On Experiencers and Goals in Modern Greek

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1 Introduction

In this paper, I discuss the relationship between double object constructions (DOCs) and Belletti & Rizzi's (1988) Class I and III psychological predicates (the *temere-* and *piacere-*type respectively) in Modern Greek. The paper highlights morphosyntactic similarities between Experiencers and Goals and presents evidence that psychological predication is syntactically identical to DOCs; Experiencers (like Goals) are realized as thematically underspecified Specifiers to low applicative heads (APPL) in the sense of Pylkkänen (2008). The syntactic difference between DOCs and psychological predication is that psych roots are uniformly subcategorised by a passive/unaccusative *v* (i.e. a *v* that lacks external arguments). Consequently, all Experiencers, including Class I nominative Experiencers, are derived Subjects. While the causative *preoccupare-* type is not discussed in this paper, there is no a priori reason to assume that this class of psychological predicates requires different treatment in terms of underlying syntactic structure (see also Pesetsky 1995, Pylkkänen 2000).

The core of my proposal is that psychological constructions with dative and nominative Experiencers neatly correspond to the two types of DOCs attested in Modern Greek. The former is an unaccusative variant of the "dative construction" in which Goals are realized as datives/genitives: *édosa tis Marías éna vivlío* 'I gave Mary.DAT a book.ACC'. The latter is an unaccusative variant of the "double accusative construction" in which Goals are realized as accusatives: *dídaksa ti María grammatikí* 'I taught Mary.ACC grammar.ACC'.

The syntactic approach advocated for psychological predication in this paper coincides with that of *possession* in the broad sense (see also Åfarli 2002). Stimuli of experience, like "thoughts" in general, are relational and, as such, correlate metaphysically with body parts: they are not conceptualised independently of Experiencers (see also Chappel & McGregor 1996, Manney 2000). In syntactic terms, the notion of inalienable possession translates into two nominals sharing the same (Small Clause) phrase structure (Vergnaud & Zubizarreta 1992, Alexiadou 2003, Kupula 2008). In this view, argument realization in psychological predication is by no means "exceptional" or in any way problematic either for linking, Baker's UTAH or prominence relations in general (Grimshaw 1990, Pesetsky 1995). Opportunities for promotion to the Subject position are purely syntactic and depend on the head movement properties of the Small Clause head (here: an applicative morpheme; see below). In this analysis, therefore, head movement is syntactically significant and it takes place *prior* to Spell-Out as a narrow-syntactic operation (cf. Chomsky 2000, 2001 and the ongoing debate regarding the status of head movement, Matushansky 2006, Roberts 2010 among many others).

## 2 A universal base for psychological predication

Belletti & Rizzi's (1988) posit three classes of psychological predicates (I-III), based on various tests in Italian, many of which are language specific and/or not specific to psychological predicates (like the famous backward binding effects). Only one these classes, the "Class III" exemplified in (1c,d), licenses both pre- and postverbal Stimuli and Experiencers.

(1) a. *Gianni teme questo.*   (Class I)
    Gianni fears this

   b. *Questo preoccupa Gianni.*   (Class II)
    this preoccupies Gianni

   c. *A Gianni piace questo.*
    to Gianni pleases this

   d. *Quest piace a Gianni.*   (Class III)
    this pleases to Gianni

In terms of syntactic structure, Belletti & Rizzi (1988) argue that while Experiencers are base-generated higher than Stimuli, the deep structure associated with Class I differs from Class II/III in that nominative Experiencers are deep Subjects. My proposal departs from this way of reasoning in two ways. On closer examination, multiple indications emerge supporting the view that also nominative Experiencers could be derived Subjects in Modern Greek. The unaccusative hypothesis traditionally associated with Class II/III can therefore be generalized. Secondly, I assume that "psych effects" are not in any way "exceptional" in the sense of requiring special syntactic treatment (cf. Arad 1998 and others). Under my analysis, psych constructions are nothing more than DOCs lacking external arguments.

The structure in (2) expresses my view regarding the universal base of psychological predication. Experiencers, like Goals in DOCs, are base-generated as Specifiers to a low applicative head (APPL). Stimuli are projected as Complements to APPL:

(2) *A unified syntax for psych constructions*

vP/VP   (v lacks external argument)

APPLP

Experiencer   APPL′

APPL   Stimulus/Theme
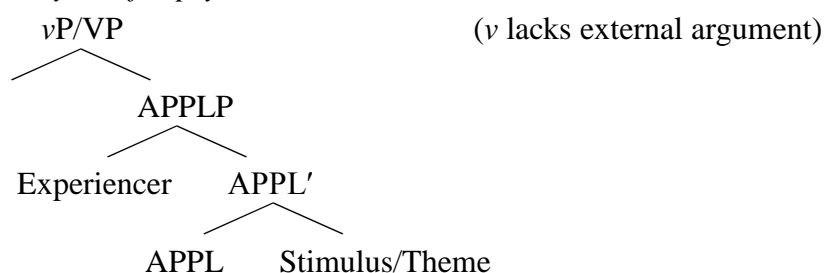
The placement of Experiencers and Stimuli inside the same phrase (APPLP) captures the semantic intuition that these arguments are inalienably connected (see also Åfarli 2002, Pylkkänen 2008, Kupula 2008). The structure in (2) also captures the insight presented earlier in Belletti & Rizzi (1988) and replicated for Modern Greek in Anagnostopoulou (1999), that Experiencer Objects are not *bona fide* DOs, but pattern behaviorally with IOs. This is

expected because Experiencers, as Spec-APPL, *are* IOs syntactically (cf. Pesetsky 1995, McGinnis 2000, a.o.).

Several languages provide morphological support for the applicative analysis outlined above. In Georgian, for instance, psychological verbs are affixed with similar morphology as other types of applicative constructions (see also Harris 1981, Marantz 1989, 1993, McGinnis 2000). The examples in (3) are due to Martha McGinnis (pc.):[1]

   (3) a. *da-**u**-malav-s.*
          preV-**APPL**-hide-3
          's/he is hiding it from him/her.'
      (applicative marking, applied Object)
      b. *v-**u**-q'var-var.*
          1.NOM-**APPL**-love-1
          's/he loves me/they love me.'
      (applicative marking, Experiencer Subject)

Gerdts & Kiyosawa (2008) furthermore report the use of applicative morphology with psychological predicates also in Salish languages (referred to as "psych applicatives"). Psych applicatives are also attested with verbs related to perception and cognition (Kiyosawa 2006:67). Peterson's (2007) "relational applicatives" have analogous uses.

3 Psychological predication and double objects

The discussion in the following sections highlights the morphosyntactic connection between Class I and III psych constructions and the two types of DOCs attested in Modern Greek. The discussion has noteworthy repercussions for the syntactic status of nominative Experiencers, hitherto treated as deep Subjects of transitive predicates.

3.1 Class III and the dative construction

Dative Goals and Class III Experiencers are of course Case-theoretically similar in being carriers of semi-inherent dative features (see also Anagnostopoulou 1999, 2003). In fact, both of these arguments also enter into "dative alternation":

   (4) a. *To krasi* [#]*(tu)   arési tu Pétru.*
          the wine   CL.DAT please the Peter.DAT
      b. *To krasí arési   ston   Pétro.*
          the wine pleases to-the Petros

Assuming that morphological dative Case features are due to agreement with APPL, possibly under local c-command (see 4.1), both arguments are merged to Spec-APPL (see also McGinnis 1998, Anagnostopoulou 2001, Cuervo 2003). The configurational similarity is consistent with the

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[1] Concerning (3b), it should be noted that Experiencer Subjects surface as datives in Georgian (Harris 1981). The examples in (21) only illustrate a complex verb without an overt DP-argument functioning as the Experiencer.

morphological facts discussed in (3) and, in what follows, I argue that the similarities extend to similar quirky Subject properties (*contra* Anagnostopoulou 1999).

Anagnostopoulou (1999) claims that only dative Experiencers qualify as A-binders. The validity of this argument must be questioned because it turns out that the "ungrammaticality" of constructions like (5b) is not due to syntactic considerations, but merely pragmatics:

(5) a. *Tis Marías$_i$ tis   arési   o   eaftós tis$_i$.*
       the Mary.DAT CL.DAT please the herself her
   b. *Tis Marías$_i$ tis   mílise o   eaftós tis$_i$.*
       the Mary.DAT CL.DAT spoke the herself her

Fronted dative Goals also pattern with dative Experiencers in allowing gapping under identity with a nominative Subject (*contra* Anagnostopoulou 1999):

(6) a. *Tis   dothike   éna metállio allá*[-] *den ikanopiíthike.*
       CL.DAT was-given a   medal   but   NEG became-satisfied
       'She was given a medal, but that didn't satisfy her.'
   b. *Tis   arési i   musikí allá*[-] *sihénete to   podósfero.*
       CL.DAT please the music but   hates   the football
       'she likes music, but hates football.'

The examples in (7) furthermore illustrate that dative Goals and dative Experiencers are equally good controllers of PRO (only attested with some participles in Modern Greek due to lack of infinitives). Anagnostopoulou (1999) claims that PRO-control is an exclusive property of Experiencers, as in (7b):

(7) a. *[akúgontas PRO$_i$ óla aftá mu$_i$ dimiurjíthikan erotimatiká*
        hearing   PRO all this me.DAT was-created   questions
       politikís físeos.
        political   character.GEN
       'having heard all this, I came to think of questions of political character.'
   b. *[akúgontas PRO$_i$ tin istoría], tis Marías$_i$ árhise na   min*
        hearing   PRO the story   the Mary.DAT began SUBJ no
       tis   arési o   Pétros.
        CL.DAT   please the Peter.NOM
       'having heard the story, Peter started not to appeal to Mary.'

In sum, Greek dative Goals and Experiencers behave on par regarding quirky Subject properties although neither argument admittedly has as many quirky Subject properties as its Icelandic counterpart (Zaenen *et al*. 1985, Anagnostopoulou 2003).

The examples in (8) illustrate that Class III psych constructions pattern with the dative construction also in terms of ill-formed nominalizations. The ungrammaticality of these constructions, as in (8b,c), has been attributed to zero-derivation and a subsequent violation to Myers's Generalization which bars the addition of derivational morphemes to zero-derived words (Pesetsky

1995, Anagnostopoulou 2001, Hale & Keyser 2002).[2] I return to discuss the syntactic details in the following section.

(8) a. *lukeminen   viehättää   Annaa.*
        reading.NOM   appeals   Anna.PART
        'reading appeals to Anna.'
   b.* *Annan   viehätys*
        Anna.GEN appeal
        'the appeal of Anna'   (Anna = Experiencer)
   c.* *to hárisma   tis   Marias*
        the donating   the   Mary.GEN
        'the donation of Mary'   (see also Anagnostopoulou 2001)

Stimuli, on the other hand, survive nominalization and pattern with Themes in the dative construction (Anagnostopoulou 2001, Kupula 2008):

(9) a. *lukemisen   viehätys*
        reading.GEN   appeal
        'the appeal of reading'
   b. *to hárisma   enós   vivliu*
        the donating a.GEN   book.GEN
        'the donation of a book'   (Anagnostopoulou 2001)

Similar split in terms of grammaticality is attested with adjectival passives with Goal externalisation (see also Pesetsky 1995:50–52, Anagnostopoulou 2001). Consider the following from Dutch (Bennis 2004):

(10)   a. *Dat gedrag   bevalt   de   directeur.*
            that behavior   pleases   the   director
       b. *het   bevallen gedrag / éna harisméno vivlio*
            the   pleased behavior / a   donated   book
       c.* *de   bevallen directeur / *éna harisméno pedi*
            the   pleased director   / a   donated   child

As I mentioned in connection with the examples in (1), Class III psych verbs license both pre- and postverbal Experiencers and Stimuli (see also Belletti & Rizzi 1988), a unique property in the domain of psychological predicates which also applies to these verbs in Greek:

(11)   a. *to krasí$_i$ $^{\#}$(tis)   arési tis Marías   t$_i$.*
            the wine   CL.DAT   pleases the Mary.DAT
       b. *tis Marías$_i$ $^{\#}$(tis)   arési   t$_i$ to   krasí.*
            the Mary.DAT   CL.DAT pleases   the   wine

Assuming the unaccusative status of these predicates (Pesetsky 1995, Anagnostopoulou 2003, a.o.), the placement of the arguments in (11) can be viewed as an instance of symmetric A-movement (cf. Woolford 1993, see also Anagnostopoulou 2003:32–34 for arguments that unaccusatives can be

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[2] The examples in (8–9) come from Finnish, because the Greek verb *areso* lacks nominal forms.

symmetric in Greek and that this property might be morphologically conditioned). A-movement is symmetric also in the dative construction (Kupula 2008, *to appear* where I treat preverbal dative Goals as EPP-driven arguments; it is well-known that datives do not enter into Case checking in Modern Greek):

(12) a. *to vivlío$_i$ $^{\#}$(tis) dóthike tis Marias t$_i$.*
         the book CL.DAT was-given the Mary.DAT
                                    (Anagnostopoulou 2003)
    b. *tis Marías$_i$ $^{\#}$(tis) dothike t$_i$ to vivlío.*
         the Mary.DAT CL.DAT was-given the book
                                  (Kupula 2008)

Observe the semi-obligatory (and discourse-insensitive) presence of a dative clitic *tis* in (11–12). I return to these clitic doubling phenomena in 4.1, where I argue that the dative cliticization observed above constitutes an overt reflex of head movement and the underlying applicative structure and that it furthermore explains all of the morphosyntactic properties of Class III psychological constructions discussed above.

3.2 Class I and the double accusative construction

As opposed to dative Experiencers, nominative Experiencers (Class I) are associated with an asymmetric realization vis-à-vis the verb (see also Belletti & Rizzi 1988 for Italian). Stimuli cannot be promoted to Subject position and these constructions are not associated with clitic doubling of the Experiencer either:

(13) a. *i María fováte to skotádi.*
         the Mary.NOM fears the darkness.ACC
    b. **to skotádi fováte ti María.*
         the darkness.NOM fears the Mary.ACC
                       (*María* intended as the Experiencer)

In this sense, Class I psychological verbs pattern with double accusative verbs: in double accusative constructions only Goals undergo A-movement (and alternate with nominatives in passives) without concomitant clitic doubling of the Goal itself:

(14) a. *i María didáhtike grammatikí.*
         the Mary.NOM taught.PASS grammar
    b. **grammatikí didáhtike ti María*
         grammar.NOM taught.PASS the Mary.ACC

The examples in (15) furthermore make clear that Class I psych verbs pattern with double accusative verbs in allowing nominalizations based on the Experiencer and the Theme/Stimulus. Recall from (8–10) that nominalizations of this sort are illicit with Class III verbs:

(15) a. *o fóvos tu Jánni*
         the fear the John.GEN
    b. *i didaskalía ton fititón*

the teaching the students.GEN (Anagnostopoulou 2001)
c. *o fóvos tu thanátu /theu*
the fear the death.GEN /God.GEN
d. *i didaskalía tu ilikú*
the teaching the material.GEN (Anagnostopoulou 2001)

An interesting morphosyntactic connection between Class I psych verbs and the double accusative construction also exists in Russian. In this language, counterparts to Greek "double accusative" verbs (like the typical teaching verbs) subcategorize for dative Themes (see Dziwirek 2002 for extensive discussion):

(16) *Petja učil Katju matematike.*
Petja taught Katja.ACC math.DAT
'Petja taught Katja math.'

Subcategorization frames of this sort are atypical (even in Russian) and it is therefore striking to find it also with many Class I psych verbs, as illustrated in (17). The middle/mediopassive morphology on the verb provides additional support for the unaccusative/"passive" status of these predicates (see also the Greek facts in 4.2):

(17) *Ivan udivljaetsja ee povedeniju.*
Ivan.NOM surprise.PASS his behavior.DAT
'Ivan is surprised at his behavior.'

Having presented the descriptive data, I now proceed to the details of a unified syntactic approach to Class I and III psych constructions.

4 The role of dative cliticization
4.1 Dative cliticization in Class III psych constructions

As I already pointed out in 3.1, Class III psych constructions (and dative DOCs alike) are associated with discourse-insensitive (and for many speakers preferred) clitic doubling of the dative Experiencer (see also Anagnostopoulou 1999, Kupula *to appear*). The fact that the dative clitic is not only associated with Theme-passivization (Anagnostopoulou 2003), but recurs in the preposing of dative Goals (i.e. local movement) gives reason to believe that the presence of the clitic is insensitive for locality and MLC (see Kupula 2008 and *to appear* for detailed discussion and an alternative explanation).

I would like to link the presence of the dative clitic with the observed A-movement symmetries. Following den Dikken (2006), I assume that low applicative phrases are Small Clauses and phases (cf. McGinnis 2001). Furthermore, dative clitics may constitute Spell-Out forms of applicative heads[3] (Demonte 1995, Cuervo 2003, Diaconescu & Rivero 2007, Kupula 2008). Therefore, dative cliticization in (11–12) can be treated as overt displacement of the phase head (=APPL), a process that according to recent

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[3] In the absence of external arguments, APPL is spelled out as *tis* in the post-movement configuration (see Kupula 2010 and *to appear*, and Pearson 2005 for an explanation for the Spell-Out of APPL in this environment, in terms of the "doubly filled comp filter").

findings on phases results in *phase extension* (den Dikken 2006, Gallego & Uriagereka 2007) along the following lines:

(18) *Phase extension* (Den Dikken 2006)
Syntactic movement of the head H of a phase α up to the head X of the node β dominating a extends the phase up from α to β; α loses its phasehood in the process, and any constituent located on the edge of α ends up in the domain of the derived phase β as a result of phase extension.

Phase extension extends the phase headed by APPL, relaxes the movement restrictions associated with the phase domain due to PIC and mobilizes the Theme. Assuming that phases are evaluated at the next phase level (Chomsky 2001, 2004), the extended phase (*v*P) is evaluated at CP, thus retaining its domain (APPLP) transparent for T. Consequently, Experiencers and Themes are both eligible for A-movement (√V-projection omitted for clarity):

(19)
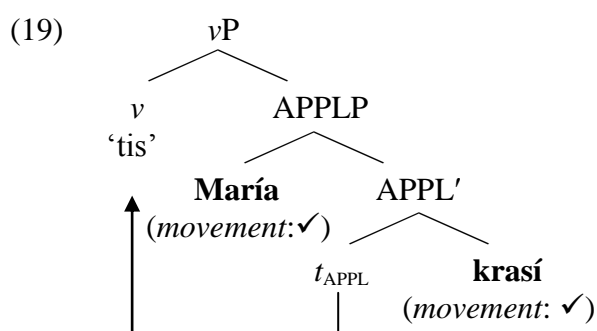
Following Burzio (1986), Chomsky (2000) and Kupula (2008), I also assume that heads can check Case under local c-command and that APPL-to-V/*v* movement triggers dativization of the Small Clause Subject (the Goal) precisely because APPL moves to a position where it locally c-commands the Goal. APPL must therefore c-command its extraction site in the post-movement configuration, so either substitutive head movement, "m-merger" in the sense of Matushansky (2006) or some other mechanism must be assumed. The Russian data to be discussed in the following section provides good evidence that APPL discharges its morphological dative feature specification under local c-command. The analysis illustrated in (19) also gives an attractive explanation for the typologically widespread fact that Class III predicates are "symmetric" in the sense of licensing both preverbal Experiencers and Stimuli. It also evidently highlights the relevance of head movement for syntactic operations (see also Matushansky 2006, Roberts 2010 and related work).

4.2 Lack of dative cliticization in Class I psych constructions

Assuming that the dative clitic represents APPL, the absence of clitic doubling in (13–14) signals that Class I psychological predicates do not license overt head movement of APPL. Assuming furthermore that head movement of APPL triggers phase extension, as in (19), we expect phase extension to be suppressed as well (just like in double accusative constructions; Kupula 2008). These facts predict that: (i) the phase headed by APPL is evaluated at *v*P, and APPL-domain (the Theme/Stimulus) is frozen in place due to PIC; (ii) √V

avoids zero-derivation and therefore violations to Myers's Generalization are circumvented. As illustrated earlier in (14–15), both predictions are borne out (due to lack of phase extension):

(20)

              *v*P
              ／＼
            APPLP
         ／＼
     María   APPL′
  (*movement*:✓)   ／＼
        APPL   **skotádi**
      (in situ) (*movement*:*)
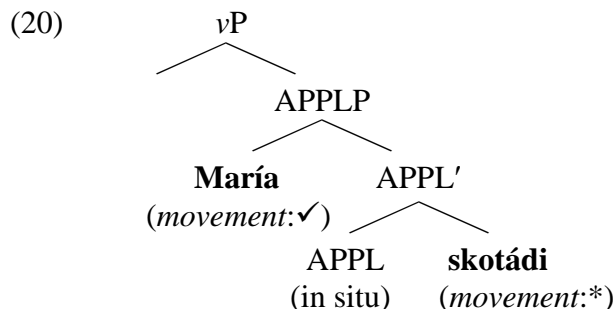
Lack of phase extension and the idea that APPL must discharge its morphological dative feature specification under local c-command is nicely reflected in the Russian examples in (16–17). If APPL resides *in situ*, as in (20), it locally c-commands only its Complement (the Theme/Stimulus). Accordingly, the Theme surfaces as dative in Russian and because Class I psych constructions are unaccusative counterparts to double accusative constructions, also Stimuli expectedly surface as datives with many Class I psych verbs in this language.[4]

If Experiencers are uniformly base-generated as Spec-APPL, they are always derived Subjects. This applies also to Class I nominative Experiencers, contrary to Belletti & Rizzi's (1988) original proposal for Italian. Interestingly, Greek provides some support for the derived status of nominative Experiencers. To begin with, there is independent evidence that constructions with derived Subjects do not undergo passivization (Perlmutter & Postal 1984, Pesetsky 1995, Pylkkänen 2008). Kordoni (2001) shows that Greek Class I psych constructions, too, consistently reject passives. The impossibility is illustrated in (21) with the verb 'to love' (see Kordoni 2001 for more examples with other verbs).

(21)   a. **o Jánnis agapiéte   apo tus gonís   tu.*
            the John   love.PASS by the parents his
           'John is loved by his parents.'

Similar restrictions apply to perception verbs, (22a,b), many of which—like 'to see' and 'to know'—lack passive voice altogether (perhaps symptomatically):

(22)   a. **i María idóthike*[†] *(apo ton Pétro).*
            the Mary see.PASS   by the Peter
            'Mary was seen by Peter.'
    b. **éna   palió tragúdi akústike (apó ton Pétro).*
         an   old   song   hear.PASS by the Peter

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[4] Greek and Russian must be assumed to differ regarding the possible recipient of the dative Case features. In Greek, Themes never surface as datives. This must be a language-specific idiosyncrasy: in some languages (like Greek), dative is only compatible with animate arguments.

'an old song was heard by Peter.'

Furthermore, it is well-known that many psychological predicates are morphologically middles in Modern Greek (Manney 2000), a phenomenon that is far from language-specific (Croft 1991).[5] The middle voice, on the other hand, is syncretic with passives in Modern Greek. Adopting a transformational analysis for middles (as in Keyser & Roeper 1984; Stroik 1992 among others) allows the treatment of middle Subjects as derived Subjects. Such approach is consistent with the semantic properties of Experiencers (which are uniformly non-agentive) as well as the fact that these predicates systematically fail passivization.

5 Conclusions

This paper has dealt with Belletti & Rizzi's (1988) Class I (nominative Experiencers) and Class III (dative Experiencers) psych constructions in Modern Greek. I have shown that an intimate connection exists between these constructions and the two types of DOCs attested in this language (the double accusative construction and the dative construction respectively). The finding is significant because it highlights the thematically underspecified nature of Spec-APPL (cf. Arad 1998) and, consequently, desirably underscores the alleged morphosyntactic differences between Goals and Experiencers (see Anagnostopoulou 1999 for remarks of the latter sort for Greek) in favor of a more unified approach. The unaccusative hypothesis was shown to be extendable to nominative Experiencers too. While Experiencers might be better binders and controllers in some languages (see e.g. Legendre 1989 for French), analogous data cannot be found in Modern Greek. Even in languages like French, the relevant data is drawn from contexts where a clear-cut *de facto* semantic distinction is possible between these arguments. Notably, however, Goals and Experiencers overlap significantly in their interpretation in numerous contexts. In other words: Goals *are* fairly often Experiencers.

Class III psych constructions were argued to differ minimally from Class I regarding the head movement properties of APPL. APPL undergoes head movement with Class III psych roots and resides *in situ* with Class I. Head movement of APPL produces a zero-derived root and simultaneously triggers phase extension; in the absence of head movement of APPL, both phenomena are expectedly suppressed. This morphosyntactic difference, triggered by head movement in narrow syntax prior to Spell-Out, accounts for A-movement symmetries, dative cliticization and ill-formed nominalizations/adjectival passives in Class III and A-movement asymmetries, lack of clitic doubling and well-formed nominalizations in Class I.

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[5] As it turns out, middle/passive morphology is attested also with the Greel verb *erhome* 'come', interpretable also as *arrive*, one of Burzio's (1986) typical verbs associated with I-Subjects. The verb 'come' is also treated as an unaccusative in Anagnostopoulou (2003).

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