Phrasal layering versus complex heads in Greek stative passives*

Lefteris Paparounas

University of Pennsylvania

1. Introduction

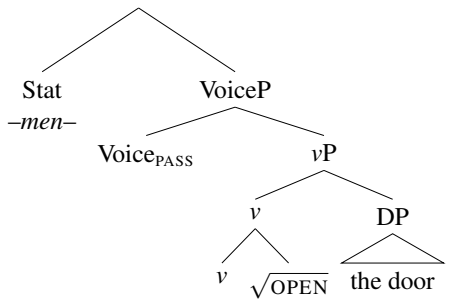
This paper deals with *stative passives*, that is, constructions like English (1) (on its stative reading), or its Greek counterpart (2). Questions on the structure and interpretation of such constructions have formed the playing field for theories of argument licensing and word formation for many decades (see among many others Wasow 1977, Dubinsky and Simango 1996, Levin and Rappaport 1986, Kratzer 2001, Embick 2004).

In much recent work assuming a syntactic approach to word formation, stative passives have been argued to involve a phrasal verbal structure underneath a stativizing projection; on this type of approach, *phrasal layering*, the verbal structure present in stative passives can be as big as (3), where the stativizer embeds a full passive VoiceP (e.g. Anagnostopoulou 2003, Bruening 2014, Alexiadou and Anagnostopoulou 2008, Alexiadou et al. 2015, Anagnostopoulou and Samioti 2014).

(1) The door is open- ed.

(2) I porta ine aniɣ-
the.NOM door.NOM be.3SG $\sqrt{\text{OPEN}}$
men- i.
PTCP F.NOM
'The door is opened.'

(3)



Greek has been the poster child for phrasal layering analyses of stative passives ever since the pioneering work of Anagnostopoulou (2003), owing to examples like (4). Such

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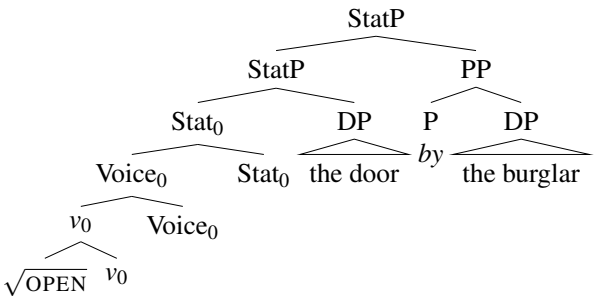
examples ostensibly suggest that Greek is a language where agent-oriented modifiers can freely appear in stative passives; on the assumption that such modifiers diagnose a VoiceP layer (see e.g. Bruening 2013), these modification possibilities seemingly offer crucial evidence in favor of (3), at least for this language.[1]

(4) I porta ine aniɣ- meni viea / me losto / apo
the.NOM door.NOM be.3SG $\sqrt{\text{OPEN}}$ PTCP violently with crowba.ACC from
ton ðiarikti.
the.ACC burglar.ACC
'The door is opened violently/with a crowbar/by the burglar.'

The literature on Greek stative passives has focussed almost exclusively on agent-oriented modifiers. In this paper, I extend the domain of inquiry to other types of modification, identifying a range of novel generalizations that I argue run counter to the predictions of phrasal layering analyses like (3).

In lieu of such an analysis, the Greek facts are amenable to a *complex head* analysis of stative passives as in (5), of the type advocated by Wood (2021) for Icelandic nominalizations, Embick (2021, 2023) for English stative passives, and Benz (this volume) for German nominalizations. I take the central divergence of this type of analysis from phrasal layering to lie in the fact that any arguments are syntactically introduced high, above the stativizing layer; as a result, there is no projection that is unambiguously phrasal (cp. Chomsky 1994) below the stativizer.

(5)



The data and argumentation presented here are developed in more detail in Paparounas (forthcoming).

2. Preliminaries

Greek expresses stative passives using dedicated participial morphology, such as the exponent *–men–* in (6); this morphology always surfaces linearly between the Root and the adjectival agreement exponent. I leave aside here the language's other stativizer, *–t–*; see

[1]Note that the applicability of a layering structure is independent of the question of which exact layers are present in the structure. Thus, for English stative passives, one encounters both VoiceP-less analyses (e.g. Alexiadou et al. 2015, and to some extent Embick 2004) and VoiceP-ful ones (e.g. Bruening 2014).

among many others Alexiadou and Anagnostopoulou (2008) for a comparative description of *–men–* and *–t–*.

(6) To kreas ine psi- **men**- o.
the.N.NOM meat.NOM be.3SG $\sqrt{\text{ROAST}}$ PTCP N.NOM
'The meat is roasted.'

Unlike many Indo-European languages including English (1), Greek employs participles only in stative passives; eventive passives look wholly different, being built with the language's nonactive morphology (7) (see e.g. Alexiadou et al. 2015:ch. 3, Paparounas forthcoming).

(7) a. To kreas psi- θ- ik- e.
the.NOM meat.NOM $\sqrt{\text{ROAST}}$ PFV.NACT PST 3SG
'The meat was roasted.' *'aorist'*

b. To kreas eçi psi- θi.
the.NOM meat.NOM have.3SG $\sqrt{\text{ROAST}}$ PFV.NACT
'The meat has been roasted.' *'perfect'*

3. Stative passive ≠ stativized eventive passive

According to (3), a stative passive is effectively a stativized eventive passive; this analysis thus predicts that the properties of eventive passives should be inherited by the stative, *modulo* independent properties of stativity. In this section, I identify three previously unnoticed corners of the Greek grammar that exemplify the opposite of this prediction: stative passives behave wholly unlike their eventive counterparts, raising questions for the layering approach.

3.1 Reflexivization

Alongside pronominal reflexives (8a), Greek shows a verbal reflexivization strategy combining the prefixal reflexivizer *afto-* with nonactive morphology (8b) (see *i.a.* Spathas et al. 2015, Paparounas forthcoming); the same two strategies are employed to form reciprocals (9).

(8) a. Simfona me ti miθolojia, afti i θeotita ðimiurɣi-
according.to with the mythology this.NOM the.NOM deity.NOM $\sqrt{\text{CREATE}}$
s- e **ton eafto tis** apo to miðen.
PFV.**ACT** 3SG the.ACC self.ACC 3SG.F.GEN from the zero
'According to mythology, this deity created itself out of nothing.'

b. Simfona me ti miθolojia, afti i θeotita **afto-**
according.to with the mythology this.NOM the.NOM deity.NOM REFL
ðimiurɣi- **θ-** ik- e apo to miðen.
$\sqrt{\text{CREATE}}$ PFV.**NACT** PST.NACT 3SG from the zero

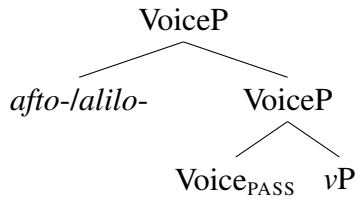
'According to mythology, this deity self-created out of nothing.'

(9) a. I Maria ke o Janis ipostiriz- **un** o
the.NOM Mary.NOM and the.NOM John.NOM support 3PL.**ACT** the.NOM
enas ton alo.
one.NOM the.ACC other.ACC
'Mary and John support each other.' cf. Paparounas & Salzmann (this volume)

b. I Maria ke o Janis **alilo**- ipostiriz- **onde**.
the.NOM Mary.NOM and the.NOM John.NOM RECIP $\sqrt{\text{SUPPORT}}$- 3PL.**NACT**
'Mary and John support each other.'

I take *afto-* reflexives and *alilo-* reciprocals to be formed on the basis of passive Voice, as in (10). This approach is motivated, among other things, by an implicational generalization observed in Alexiadou (2014): the verbs capable of undergoing affixal reflexivization/reciprocalization in Greek are all and only those verbs that can passivize.

(10)



(see Spathas et al. 2015, and cf. Paparounas forthcoming for support and refinements)

Crucially, predicative stative passives in *–men–* never tolerate affixal reflexivization (11) or reciprocalization (12).

(11) a. O Janis afto- katastraf- ik- e me to poli poto.
the.NOM John.NOM REFL $\sqrt{\text{DESTROY}}$ PST.NACT 3SG with the much drink
'John destroyed himself from too much drinking.' *eventive*

b. Toso pu pini, o Yanis ine (*afto-)
that.much COMP drink.2SG the.NOM John.NOM be.3SG REFL
katestra- men- os.
$\sqrt{\text{DESTROY}}$ PTCP NOM
'From drinking so much, John is (self-)destroyed.' *stative*

(12) a. Otan rotiθikan pços itan arxiɣos tis
when ask.NACT.3PL who.NOM be.PST.3SG leader.NOM the.GEN
tromokraticis oryanosis, i ipopti alilo-
terrorist.GEN organization.GEN the.NOM.PL suspect.NOM.PL RECIP
katiɣori- θ- ik- an.
$\sqrt{\text{ACCUSE}}$ PFV.NACT PST 3PL

'When asked who was the leader of the terrorist group, the suspects accused each other.' *eventive*

b. Finally, the expert interrogator managed to turn the suspects' testimonies against each other.

*I ipopti ine pleon alilo- katiɣori- men- i.
the suspect.NOM.PL be.3PL as.of.now RECIP √ACCUSE PTCP NOM.PL

'The suspects are now mutually accused.' *stative*

If the stative passive is built on top of its eventive counterpart, as in (3), it is mysterious why the eventive, which can normally be reflexivized as in (10), cannot be reflexivized in this way only when it is contained in the stative. On the complex head approach (5), the lack of the phrasal structure which *afto-* needs to attach to may plausibly derive the lack of reflexivization with stative passives.

3.2 *Almost*

Like its English translation,[2] the Greek approximative modifier *sçeðon* 'almost' gives rise to an ambiguity when modifying accomplishments (McCawley 1971), as in (13). This ambiguity persists in the eventive passive, as the different continuations of (14) show.

(13) I çonati sçeðon efaje to milo.
the.NOM Snow.White almost eat.PST.3SG the.ACC apple.ACC
'Snow White almost ate the apple.'

✓ 'Snow White almost finished eating the apple.' *scalar*
✓ 'It almost happened that Snow White ate the apple.' *counterfactual*

(14) To milo sçedon içe faɣoθi apo tin çonati...
the.NOM apple.NOM almost have.PST.3SG eat.PFV from the Snow.White
'The apple had almost been eaten by Snow White...'

a. ... otan i vasilisa ti fonakse ke afise
when the.NOM queen.NOM 3SG.F.ACC call.PST.3SG and leave.PST.3SG
to telefteo komati sto trapezi.
the.ACC last.ACC piece.ACC on.the table.ACC
'when the queen called her and she left the last piece on the table.'

b. ... otan o griniaris ti stamatise prin kan
thankfully the.NOM Grouchy.NOM 3SG.F.ACC stop.PST.3SG before even
to dagosi.
3SG.N.ACC bite.PFV.3SG
'when Grouchy stopped her before she even took a bite.'

[2] I have encountered two speakers for whom *sçeðon* cannot be counterfactual – for speakers of this type, the point made by the following examples can be made with the purely counterfactual modifier *paraliɣo*, see (18) below. See also Oikonomou et al. (2022).

Crucially, stative passives never license the *almost* ambiguity, instead only ever yielding the scalar reading, as in (15) (cf. Nissenbaum 2018 for English).

(15) a. To milo ine sçeðon faɣo- men- o.
the.NOM apple.NOM be.3SG almost $\sqrt{\text{EAT}}$ PTCP N
'The apple is almost eaten.' ✗counterfactual ✓scalar

b. To milo itan sçeðon faɣo- men- o.
the.NOM apple.NOM be.PST.3SG almost $\sqrt{\text{EAT}}$ PTCP 3SG
'The apple was almost eaten.' ✗counterfactual ✓scalar

Thus, in counterfactual-favoring contexts like that in (16), only eventives (16a) are appropriate, stative passives (16b) yielding a contradiction:

(16) *[In a Hunger Games-esque competitive deathmatch, a cunning player leaves out a poisoned apple for their hungry competitors.]*

a. To ðilitirias- men- o milo sçeðon içe faɣoθi
the.NOM $\sqrt{\text{POISON}}$ PTCP N.NOM apple.NOM almost have.PST.3SG eat.PFV
apo polus pextes, ala eftixos kanis tus ðen
from many player.PL but thankfully no-one.NOM 3PL.POSS NEG
to efaje telika.
3SG.N.ACC eat.PST.3SG ultimately
'The poisoned apple was almost eaten by many players, but thankfully none of them ate it in the end.'

b. To ðilitirias- men- o milo itan sçeðon faɣo-
the.NOM $\sqrt{\text{POISON}}$ PTCP N.NOM apple.NOM be.PST.3SG almost $\sqrt{\text{EAT}}$
men- o apo polus pextes, #ala eftixos kanis ðen
PTCP N.NOM from many player.PL but thankfully no-one.NOM NEG
to içe fai.
3SG.N.ACC have.PST.3SG eat.PST.3SG
'The poisoned apple was almost in an eaten state by many players, but thankfully no-one had eaten it.'

Assume with Rapp and von Stechow (1999) that the *almost* ambiguity is structural, deriving in this case from whether the modifier attaches above or below the stativizer, with state-level attachment giving the state-modifying scalar reading, and event-level attachment the event-modifying counterfactual reading. The layering analysis (3) mispredicts the existence of a low attachment site for *sçeðon*: on this analysis, the modifier should be able to attach below the stativizer, modifying the event and yielding the counterfactual reading. By contrast, on the complex head analysis (5), the first phrasal projection where the modifier could attach is the stativizing layer, guaranteeing that only the stative reading will be derived.

Additional evidence comes from a distinct modifier, *para-liɣo* (lit. 'but-little'), which only gives the counterfactual reading in eventives:

(17) a. I çonati paraliɣo efaje to milo.
the.NOM Snow.White.NOM nearly eat.PST.3SG the.ACC apple.ACC
'Snow White very nearly ate the apple.' ✓counterfactual ✗scalar
b. To milo paraliɣo faɣoθike apo ti çonati.
the.NOM apple.NOM almost eat.NACT.PST.3SG from the Snow.White
'The apple was very nearly eaten by Snow White.' ✓counterfactual ✗scalar

As expected given the behavior of *sçeðon*, *paraliɣo*-modified statives are simply odd: this is a counterfactual modifier, but statives never give rise to the counterfactual reading.

(18) #To milo ine / itan paraliɣo faɣo- men- o.
the.NOM apple.NOM be.3SG be.PST.3SG nearly √EAT PTCP N
'The apple is very nearly eaten.'

3.3 Idioms

A final diagnostic comes in the form of the language's passivizable idioms. (19) accommodates, alongside a bizzare literal reading, the idiomatic reading given in the translation; this reading persists in the eventive passive (20), but disappears in the stative passive (21), which only admits the literal reading.

(19) I θorivi mu exun kopsi ta ipata.
the.NOM.PL noise.NOM.PL 1SG.GEN have.3PL cut.PFV the.ACC.PL liver.ACC.PL
'The noises have scared me to death.' (lit. 'The noises have cut my livers')

(20) Mu exun kopi ta ipata apo tus θorivus.
1SG.GEN have.3PL cut.PASS.PFV the.NOM.PL liver.NOM.PL from the noises
'I have been scared to death by the noises.'

(21) #Mu ine ko- mena ta ipata (apo tus θorivus).
1SG.GEN be.3PL √CUT PTCP the.NOM.PL livers.NOM.PL from the noises
Intended: 'I am scared to death (by the noises).'

Note that the deviance of (21) is not attributable to stative passives not combining with ethical datives (here, *mu*; see *i.a.* Borer and Grodzinsky 1986), as (22) shows:

(22) Mu ine pez- men- o to iθiko.
1SG.GEN be.3SG √FALL PTCP N.NOM the.NOM morale.NOM
'My morale is low.'

(23) shows another passivizable idiom, which furnishes the same conclusion.

(23) a. Mu epsise to psari sta xili.
1SG.GEN roast.PST.3SG the.ACC fish.ACC on.the.ACC.PL lip.ACC.PL

'S/he tormented me' (lit. 'S/he roasted the fish on my lips.')

b. Mu exi psiθi to psari sta xili.
1SG.GEN have.3SG roast.PASS.PFV the.NOM fish.NOM on.the lips
'I have been tormented.'

c. #Mu ine psi- meno to psari sta xili.
1SG be.3SG $\sqrt{\text{ROAST}}$ PTCP the.NOM fish.NOM on.the lips
Intended: 'I am in a tormented state.'

The reasoning behind this diagnostic is straightforward: if the stative passive contains the eventive, as in (3), it is unexpected that the stative cannot host the idioms that the eventive normally can. If the two are structurally different, however, this asymmetry is expected; (5) accommodates this prediction by separating the nominals from the eventive core of the stative passive.

4. Outlook: Building and interpreting complex heads

The generalizations identified in this paper suggest that certain crucial predictions of (3), the phrasal layering of stative passives, are not borne out for Greek, whereas they are readily accommodated under the complex head analysis (5). Before concluding, I outline some of the many questions that remain, addressed further in Paparounas (forthcoming).

A first question concerns the view of phrase structure that (5) presupposes. This type of structure is traditionally associated with affixation under head movement; here, as in Wood (2021), Marantz (2022), the assumption is that such structures may also be created by External Merge. An important desideratum, from the point of view of the theory of phrase structure, is to specify not only how (5) comes to be possible, but why (3) is *impossible*, at least in this case: what ensures that the grammar only outputs (5) as the structure for Greek stative passives?

A second question concerns the interpretation of objects such as (5); for Greek, a crucial question concerns the interpretation of agent-oriented modifiers (24). Two points of view on these modification possibilities are in principle admissible in light of (5), where such modifiers are introduced high. Firstly, such modifiers could be interpreted as modifiers of the state to which they attach syntactically. This point of view would predict the existence of *state relevance* effects (Rapp 1996, McIntyre 2013); though Greek is standardly said not to show such effects (Alexiadou et al. 2015), the precise empirical situation remains to be clarified, and examples such as the following are suggestive:

(24) I porta ine aniɣ- meni viea / #ɣriɣora / #ponira.
the door is $\sqrt{\text{OPEN}}$ PTCP violently quickly cunningly
'The door is opened violently/quiickly/cunningly.'

Alternatively, the agentive semantics introduced by Voice in (5) could percolate up to the stativized layer and be saturated by a modifier introduced therein, such that the modifier is syntactically state-level but semantically related to a lower part of the structure (*delayed saturation*, cf. e.g. Myler (2016)).

Finally, certain empirical puzzles remain. One domain deserving of close scrutiny involves asymmetries in the syntax and interpretation of stative passives in predicative versus attributive position. In Greek, attributive statives are strikingly more permissive in terms of modification possibilities compared to predicative ones (see also Embick 2023:7ff); (25) illustrates with *almost* modification (cf. (15)), though the predicative/attributive asymmetries are pervasive, arising with numerous other diagnostics as well (Paparounas see forthcoming for more).

(25) To sçeðon faɣo- men- o milo.
the.NOM almost $\sqrt{\text{EAT}}$ PTCP N.NOM apple.NOM
'The almost eaten apple.' ✓scalar **✓counterfactual**

5. Conclusion

I have identified a set of novel generalizations suggesting that the properties of Greek stative passives do not align with the predictions of phrasal layering analyses. If correct, these arguments raise the possibility of the 'smaller' structure in (5), in turn reinforcing the dissociation between the notions 'syntactically constructed' and 'fully phrasal' emerging from recent work on 'deverbal' constructions (Benz this volume; Embick 2023; Wood 2021).

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Lefteris Paparounas
lefteris@sas.upenn.edu