

PP Licensing and Compounding: Evidence for Prepositions as Probes

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Introduction

The puzzle: Certain theta-roles are normally realised as PPs in clauses and nominalisations. However, certain deverbal compounds can feature nominal stems saturating those theta-roles while they cannot be realised as PPs in the corresponding non-compound nominals.

(1) **Aktin-** o- therap- ef- tis
ray LNK treat VBZ er
'X-ray therapist'

(2) Therap- ef- tis (*me aktines)
treat VBZ er with rays
'therapist with X-rays'

- Is the licensing of those theta-roles independent from the licensing of the respective Ps?
- What implications does this observation have for the licensing of non-locative Ps in general?

The Licensing of Instruments and Instrument PPs

Instrument PPs are licensed only when a process reading is available.

(3) Eksetazo ton astheni me aktines
I-examine the patient with rays
'I examine the patient with X-rays'

(4) I eksetasi tu asthenus me aktines (process nominal)
the examination-of-the patient with rays
'the examination of the patient with X-rays'

(5) O asthenis parelave tin eksetasi (*me aktines) (result nominal)
The patient received the examination with rays
'the patient received the examination with X-rays'

So, unsurprisingly, instrument PPs are not licit with agent nominals, which also have a 'diminished verbal character' and resist aspectual modification (Alexiadou 2001) and, in Greek, always lack any event entailments (Michelioudakis & Angelopoulos 2013).

(6) Therap- e- ia me aktines epi tris mines
treat VBZ ment with rays for three months
'treatment of cancer with X-rays for three months'

(7) Therap- ef- tis (*me aktines) (*epi tris mines)
treat VBZ er with rays for three months
'therapist (with X-rays) (for three months)'

- We suggest that incorporation of instrument theta-roles in compounds is licit **if and**, in fact, **only if** instrument PPs are not licensed.

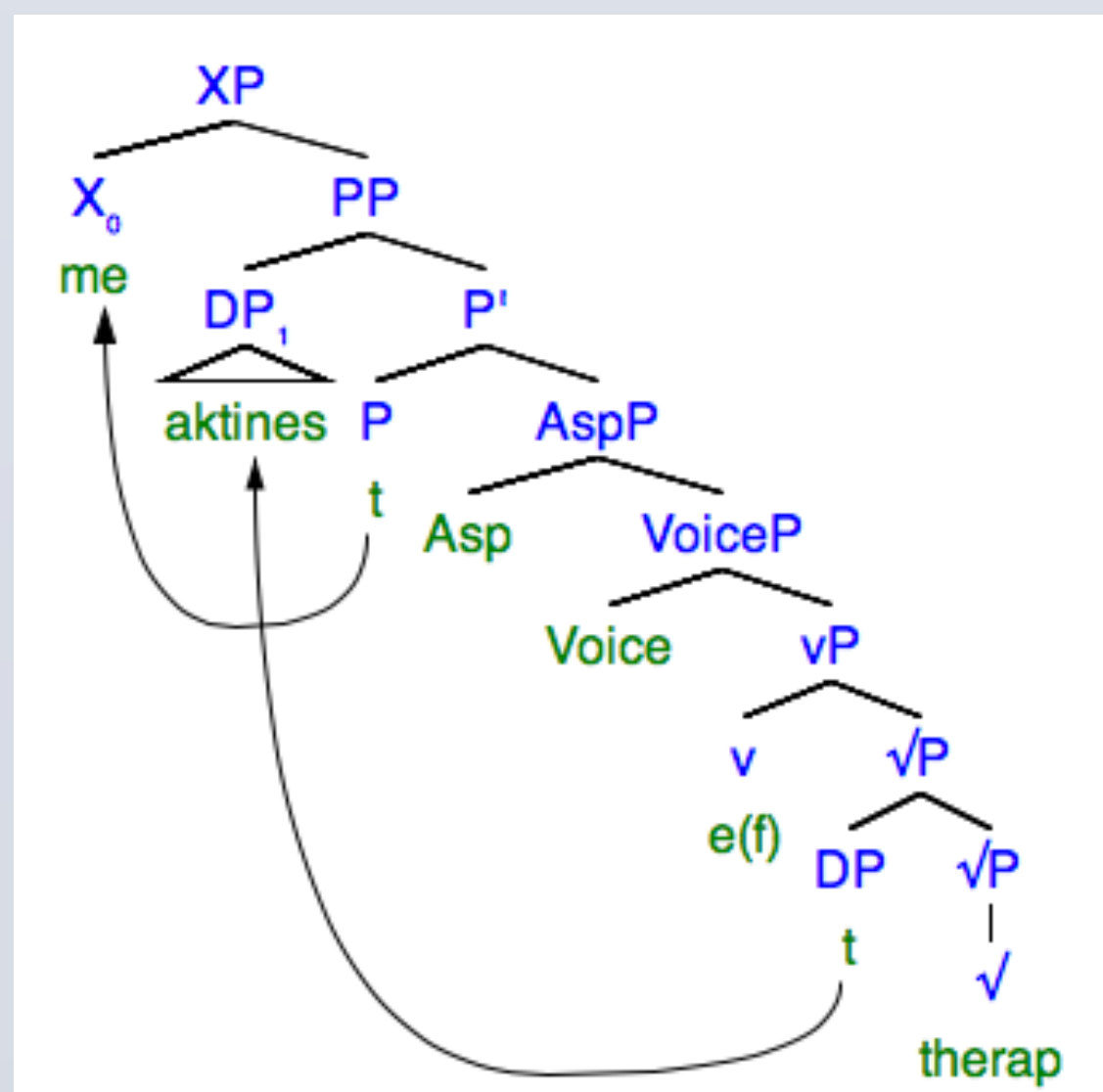
Exceptions such as (8), which is attested alongside (6), are only apparent, as e.g. (8) cannot be an Argument Structure nominal and cannot be interpreted aspectually (cf. Borer 2012 on the absence of event structure in synthetic compounds).

(8) I aktin- o- therap- e- ia (*tu karkinu) (*epi/*mesa se tris mines)
The ray LNK treat VBZ ment of-the cancer for/ in three months
'The X-ray treatment (of cancer) (for/in three months)'

More generally, we propose that:

If and only if merger of P is blocked, then compounding of the surface complement of P with the verbal root of the nominal is possible.

- Following Alexiadou & Schaefer (2008), what distinguishes (6) from (7) is the presence of an Asp_{EPI}ASP_{EPISODIC}P, over VoiceP, in the extended projection of the stem.
- Rather than assuming that PPs satisfying certain thematic relationships are introduced/selected (though not obligatorily) by projections outside VoiceP...
- We propose that it is **non-locative Ps** that **select** the relevant projections, shared in both nominal and verbal constructions, and function as **probes**, in the spirit of Kayne (2005).
- Whatever satisfies the respective theta-role is attracted to Spec-P for Case reasons.

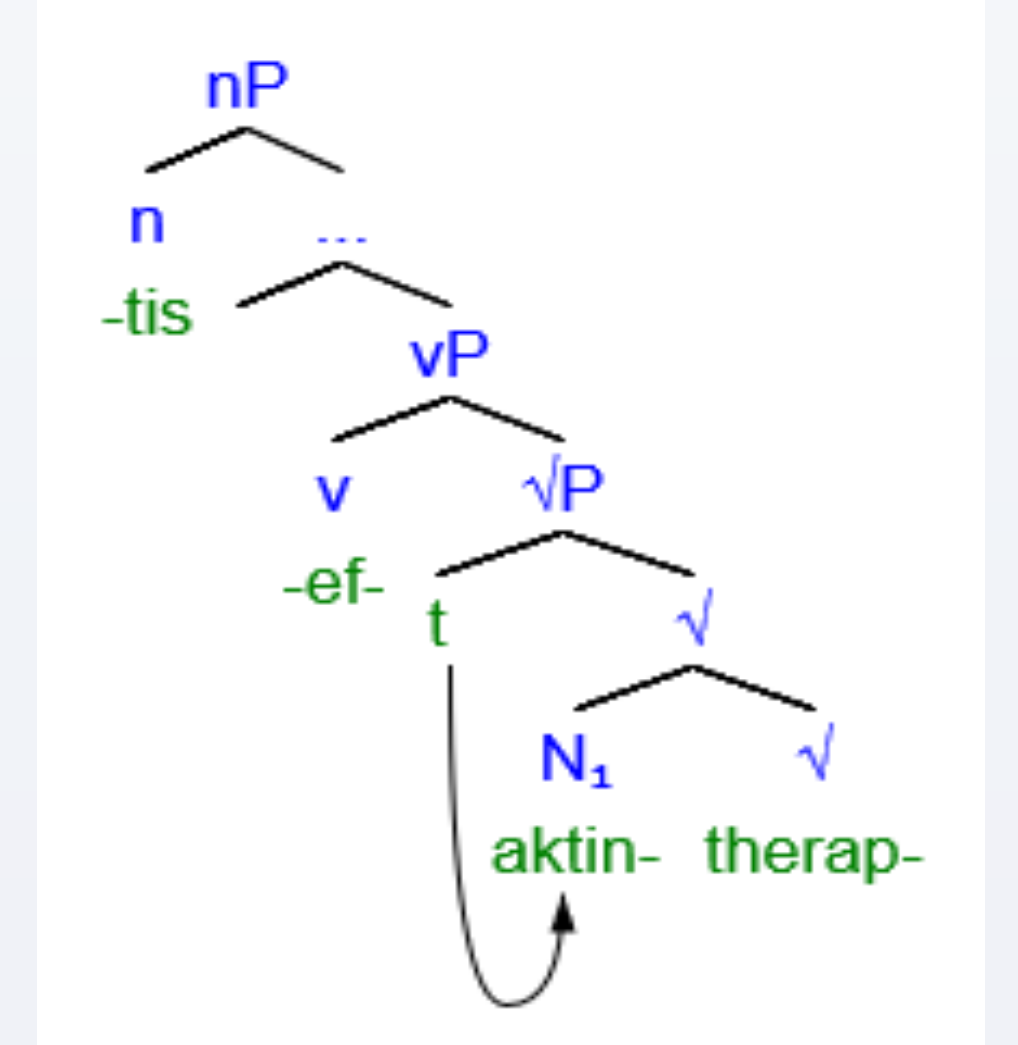


- AspP undergoes remnant movement (along with any internal argument) to Spec-XP, to the left of the preposition and its surface complement.
- XP can be the complement either of T or of a nominalising head, e.g. -ia in (6).

Compounding

This analysis has the advantage of divorcing the licensing of P from the encoding of the instrument role.

- In the absence of the appropriate projection, i.e. AspP, P is blocked.
- Also, in the absence of event entailments, no real individuals need to be involved/referred to, hence no D is required (Longobardi 2008), and consequently no Case.
- Then, the N satisfying the instrument role may undergo head-adjunction/m-merger (Matushansky 2006) to the root, as a **last-resort**/PF-repair mechanism, followed by head-movement up to n^0 à la Harley (2009).



Agent Phrases and Participles

In the case of agent arguments of nominals and participles, it is even clearer that prepositional realization and compounding are mutually blocked

- Event nominals in *-ma* license agent PPs and exclude agent-compounding, while adjectival participles in *-tos* only license agent-compounding, excluding agent PPs.

(9) To stolizma tis eklisias apo ta koritsia me prosoxi
The decorate of-the church by the girls with care
'the decoration of the church by the girls'

(10) *korits- o- stol- iz- ma
girl LNK decorate VBZ n
'girl decoration'

(11) Stol- is- t- os (*apo agelo)
decorate VBZ PTCP M.S.NOM by angel
'decorated by angel'

(12) Agel- o- stol- is- t- os
angel LNK decorate VBZ PTCP M.S.NOM
'angel decorated'

- Nominalisations in *-ma* and *-tos* adjectival participles crucially differ in the licensing of agent-oriented modification, which Alexiadou (2009) associates with Voice.
- Therefore, the P introducing agent-phrases in Greek (*apo* 'by') selects VoicePs or bigger XPs.

- Participles in *-menos*, on the contrary, which do license agent modification, only accept agent PPs and no compounding:

(13) Dos- men- os apo ton theo vs. *the- o- dos- men- os
give PTCP M.S.NOM by the god god LNK give PTCP M.S.NOM
'given by God' 'God-given'

- An apparent counterexample comes from English, where *given by God* and *God-given* are both possible.
- *by* is not like *apo*: *by* is the spellout of Voice rather than a P, triggering a smuggling derivation à la Collins (2005).

(14) [_{Voice} [_{Voice} by] [_{vP} agent [_v v [_{PartP}... --> smuggling of PartP to Spec-Voice

In adjectival participles, a non-referring N in Spec-vP can incorporate into the PartP.

(15) [_{Voice} [_{Voice} ∅] [_{vP} agent [_v v [_{PartP} Part... --> compounding of agent with Part

- On the contrary, Greek lacks participial passives, so *apo* is a P, always made possible by the obligatory presence of VoiceP in *-menos* (see Alexiadou et al. 2014), thus blocking compounding.

Conclusion

- ❖ We established the complementarity of compounding and PP realisation of certain theta-roles.
- ❖ This complementarity is best accounted for if we assume that Ps do not select their surface complement, but instead verbal projections containing it, along the lines of Kayne's (2005) analysis of prepositions as probes.
- ❖ It remains to be seen if this complementarity extends to genitive arguments of nominalisations and the observation about the lack of event structure in synthetic compounds.

Selected References: Alexiadou, A. 2001. *Functional structure in nominals: nominalization and ergativity*. Vol. 42. John Benjamins Publishing. • Kayne, R. S. 2005. "Prepositions as Probes." *In Movement and Silence* (Oxford Studies in Comparative Syntax), chapter 5. Oxford University Press. • Borer, H. 2012. "In the event of a nominal." In Everaert, M., M. Marelj, M. and T. Siloni (eds.) *The Theta System. Argument Structure at the Interface*: 103-149.