpreted, i.e. in Spec,TP. Because of this, the proper name within the evidential PP and *pro* do not c-command each other, thus, the two can be freely coindexed, as shown in (11). In contrast, comitative PPs originate below YP, (10), and thus, lower than Spec,TP. Their presence in the left periphery, as in (12), results from movement from their base position. Hence, a lower PP copy containing the proper name exists under Spec,TP, where *pro* is interpreted. Due to Condition C, the proper name and *pro* cannot be coindexed in (12) since *pro* c-commands the proper name in the lower PP copy.

(11) Kata ti ghramatea tu Jani$_i$,   pro$_i$ eprepe na ehi   katethesi tin dhilosi pio prin.
      per the secretary.ACC the John.GEN   must na have.3SG submitted the forms.ACC earlier
      'According to John's secretary, he must have submitted the form earlier.'

(12) Me ti GHRAMATEA   tu Jani$_i$,   pro$_{j/*i}$ eprepe na ehi   pai s-tin ekdhilosi.
      with the secretary.ACC   the John.GEN   must na have.3SG gone to-the event
      'With John's secretary, he must have gone to the event.'

5. *Scattered deletion. Under a scattered deletion account, the entire PP moves to the left periphery, and then parts of the two resulting copies are deleted, giving rise to PP-splitting. However, this account struggles to explain why scattered deletion would only apply to certain PPs (3 vs 6). This issue becomes even more apparent with complex Ps, such as *simfona me*, which express evidential and manner interpretations. Crucially, *simfona me* does not PP-splits when interpreted as evidential, as was shown in (6), but it can when interpreted as manner, (13).

(13) [Simfona me   t$_i$ pjanu]$_j$ zi   tis simvules$_i$ t$_j$?
        along   with   whose live   the advice.   'Along with whose advice does he live?'
This analysis explains the contrast (6) *vs.* (13): *simfona me* allows PP-splitting when expressing manner (merged below YP in 10) but blocks it when expressing evidentiality (merged above YP). Scattered deletion cannot explain this contrast, as well as restrictions in double object constructions, or possessor extraction out of PPs, (2), both of which will be discussed in the talk. Finally, Talić (2019) analyzes PP-splits in Bosnian as P-cliticization, not scattered deletion, claiming they are blocked with complex Ps. However, this account cannot be extended to Greek, which allows PP-splits with complex Ps, e.g, *simfona me*, (13).

Selected references: Alexiadou, A., & Anagnostopoulou, E. (2007). Agent, causer and instrument PPs in Greek. *MIT working papers in linguistics*, 20-22. **Haegeman, L. 2004.** The syntax of adverbial clauses and its consequences for topicalisation. In *Current Studies in Comparative Romance Linguistics*. **Schweikert, W. (2005).** *The order of prepositional phrases in the order of the clause*. Benjamins.

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