Cross-linguistic and cross-categorial variation of datives*

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This paper investigates goal and beneficiary arguments introduced by the preposition se in Greek. I argue that dative arguments introduced by se occur in double object Beneficiary and goal constructions and in prepositional goal ditransitives, unlike to in English which is limited to prepositional goal constructions. I account for this difference between Greek and English in terms of differences between se and to with respect to the feature DIRECTION/PATH and the related function of resultativity. I furthermore compare Greek se-datives to arguments introduced by comparable prepositions in Japanese, French and Spanish. I demonstrate that the meaning, distribution and syntactic properties of a-datives in French are very similar to those displayed by se-datives, except that the former behave like DPs and the latter like PPs under co-ordination. This leads me to conclude that the category of indirect objects is orthogonal to their distribution in ditransitives. Indirect object DPs may occur in so called ‘prepositional ditransitives’ and, conversely, indirect object PPs are allowed to surface in double object constructions. The crucial property of the double object construction is the fact that the indirect object is introduced by a light applicative head and the direct object is part of the domain headed by the verbal root (Marantz 1993). This extra layer of functional structure is missing in so called ‘prepositional ditransitives’ where indirect and direct objects are both introduced at the root level.

1. Introduction

In many languages, oblique arguments with an indirect object role (goal, beneficiary, possessor) surface either as DPs or as PPs, an alternation known in the literature as the ‘dative alternation’. According to a widely attested crosslinguistic pattern, there is a systematic correlation between the categorial status of dative arguments and their hierarchical position. In the English double object construction, exemplified in (1), DP goals and beneficiaries precede and asymmetrically c-command themes. On the other hand, in prepositional ditransitives exemplified in (2) PP goals and beneficiaries follow and are asymmetrically c-commanded by themes (see Barss & Lasnik 1986; Larson 1988, among many others):
(1) a. John sent Mary a book. 
   b. John baked Mary a cake.

(2) a. John sent a book to Mary. 
   b. John baked a cake for Mary.

Even though the proper structural analysis of (1) and (2) as well as their (transformational or non-transformational) relation have been a matter of considerable debate in the literature, there is, nevertheless, a consensus that DP-datives are hierarchically high (i.e. higher than themes) and PP-datives low (i.e. lower than themes). In this paper, I present evidence against this correlation between category (DP vs. PP) and hierarchical position (high vs. low) of dative arguments.

More specifically, I investigate the syntax of prepositional goals and beneficiaries in Greek, focusing on the properties of phrases introduced by the preposition se, a locative preposition corresponding to English to.1 Interestingly, goals and beneficiaries can both be introduced by se in Greek, unlike English where to is limited to goals. Initially I demonstrate that se-PPs do not have a uniform behavior in goal and beneficiary constructions. Goal constructions with se-PPs qualify as prepositional ditransitives, i.e. Greek se-goals behave syntactically similarly to English to-goals. On the other hand, beneficiary constructions with se-PPs share relevant properties with double object constructions. I argue that goals introduced by se are VP-internal, selected by the lexical verb V, while beneficiaries introduced by se are VP-external, merged as specifiers of the light applicative v which combines with a VP to yield the double object construction (Marantz 1993; Collins 1997; McGinnis 1998; Anagnostopoulou 1999a, b, 2003). I furthermore present evidence showing that goal se-PPs can also occur in the double object frame, despite appearances to the contrary. I discuss certain interpretational differences between Greek se-PPs and English to-PPs which are, arguably, responsible for the fact that the former have a wider distribution than the latter. Finally, I connect the Greek facts to parallel patterns in other languages. On the basis of a comparative examination of Greek, Japanese, French and Spanish, I argue that there is no necessary link between the categorial status of dative arguments and the position in which they are merged. Datives can be either DPs or PPs, and can be generated either high or low, regardless of categorial status. Different combinations of these options give rise to a typology of datives which is much richer than usually recognized.

The paper is organized as follows. In Section 2, I discuss goal-ditransitives. I present evidence that constructions with se-goals qualify as prepositional ditransitives, while constructions in which the goal surfaces as a DP with genitive case are double object constructions (see also Anagnostopoulou 2003). In Section 3, I turn to beneficiaries which are either introduced by the preposition jia 'for', or introduced by the preposition se ‘to’, or they surface as genitive DPs. I argue that jia-PPs correspond to for – beneficiaries in English, while constructions with se-beneficiaries and genitive DP-beneficiaries qualify as double object constructions. In Section 4, I argue that goals introduced by se are ambiguous: they form prepositional ditransitives as well as double object constructions. In Section 5, I discuss a number of disparities in the interpreta-
tion of se-PPs and to-PPs which explain their different distribution in ditransitives. Finally, in Section 6, I examine Japanese, French and Spanish which have dative arguments that are similar to Greek se-datives, focusing on the question of the categorial status of high and low datives.

2. Goal ditransitives

2.1 Forms of goals

Greek possesses a variety of ditransitive goal constructions, in which indirect object goals are realized as PPs, as DPs with morphological genitive case or as DPs with morphological accusative case (see Tzartzanos 1945/1989; Mackridge 1985/1987; Philippaki-Warburton 1977; Holton, Mackridge, & Philippaki-Warburton 1997 among others). The first construction consists of an accusative DP denoting a theme and a goal PP introduced by the preposition s(e)’to’. The DP is assigned morphological accusative case by the preposition, as shown in (3a). Similarly to English to, Greek s(e) is also used as a locative preposition, as in (3b):

(3) \[\text{ACC Theme} \rightarrow \text{PP Goal}\]

\(\text{a. O } \text{Jianis estile to } \gamma rama sti Maria,}\)
\(\text{the } \text{Jianis.NOM sent.3SG the letter.ACC to-the Maria.ACC}\)
\(\text{‘John sent the letter to Mary.’}\)

\(\text{b. O } \text{Jianis pije stin } \text{Olandía.}\)
\(\text{the } \text{Jianis.NOM went.3SG to-the Holland.ACC}\)
\(\text{‘John went to Holland.’}\)

The second construction combines two non-prepositional DPs, a goal and a theme. The goal bears morphological genitive case, while the theme surfaces with morphological accusative:

(4) \[\text{GEN Goal} \rightarrow \text{ACC Theme}\]

\(\text{O } \text{Jianis estile tis Marias to } \gamma rama.}\)
\(\text{the } \text{Jianis.NOM sent.3SG the Maria.gen the letter.ACC}\)
\(\text{‘John sent Mary the letter.’}\)

Greek has lost the morphological distinction between genitive and dative case and has generalized the use of genitive.

Finally, with a limited set of verbs, the goal can either be introduced by a PP headed by s(e), as in (5a), it can surface as a genitive DP (5b), or it can be projected into a structure in which both the indirect object and the direct object surface with morphological accusative case, as in (5c):
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(5) \textit{ACC\_Theme – PP\_Goal}

a. διδάσκα μαθήματα στον Πέτρο.
   taught.1sg grammar.acc to-the Peter.acc
   ‘I taught grammar to Peter.’

\textit{GEN\_Goal – ACC\_Theme}

b. διδάσκα τον Πέτρο μάθημα.
   taught.1sg the Peter.gen grammar.acc
   ‘I taught Peter grammar.’

\textit{ACC\_Goal – ACC\_Theme}

c. διδάσκα τον Πέτρο μάθημα.
   taught.1sg the Peter.acc grammar.acc
   ‘I taught the children grammar.’

The construction in (5c) is discussed in detail in Anagnostopoulou (2001) and will not concern me here.

2.2 The genitive-PP alternation is a ‘dative alternation’

As discussed at length in Anagnostopoulou (1999a, b, 2001, 2003), the Greek alternation between a genitive DP and a PP shares many characteristics typical of the dative shift alternation in English (see also Markantonatou 1994). The former qualifies as a double object construction and the latter as a prepositional ditransitive, according to a number of criteria. Among them, I note here four:

(i) \textit{Animacy}. First, the DP construction in Greek is only tolerated with animate goals, similarly to the double object construction in English.

(6) *Ilektra έστησε τη Γαλιασ ένα δέμα.
    the Ilektra.nom sent.3sg the France.gen a parcel.acc
    ‘Ilektra sent France a parcel.’

Se-phrases can be inanimate, similarly to to-PPs in English:

(7) Ilektra έστησε ένα δέμα στη Γαλια.
    the Ilektra.nom sent.3sg a parcel.acc to-the France
    ‘Ilektra sent a parcel to France.’

The animacy restriction illustrated in (6) has been argued in the literature to reduce to possession (see, among others, den Dikken 1995; Pesetsky 1995 for discussion and references).^2

(ii) \textit{Predicate restrictions}. Second, there are verb classes that allow the genitive construction and others which don’t in Greek, similarly to English. PPs introduced by \textit{se} are less restricted, similarly to to-PPs in English. (See Anagnostopoulou 2003:11–15,
for a detailed comparison of the restrictions in Greek as opposed to the English ones discussed in Oehrle 1976; Pesetsky 1995:141; Pinker 1989; Gropen et al. 1989:243ff.)

(iii) **Passivization.** Third, as was first pointed out by Markantonatou (1994) and is extensively discussed in Anagnostopoulou (2003), passivization is prohibited from operating on ditransitive predicates which overtly project a genitive goal, similarly to English which prohibits, so called, 'direct passives' (compare the Greek examples below to their English translations; see Larson 1988 among many others for discussion):³

(8) a. ?*Tο το vivlio xaristice tis Marias apo ton Petro. the book.NOM award.NACT.3SG the Maria.Gen from the Petros
   ‘The book was awarded Mary by Peter.’

   b. ?*Tο γράμμα ταχιδρομισθείσε τυ Petru apo tin Ilektra. the letter.NOM mailed.NACT.3SG the Petros.Gen from the Ilektra
   ‘The letter was mailed Peter by Ilektra.’

Goals introduced by *se* may freely occur in passives, similarly to English goals introduced by the preposition *to*:

(9) Tο τo vivlio òðiçice sti Maria apo ton Petro. the book.NOM gave.NACT.3SG to-the Maria from the Petros
   ‘The book was given to Mary by Peter.’

(iv) **Nominalizations.** Finally, nominalizations related to the genitive construction are ruled out in Greek while nominalizations in which goals are realized as PPs are licit (see Alexiadou 2001; Anagnostopoulou 1999b, 2003):

(10) a. *I anaφθεις mias ðiskolís sonatas tis Marias apo ti ðaskala. the assignment a difficult.Gen sonata.Gen the Mary.Gen by ti teacher
   ‘The assignment of a difficult sonata of Mary by the teacher.’

   b. *I anaφθεις mias ðiskolís sonatas sti Maria apo to-the Mary by ti teacher
   ‘The assignment of a difficult sonata to Mary by the teacher.’

A similar contrast obtains in English. As discussed in Kayne (1984), Pesetsky (1995), Marantz (1997), Beck and Johnson (2004), among others, nominalizations cannot have the double object construction as their input, while nominalizations based on the *to*-construction are well formed:⁴
   b. *John’s assignment of Mary (of) a hard sonata.
   c. *Sue’s presentation of Mary (of) a metal.

(12) a. Sue’s gift of a book to Mary.
    b. John’s assignment of a hard sonata to Mary.
    c. Sue’s presentation of a metal to Mary.

On the basis of the tests presented in this section, I conclude that constructions with genitive goals in Greek are double object constructions, while their counterparts with se-goals are prepositional ditransitives.

2.3 The syntax of genitive goals and goals introduced by ‘se’

Having presented evidence that the genitive construction is a double object construction and the se-construction a prepositional ditransitive, I now turn to their structural analysis.

Following Marantz (1993), Collins (1997), McGinnis (1998) and Anagnostopoulou (1999a, b, 2001, 2003), among others, I assume that in double object constructions the indirect object is introduced by a semi-functional head vAPPL. This head is a light v which takes a VP complement. Applicative constructions in e.g. Bantu languages, which behave on a par with double object constructions (Baker 1988; Marantz 1993), provide evidence that a head separate from the lexical verb introduces the indirect object argument. In applicatives the verb stem necessarily combines with an overt affix, the applicative affix. Following Baker (1988) and Marantz (1993), I assume that a null applicative affix is also present in double object constructions. Following Kratzer (1994) and Chomsky (1995), I furthermore assume that the external argument is introduced by a higher causative or agentive transitive vVoice. The above considerations lead to the structure (13) for Greek ditransitives in which the goal surfaces as a genitive DP:

(13) 

```
(13) v1P
     |--- Subj
     |    v2P
     |    |--- vAPPL
     |    |    |--- v
     |    |    |--- DPACC
     |    |--- vTR
     |    |    |--- v1'
     |    |    |    |--- vTR
     |    |    |    |--- v2P
     |    |    |    |    |--- DFGEN
     |    |    |    |    |    |--- V
```
Structure (13) correctly accounts for the fact that in the genitive construction, the goal asymmetrically c-commands the theme, as illustrated in (14), on the basis of Barss and Lasnik’s (1986) each...the other test:

(14) a. Estila tis mias miteras to pêdi tis aλis.
    sent.1sg the one μother.gen the child.acc the other.gen
    ‘I sent each mother the other’s child.’

b. *Estila tis miteras tu alu to ena pêdi.
    sent.1sg the μother.gen the other.gen the one.child.acc
    ‘I sent the other’s mother each child.’

Greek also permits the ACC>GEN permutation (see e.g. Mackridge 1985/1987; Markantonatou 1994), unlike English where the order DP-THEME>DP-GOAL is strictly ungrammatical. The ACC>GEN order is more marked than the GEN>ACC order but is nevertheless possible. As argued for in Αναγνωστοπούλου (2003), the ACC>GEN permutation results from A’ movement/scrambling of the theme across goal because the theme is not allowed to bind into the goal in e.g. (15):

(15) *Estila to ena pêdi tis miteras tu alu.
    sent.1sg the one child.acc the μother.gen the other.gen
    ‘I sent each child (to) the other’s mother.’

Turning to se-PPs, note first that Greek permits both the DP>PP and the PP>DP permutation, as shown in (16a, b). This correlates with the fact that, as illustrated by the pair in (16c, d), Greek generally displays a freedom in the ordering of verbal DP and PP complements, which is not found in English:

(16) a. Estila ena δėma sti Γalia.
    sent.1sg a parcel.acc to-the France
    ‘I sent a parcel to France.’

b. Estila sti Γalia ena δėma.
    sent.1sg to-the France a parcel.acc
    ‘I sent to France a parcel.’

c. Evala to vivlio sto trapezi.
    put.1sg the book.acc to-the table
    ‘I put the book on the table.’

d. Evala sto trapezi to vivlio.
    put.1sg to-the table the book.acc
    ‘I put on the table the book.’

In each order the first object asymmetrically binds into the second. This is illustrated in (17a, b) for the DP>PP order and in (16c, d) for the PP>DP order (compare these facts to the properties of the ACC>GEN permutation in (15)):
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(17) a. Estila sent. to ena pêdi stin mitera tu alu.
    sent.sg the one child.acc to-the mother the other.gen
    ‘I sent each child to the other’s mother.’

b. *Estila sent. tis alis sti mia mitera.
    sent.1sg the child.acc the other.gen to-the one mother
    ‘I sent the other’s child to each mother.’

c. Estila sti mia mitera to pêdi tis alis.
    sent.1sg to-the one mother the child.acc the other.gen

d. *Estila sti mitera tu alu to ena pêdi.
    sent.1sg to-the mother the other.gen the one child.acc

There are three analytical possibilities for the word order and binding facts illustrated in (16), (17) (see Anagnostopoulou 2003 for discussion):

(i) The DP>PP order is basic, as argued for by Larson (1988) for English:

(18)

\[
\begin{array}{c}
\text{VP} \\
\text{DP} \quad \text{V'} \\
\text{V} \\
\text{se-PP}
\end{array}
\]

In this analysis, the PP>DP order is derived from the DP>PP one by leftward scrambling of the PP over the DP. This type of scrambling must be A-scrambling, which has been argued in the literature to feed binding and to not reconstruct for the purposes of the computation of binding principles (see e.g. Webelhuth 1989; Mahajan 1990, among many others, for discussion).

(ii) Alternatively, the PP>DP order is basic, as depicted in (19):

(19)

\[
\begin{array}{c}
\text{VP} \\
\text{se-PP} \\
\text{V'} \\
\text{V} \\
\text{DP} \quad \text{ACC}
\end{array}
\]

In this analysis, it is the DP>PP order which is derived, by leftward movement of the DP across the PP. Once again, this must be A movement feeding binding. Pesetsky (1995:221–223) argues for such an analysis for English on the basis of backward binding facts in (20a) and (20b) first noted in Burzio (1986:199–203):

(20) a. Sue showed John and Mary to each other’s friends.

b. Sue showed each other’s friends to John and Mary.
According to Pesetsky, the grammatical backward binding example in (20b) provides evidence that the theme in the English PP construction is at some stage in the derivation c-commanded by the goal.

(iii) The third option is that both are base generated orders, as depicted in (21):

(21) a. \[ \begin{array}{c}
  \text{DP}_{\text{ACC}} \\
  \text{V'} \\
  \text{V} \\
  \text{se-PP} \\
  \text{VP} \\
\end{array} \]

b. \[ \begin{array}{c}
  \text{VP} \\
  \text{se-PP} \\
  \text{V'} \\
  \text{V} \\
  \text{DP}_{\text{ACC}} \\
\end{array} \]

A rationale behind a free base-generation analysis might be that in the case at hand, there is no linking principle forcing one argument to be higher than the other. Marantz (1993) argues that certain thematic roles are such that it doesn’t matter where the one is merged relatively to the other.

In Anagnostopoulou (2003) I point out that there are no strong empirical reasons favoring one of these analyses against the others.7 I will assume here the free base-generation option, for simplicity reasons mainly. Assuming that the external argument is always introduced by a transitive light v, vTR, the vP shell in constructions including se-goals is as in (22):

(22) \[ \begin{array}{c}
  \text{vP} \\
  \text{Subj} \\
  \text{v} \\
  \text{vTR} \\
  \text{VP} \\
  \text{PP} \\
  \text{V} \\
  \text{DP}_{\text{ACC}} \\
\end{array} \]

2.4 Accounting for passives and derived nominals

In this section, I argue that the structures (13) and (22) proposed in Section 2.3 for genitive and se-goals, respectively, correctly account for their different behavior in passives and nominalizations (see Anagnostopoulou 2003 for extensive discussion of theme passivization in the presence of a goal in Greek and many other languages).

(i) Passives. Following Chomsky (1995, 2000) and Collins (1997), among others, I assume that movement proceeds in a local function, being subject to condition (23):

(23) If β c-commands α, and τ is the target of movement, then β is closer to τ than α unless β is in the same minimal domain as (i) τ or (ii) α.
According to (23), α can move across a c-commanding β to target τ if (i) either α and β belong to the minimal domain of the same head (XP and spec1 in 24a) (ii) or β and τ belong to the minimal domain of the same head (spec1 and spec2 in 24b):

\[ \begin{align*}
(24) \quad a. \quad & \text{KP} \\
& \text{spec2} \quad K' \\
& \quad \quad K^0 \quad YP \\
& \quad \quad \quad \text{spec1} \quad Y' \\
& \quad \quad \quad \quad \text{YP} \quad XP \\
\quad b. \quad & \text{KP} \\
& \text{spec2} \quad K' \\
& \quad \quad K^0 \quad YP \\
& \quad \quad \quad \text{spec1} \quad Y' \\
& \quad \quad \quad \quad \text{YP} \quad XP
\end{align*} \]

Given the definition of “closeness” based on minimal domains in (23), the ill-formedness of passives projecting a genitive goal follows from locality. Goals block NP movement of themes to T, as illustrated in (25) (following Marantz 1997; Collins 1997; Alexiadou 2001 and many others, I assume that passives feature an intransitive light v, vINTR, carrying agentive features):

\[ (25) \quad \text{Passives: Intervening genitive goal} \]

In (25), the genitive goal is higher and in a different minimal domain than the theme, qualifying as being closer to T, the target of NP-movement. The ungrammaticality of passivization of the theme in the presence of a genitive goal is thus correctly accounted for.\(^8\)

Unlike genitives, goal PPs introduced by se have been seen above to be well-formed in passives. Within the approach defended here, this asymmetry naturally follows from the hierarchical position of se-PPs. While DPs are located in a minimal domain which excludes the nominative, structures including PPs lack a vAPPL head, and PPs are therefore in the same minimal domain as themes. Theme NP-movement to T is thus well-formed, even in the presence of an intervening PP, as in structures (19) and (21b) discussed in Section 1.3 above. This derivation is depicted in (26):
(26) **Passives: Intervening goal se-PP**

\[
\begin{array}{c}
T' \\
T \\
vP \\
v_{\text{INTR},+\text{agent},-\text{trans}} \\
PP \\
V' \\
V \\
\text{Theme}
\end{array}
\]

Notice, incidentally, that the order of the theme and the PP in (26) could also be reversed, as in (18) and (21a), with no effect.

(ii) **Derived nominals.** According to an influential line of approaches, the restriction on event nominalizations based on the double object construction in English (examples (11) repeated below) is caused by the zero (applicative) head which is present in double object structures. The PP-goal construction does not include such a head and therefore, nominalizations as in (12), here repeated, are well-formed.

    b. *John’s assignment of Mary (of) a hard sonata.
    c. *Sue’s presentation of Mary (of) a metal.

(12) a. Sue’s gift of a book to Mary.
    b. John’s assignment of a hard sonata to Mary.
    c. Sue’s presentation of a metal to Mary.

Two different implementations of this core idea have been developed in the literature:

(i) According to Pesetsky (1995) and Marantz (1993), attachment of a derivational (adjectivizing or nominalizing) affix on a predicate consisting of the main verb and a zero affix attached to it leads to a violation of *Myer's Generalization* (27) (Myers 1984):

(27) Zero-derived words do not permit affixation of further derivational morphemes.

In order for the goal/beneficiary to be included in a nominalization, a zero applicative head must be present, as in (28a). But this will yield the form in (28b), with a nominalizer attaching to the zero-derived word \( [\sqrt{\text{give}} \ 0 \text{v}] \), violating (27).
Prepositional ditransitives are grammatical, as shown in (12), because they do not contain a zero affix (see structures (18), (19), (22)), and can be embedded under the nominalizer as they do not violate (27).

(ii) Pesetsky (1995) argues that *Myers's Generalization* also accounts for the lack of transitive nominalizations (see (30)) based on verbs participating in the causative-inchoative alternation (see (29)). Specifically he assumes that the causer in (29a) is introduced by a zero causative head CAUS. vCAUS cannot be included in the derived nominal in (30a), because this would lead to a violation of *Myers's Generalization* (27).

(29) a. John grows tomatoes.
   b. Tomatoes grow.

(30) a. *John's growth of tomatoes. *[[[√grow v] 0CAUS v]ion]
   b. The tomatoes' growth. [[√grow v] ion]

Marantz (1997) offers an alternative explanation for the ban on causative nominalizations in (30). Specifically, he proposes that roots like √DESTROY and √GROW are category neutral between N and V. When they are placed in a nominal environment the result is a nominalization. When they are placed in a verbal environment they become verbs. D's are functional heads in whose environments roots become nouns, while light v's are functional heads in whose environments roots become verbs, as illustrated in (31):

(31) a. 

b. 

In this analysis, (30a) is ungrammatical because a light v introducing the agent/causer is illicit in the root-nominal construction (31a). Its presence would create a verbal
environment, as in (31b). The grammaticality of transitive nominalizations with roots like √DESTROY, as in (32a) below, is due to the fact that such roots necessarily imply an external cause or agent, and a possessor optionally present in a nominal configuration which embeds √DESTROY can be interpreted as the causer of the externally caused change of state denoted by this root.

(32) a. Nero’s destruction of the city.
   b. The city’s destruction.

Marantz’s analysis of (30) can be straightforwardly extended to (11) if the goal in the double object construction is introduced by the light applicative verb v-APPL, as in structure (13). Assuming that vAPPL belongs to the class of heads that create a verbal environment, the ungrammaticality of nominalizations based on the double object construction is accounted for on a par with the ban of transitive √GROW-nominalizations. In this analysis, goals introduced by to are well-formed (see (12)) because they are introduced at the root-level (see (18), (19), (22) above) and therefore, they can be embedded under D yielding a nominal, as in (31a).

Turning to Greek, recall that genitive goals cannot be included in nominals while se-goals are licit in nominalizations, as was shown by (10a) and (10b), repeated here:

(10) a. *I αναθέσει μιας δισκολής σονάτας της Μαρίας από τη δασκάλα.
   b. I αναθέσει μιας δισκολής σονάτας στη Μαρία από τη δασκάλα.

The assignment of a difficult sonata of Mary by the teacher.
‘The assignment of a difficult sonata to Mary by the teacher.’

Structures (13) and (22) proposed in Section 1.3 for genitive and se-goals, respectively, correctly account for the facts in (10). Genitive goals in (10a) are introduced by vAPPL, as in (13), which cannot be included in nominals for the reasons outlined above. On the other hand, goals introduced by se are represented as in (22) which lacks vAPPL, and goal se-PPs are licit (10b).

To sum up, in this section I argued that the difference between genitive and se goals in terms of the presence vs. absence of vAPPL correctly accounts for their distribution in passives and nominals. Having discussed the properties of genitive and se-goals, I now turn to beneficiary constructions.
3. Beneficiary ditransitives

3.1 Forms of beneficiaries

Like goals, beneficiaries are realized either as PPs or as DPs with morphological genitive case. Unlike goals, though, beneficiaries can be introduced by two different prepositions: the preposition *jia* ‘for’ and the preposition *se* ‘to’. As a result, Greek has three variants of the beneficiary construction: two prepositional ones (one with *jia* and one with *se*) and one non prepositional. These options are illustrated in (33):

(33) ACC Theme – PP Beneficiary introduced by *jia*
   a. O Jianis eftiakse kafe jia ti Maria.
      the Jianis.NOM made.3SG coffee.ACC for the Mary.ACC
      ‘John made coffee for Mary.’
   b. O Jianis eftiakse kafe sti Maria.
      the Jianis.NOM made.3SG coffee.ACC to-the Mary.ACC
      ‘John made coffee to Mary.’

   GEN Beneficiary – ACC Theme
   c. O Jianis eftiakse tis Marias kafe.
      the Jianis.NOM made.3SG the Mary.GEN coffee.ACC
      ‘John made Mary coffee.’

3.2 The properties of beneficiary constructions

As with goals, the alternation between genitive beneficiaries and beneficiaries introduced by *jia* ‘for’ corresponds to the English beneficiary alternation. The genitive beneficiary construction qualifies a double object construction, and *jia*-PPs behave like *for*-beneficiaries. *Se*-PPs behave on a par with genitive beneficiary DPs rather than with *jia*-PPs with respect to the tests diagnosing ‘double object-hood’:

(i) Recipient interpretation. The examples in (34) illustrate an interpretational difference between genitive beneficiaries and beneficiaries introduced by *jia* (based on Kayne 1975:137; see Section 5 below on a comparable contrast in French):

(34) a. Ayorazi pexnijia tu egonu tu egonu tu.
    buy.3SG toys.ACC the grandchild.GEN the grandchild.GEN his
    ‘He buys some toys for the grandson of his grandson.’
   b. Ayorazi pexnijia jia ton egono tu egonu tu.
      buy.3SG toys.ACC for the grandchild.ACC the grandchild.GEN his
      ‘He buys some toys for the grandson of his grandson.’

Using the genitive in (34a) is appropriate only when there is a direct connection between the subject and the beneficiary. The sentence implies that the grandchild of the grandchild of the subject actually receives the toys, an interpretation requiring that
Variation of datives

both the subject and the beneficiary be alive. (34b) shows no such restriction. The subject may be merely thinking of his future descendent. A comparable difference in interpretation characterizes the English sentences in (35):

(35) a. John bought his wife a kimono #but finally gave it to his mistress.
    b. John bought a kimono for his wife, but finally gave it to his mistress.

In (35a) the ‘dative shifted’ beneficiary is the recipient of the theme. In (35b) the prepositional beneficiary is not. The genitive construction in (34a) patterns with the double object construction in (35a), while beneficiaries introduced by jia in (34b) behave similarly to beneficiaries introduced by ‘for’ in (35b). Interestingly, beneficiaries introduced by se are also understood as recipients, i.e. (36) has an interpretation similar to the interpretation of (34a/35a):

(36) Agorazi pexnìðjia ston egono tu egonu tu.
    buy.3SG toys.ACC to the grandchild.ACC the grandchild.GEN his
    ‘He buys some toys for the grandson of his grandson.’

A different set of examples showing that double object beneficiaries have a recipient interpretation while for beneficiaries do not impose such a restriction is discussed in Beck and Johnson (2004). Consider the sentences in (37):

(37) a. Thilo cooked spätzle for Satoshi.
    b. Thilo cooked Satoshi spätzle.

Beck and Johnson point out that the indirect object in (37a) has a significantly wider range of roles than the indirect object in (37b). For example, (37a) can be said in a situation in which Thilo cooked spätzle in place of Satoshi who was supposed to do the cooking, but wasn't able to for some reason. This interpretation is absent in (37b) which can only mean that Thilo cooked spätzle for Satoshi to have. Exactly the same difference is found in Greek. The jia-PP in (38a) is interpreted similarly to the for-PP in (37a). In contrast, the genitive DP in (38b) and the se-PP in (38c) can only be understood as recipients, on a par with the double object beneficiary in (37b):

(38) a. O Jianis majirepse spanakopita jia ton Petro.
    the Jianis.NOM cooked.3SG spinach pie for the Peter
    ‘Jianis cooked spinach pie for Peter.’
    b. O Jianis majirepse tu Petru spanakopita.
    the Jianis.NOM cooked.3SG the Peter.GEN spinach pie
    ‘Jianis cooked Peter spinach pie.’
    c. O Jianis majirepse ston Petro spanakopita.
    the Jianis.NOM cooked.3SG to-the Peter spinach pie
    ‘Jianis cooked Peter spinach pie.’

(ii) Predicate restrictions. The se-construction is only permitted with a limited set of predicates (e.g. buy-verbs, verbs of creation) similarly to the genitive construc-
tion. Both types are disallowed in many other environments which permit the *jia*-construction. Thus, while a verb like majirevo ‘cook’ permits all three options, as illustrated in (39), with a predicate like diaçizo tin erimo ‘cross the desert’ only the *jia*-construction is permitted, as illustrated in (40):

(39) a. O Jianis majirepse tiς Mariaς ceftedacia.
   the Jianis.NOM cooked.3SG the Mary.GEN meatballs.ACC
   ‘John cooked Mary meatballs.’

b. O Jianis majirepse tiς Mariaς ceftedacia.
   the Jianis.NOM cooked.3SG to-the Mary.ACC meatballs.ACC

   ‘John cooked a meal for Mary.’

c. O Jianis majirepse ceftedacia jia tiς Mariaς.
   the Jianis.NOM cooked.3SG meatballs.ACC for the Mary.ACC
   ‘John crossed the desert for Mary.’

(40) a. *O Jianis diaçise tiς Mariaς tin erimo.
   the Jianis.NOM crossed.3SG the Mary.GEN the desert.ACC
   ‘*John crossed Mary the desert.’

   the Jianis.NOM crossed.3SG to-the Mary.ACC the desert.ACC
   ‘*John crossed Mary the desert.’

c. O Jianis diaçise tin erimo jia tiς Mariaς.
   the Jianis.NOM crossed.3SG the desert.ACC for the Mary.ACC
   ‘John crossed the desert for Mary.’

Predicates behaving like the ones in (39) are e.g., ftiaxno kafe ‘make coffee’, xtizo ‘build’, ravo ‘sew’, pleko ‘knit’ etc. which in English allow the double object structure (see e.g., Pesetsky 1995:142). Predicates behaving similarly to the ones in (40) are e.g., kateðafizo to ktirio ‘demolish the building’, dolofono ton proèdro ‘murder the president’, which in English do not allow the double object structure. The preposition *jia* can add a beneficiary argument to all kinds of different predicates, while *se*-beneficiaries are allowed with a restricted set of verbs. Genitives occur with a superset of the verbs selecting for *se*-beneficiaries. Except for buy-verbs and verbs of creation which license genitive and *se*-beneficiaries, genitive DPs are also licensed with some transitive predicates e.g., break the door receiving a malefactive (adversely affected) interpretation.

In conclusion, predicate restrictions constitute the second criterion distinguishing genitive and *se*-beneficiaries from *jia*-beneficiaries. The former two are licensed by the specific semantics of the verbs, hence qualifying as arguments; the latter are independent of the verb qualifying as adjuncts.

(iii) *Passivization.* The third diagnostic is based on the behavior of beneficiaries in passives. Passives do not permit *se*-beneficiary PPs, as shown in (41b), (42b) similarly to genitives as in (41a), (42a) and unlike *jia*-PPs, which are well-formed as illustrated by (41c), (42c):
(41) a. *O kafes ftiaxtice tis Marias (apo ton Petro).
   the coffee.nom made.nact.3sg the Mary.gen (by the Peter)
   ‘The coffee was made Mary by Peter’
   b. *O kafes ftiaxtice sti Maria (apo ton Petro).
      the coffee.nom made.nact.3sg to-the Mary.acc (by the Peter)
   c. O kafes ftiaxtice jia ti Maria (apo ton Petro).
      the coffee.nom made.nact.3sg for the Mary.acc (by the Peter)
   ‘The coffee was made for Mary by Peter.’

(42) a. *T o fajito majireftice tis Marias (apo ton Petro).
   the food.nom cooked.nact the Mary.gen (by the Peter)
   ‘The meal was cooked Mary by Peter.’
   b. *T o fajito majireftice sti Maria (apo ton Petro).
      the food.nom cooked.nact.3sg to-the Mary.acc (by the Peter)
   c. T o fajito majireftice jia ti Maria (apo ton Petro).
      the food.nom cooked.nact.3sg for the Mary.acc (by the Peter)
   ‘The meal was cooked for Mary by Peter.’

It is important to note that the restriction against double object beneficiaries in passives illustrated in (41) and (42) is not identical to the restriction against double object goals in passives discussed in Sections 2.2 and 2.4 above (see also Anagnostopoulou 1999b for discussion). More specifically, as discussed in Anagnostopoulou (1999a, b, 2003), the ban against double object goals in Greek passives is not absolute. While passivization is prohibited from operating on ditransitive predicates which overtly project a genitive goal (see (8a) repeated here), the restriction on genitive goals can be canceled when the goal is realized as a clitic or is related to a doubling clitic, as in (43):

(8) a. ?*T o vivlio xaristice tis Marias apo ton Petro.
   the book.nom award.nact.3sg the Maria.gen from the Petros
   ‘The book was awarded Mary by Peter.’

(43) T o vivlio tis xaristice (tis Marias).
   the book.nom cl.gen award.nact.3sg the Maria.gen
   ‘The book was awarded to Mary.’

Recall from Section 1.4 that genitive goals in (8a) block NP-movement because they are higher than the base position of the nominative theme and not contained in the same domain as the nominative theme, as schematized in (44).

(44) [NOM [Domain α = DAT] [Domain β τ NOM]]

In Anagnostopoulou (1999a, b, 2003), I argue that in clitic-constructions the intervening features of the genitive goal move out of the way of the lower nominative theme, as schematized in (45), and thus the higher goal argument does not count as an intervener.
In this analysis, clitic doubling is a manifestation of local movement which licenses an otherwise impossible movement operation.

Unlike goal constructions, theme passivization does not become grammatical under cliticization or clitic doubling of the genitive beneficiary:

(46) a. *O kafes tis ftiàxtice (tis Marias) apo ton the coffee. nom cl. gen made. nact. 3sg the Marias gen by the Petro.
Peter
‘The coffee was made Mary by Peter.’

b. *To fajito tis majireftice (tis Marias) apo ton the food. nom cl. gen cooked. nact. 3sg the Marias gen by the Petro.
Peter
‘The meal was cooked Mary by Peter.’

The fact that theme passivization in the presence of a double object beneficiary is beyond repair, suggests that the ban against double object (genitive or se)-beneficiaries in passives should not be attributed to locality. If the ungrammaticality of these examples were to be explained in terms of (44), then clitic doubling and cliticization of the intervening beneficiary would rescue theme passivization, contrary to facts. I therefore propose that the Greek double object beneficiary construction cannot be the input to passivization at all, unlike the double object goal construction where passivization is, in principle, possible. It appears that the projection of a double object beneficiary is possible only in the context of a transitive v (vTR).

Genitives are accepted in passives formed with verbs of creation, provided that the agent is not expressed overtly in a by-phrase, as shown in (47). Crucially, the genitive argument in (47) is interpreted as being simultaneously the agent and the person that is negatively affected by the cooking event, i.e. it does not bear the beneficiary role. The presence of a doubling clitic is obligatory, as shown in (47), as is always the case in passives (see the discussion of (8a) vs. (43) above).

(47) To fajito den ?*(tis) majireftice tis Marias kala (*apo the food. nom not cl. gen cooked. nact. 3sg the Marias gen well by ton Petro).
the Peter
‘The meal was not cooked well by Mary and Mary was unhappy about it.’

In short, passives add an interesting wrinkle to the theory of double object constructions, as goal, beneficiary and adversely affected datives are subject to different restrictions. Before concluding, I would like to point out that the differences between
double object goal- and beneficiary-passives is not an idiosyncratic property of Greek but falls under a more general crosslinguistic pattern. More specifically, Spanish shows a similar contrast. While theme passivization in the presence of dative goal is freely allowed, with or without clitic doubling (as indicated in (48a) where the doubling clitic is put in brackets), theme passivization in the presence of an a-dative beneficiary, which requires clitic doubling, is prohibited (48b)\textsuperscript{15} (see Section 5 below for discussion of obligatory doubling of Spanish beneficiaries). These facts are discussed in Demonte (1995:11–12) and have been confirmed to me by Josep Quer (personal communication):\textsuperscript{16}

\begin{enumerate}
  \item[(48)] a. El premio Nobel (le) fue concedido a Cela el año pasado.
      \textit{The Nobel prize cl\_Dat was awarded to Cela last year}
  
    \hspace{1em}‘The Nobel prize was awarded to Cela last year.’

  b. *La casa le fue pintada a Juan anteayer.
      \textit{the house cl\_Dat was painted to Juan the day before yesterday}
  
    \hspace{1em}‘The house was painted Juan the day before yesterday.’
\end{enumerate}

According to Demonte (1995:11), a similar contrast is also attested in English. While theme-passivization in the presence of a DP-goal is, for some speakers, grammatical, theme passivization in the presence of a DP-beneficiary is for those speakers ill-formed (see (49a, b)). Moreover, goal passivization is always perfect, while beneficiary passivization is not when the direct object is definite (see (49c, d, e)):

\begin{enumerate}
  \item[(49)] a. (?)The book was given Mary.
  
    \hspace{1em}b. *The sandwich was fixed Mary.
  
    \hspace{1em}c. Mary was given the book.
  
    \hspace{1em}d. *Mary was fixed the sandwich.
  
    \hspace{1em}e. Mary was fixed a sandwich.
\end{enumerate}

(Native speakers of English disagree on the judgments in (49), as pointed out by Demonte 1995:11, fn. 9; the disagreement on these data has been confirmed to me by David Pesetsky, personal communication.)

(iv) Nominalizations. The final test showing that se-phrases qualify as double object beneficiaries, like genitive DPs and unlike jia-PPs, comes from the distribution of beneficiaries in nominalizations. Nominalizations including the form with se are impossible, as shown in (50b), (51b), like nominalizations related to the genitive construction in (50a), (51a) and unlike nominalizations based on jia-Beneficiaries in (50c), (51c):

\begin{enumerate}
  \item[(50)] a. *I sinðęsi tu trayuðju tis Marias.
      \textit{the composition the song\_Gen the Mary\_Gen}
  
    \hspace{1em}b. *I sinðęsi tu trayuðju sti Maria.
      \textit{the composition the song\_Gen to-the Mary
\end{enumerate}
3.3 The structures of beneficiary constructions

On the basis of the discussion in Section 3.2, I propose that genitive and se-constructions are double object constructions. They are represented as in (52):

\[
\begin{array}{c}
\text{v1P} \\
\text{Subj} \\
\text{vTR} \\
\text{v2P} \\
\text{DP}_{\text{GEN}} \\
\text{se-BENEF} \\
\text{vAPPL} \\
\text{VP} \\
\text{V} \\
\text{DP}_{\text{ACC}}
\end{array}
\]

Under structure (52) the properties (i)–(iv) discussed in Section 3.2 can be accounted for as follows:

(i) **Recipient interpretation.** The recipient interpretation of double object beneficiaries can be accounted for in terms of the proposal that vAPPL assigns a recipient theta-role to its specifier. Recall that genitive DPs can also have a malefactive (adversely affected) interpretation, entailing that a more refined typology of applicatives is necessary in order for the various interpretations of double object arguments to be accounted for. I would like to suggest that double object beneficiary/malefactive constructions involve two different types of vAPPL, one assigning the role “recipient” (vAPPL1) and one assigning the role “(adversely) affected” (vAPPL2) to their specifiers. Se PPs and genitive beneficiaries are introduced by vAPPL1. Adversely affected genitives are introduced by vAPPL2. (Cf. Kratzer 1994 who proposes that there are two different types of transitive Voice, vTR, one assigning the role Agent and one assigning the role Possessor.)
(ii) Predicate restrictions. Se-beneficiaries and beneficiary genitives can be added only to certain types of predicates (buy-verbs, creation verbs) because vAPPL1 imposes selection restrictions on its complement related to the recipient role it assigns. Similarly, malefactive genitives are licensed when the complement of vAPPL2 denotes an event that can be perceived of as negatively affecting the genitive argument.

(iii) Passives. In the preceding section, I have concluded that the projection of a double object beneficiary is possible only in the context of vTR. In the vAPPL analysis this constraint can be expressed in terms of selection. Only vTR, as in (52) can select for a v2P headed by a beneficiary vAPPL1. A passive vINTR not overtly projecting an agent and not assigning Case cannot combine with a beneficiary vAPPL1. Therefore double object beneficiaries are absolutely impossible in passives. Adversely affected genitives have been seen to be licit in passives. This suggests that the applicative head vAPPL2 can combine with a passive vINTR. In addition, the agent cannot be overtly expressed in a by-phrase and the adversely affected genitive is also interpreted as the agent of the event. To account for these effects, I will assume that the two heads, passive vINTR and vAPPL2, are “fused” into one in Greek. See Pylkkänen (2002) for arguments that light vs can occur “packaged” into one syntactic head, this being a point of variation across languages and constructions.

(iv) Nominalizations. Finally, beneficiary vAPPL1 as well as vAPPL2 cannot be present in nominalizations, either because of Myers’s (1984) Generalization (Pesetsky 1995) or because they are verbalizing heads (Marantz 1997). See the discussion of goal nominalizations in Section 2.4 above.

Structure (52) predicts that beneficiaries asymmetrically c-command themes. This is indeed correct. Consider first binding in the genitive construction:

(53) a. ὁ ἀρχιτέκτονας σχεδίασε το ἑνὸς πελατός το σπίτι. 3SG the.architect sketched the one.client GEN the.house ACC
    το άλλο. GEN
    ‘The architect sketched each client the other’s house.’

b. *ὁ ἀρχιτέκτονας σχεδίασε το ἱδιοκτήτη το άλλο σπίτι.
    3SG the.architect sketched the owner GEN the other GEN the
    house ACC
    ‘The architect sketched the other’s owner each house.’

Next, consider binding in the se-construction:

(54) a. ὁ ἀρχιτέκτονας σχεδίασε στὸ ἑνὸς πελατός το σπίτι
    3SG the.architect sketched to-the one.client ACC the.house ACC
    ‘The architect sketched each client the house.’
The architect sketched each client the other’s house.

b. *O arçitektonas sceðiase ston iðioktiti tu alu to the architect sketched.3sg the owner.acc the other.gen the ena spiti.
   one house.acc
   ‘The architect sketched the other’s owner each house.’

Note that in the ACC>se-beneficiary permutation, which is possible in Greek, binding of the theme into the beneficiary is deviant, as illustrated in (55), suggesting that the order feeding binding is the se-beneficiary>ACC order in (54). Compare the facts in (55) to the goal facts in (15) discussed in Section 2.3:

(55) a. *O raftis ekan ce erapse to ena kustumi
   the tailor made.3sg a mistake and sewed.3sg the one suit.acc
   ston ayorasti tu alu,
   to-the buyer.acc the other.gen
   ‘The tailor made a mistake and sew each costume to the other’s buyer.’

b. *O arçitektonas sceðiase to ena spiti ston iðioktiti
   the architect sketched.3sg the one house.acc to-the owner.acc
   tu alu,
   the other.gen
   ‘The architect sketched each house to the other’s owner.’

Turning to the jia-beneficiary construction, it allows for two permutations, as exemplified by (56):

(56) a. Eftiaksa to fajito jia ti Maria.
   made.1sg the food.acc for the Mary.acc
   ‘I made the food for Mary.’

b. Eftiaksa jia ti Maria to fajito.
   made.1sg for the Mary the food.acc
   ‘I made the food for Mary.’

In each order, precedence matches c-command modulo the preposition, similarly to prepositional goal constructions discussed in Section 2.2. (57) shows that in the ACC>PP permutation the theme asymmetrically binds into the beneficiary. (58) shows that in the PP>ACC permutation the beneficiary asymmetrically binds into the theme:

(57) a. O raftis ekan ce erapse to ena kustumi jia
   the tailor made.3sg a mistake and sewed.3sg the one suit.acc for
   ton ayorasti tu alu.
   the buyer.acc the other.gen

...
b. *O raftis ekane laðos ce erapse to kustumi tu
the tailor made.3SG a mistake and sewed.3SG the suit.ACC the
alu jia ton ena pelati.
other.GEN for the one client

(58) a. O arçitektonas sceðiase jia ton ena pelati to spiti
the architect sketched.3SG for the one client.ACC the house.ACC
tu alu.
the other.GEN
b. *O arçitektonas sceðiase jia ton iðioktiti tu alu to
the architect sketched.3SG for the owner.ACC the other.GEN the
ena spiti.
one house.ACC
"The architect sketched the other’s owner each house."

The above binding facts lead to the structures in (59) for jia-beneficiary constructions:

(59) a. 
```
```

b. 
```
```

The same structures have been proposed in Section 2.3 for se-goal constructions (compare (59) to (21)).

It should be pointed out, though, that there is a potential tension between the structures in (59) which place jia-PPs as arguments of the base verb and the data in (40), repeated here:

(40) a. *O Jianis ðiesçise tis Marias tin erimo.
the Jianis.NOM crossed.3SG the Mary.GEN the desert.ACC
"John crossed Mary the desert."
b. *O Jianis ðiesçise stin Maria tin erimo.
the Jianis.NOM crossed.3SG to-the Mary.ACC the desert.ACC
"John crossed Mary the desert."
c. O Jianis ðiesçise tin erimo jia ti Maria.
the Jianis.NOM crossed.3SG the desert.ACC for the Mary.ACC
"John crossed the desert for Mary."

The fact that jia beneficiaries can be added to any predicate, leads to their classification as adjuncts.

And indeed, there is independent evidence for the adjuncthood of jia beneficiaries, as opposed to genitive- and se-beneficiaries and genitive and se-goals which qualify as arguments. Greek has a kind of VP ellipsis that seems to correspond to do so ellipsis in English.18 More specifically, Greek employs the expression kano to iðjio ‘do the same’
whose antecedent has to include internal arguments but may exclude VP-adjuncts. (60) exemplifies the construction:

(60) a. O Kostas efaje to milo stin kuzina ce o Peter ekane to iðjio ston cipo.
    did.3sg the same in the garden
    ‘Kostas ate the apple in the kitchen and Peter did so in the garden.’

b. *O Kostas pij e stin Olanðia ce o Petros ekane to the Kostas went.3sg to-the Holland and the Peter did.3sg the
    iðjio sti Γαλα. same to the France
    ‘Kostas went to Holland and Peter did so to France.’

The locative phrase in (60a) is an adjunct and therefore kano to iðjio can be anaphoric to the V+DP constituent excluding the PP. In (60b), on the other hand, the locative is an argument of pao ‘go’ and for this reason the antecedent of kano to iðjio must include the PP. Thus, the kano to iðjio construction can be used as a test for argumenthood.

On the basis this diagnostic it can be inferred that jia beneficiaries are adjuncts, while all other types of beneficiaries and goals qualify as arguments. The beneficiary sentences in (61) and the goal sentences in (62) provide the relevant examples:

(61) a. O Petros eftiakse kafe jia ti Maria ce o Kostas
    the Peter.nom made.3sg coffee for the Mary.acc and the Kostas
    ekane to iðjio jia tin Katerina.
    did.3sg the same for the Katerina
    ‘Peter made coffee for Mary and Kostas did the same/did so for Katerina.’

b. *O Petros eftiakse kafe sti Maria ce o Kostas
    the Peter.nom made.3sg coffee to-the Mary.acc and the Kostas
    ekane to iðjio sti tin Katerina.
    did.3sg the same to-the Katerina
    ‘Peter made Mary coffee and Kostas did so Katerina.’

c. *O Petros eftiakse kafe tis Marias ce o Kostas
    the Peter.nom made coffee the Mary.gen and the Kostas
    ekane to iðjio tis Katerinas.
    did.3sg the same the Katerina.gen
    ‘Peter made Mary coffee and Kostas did so Katerina.’

(62) a. *O Petros estile to vivlio sti Maria ce o
    the Peter.nom sent.3sg the book.acc to-the Mary.acc and the
    Kostas ekane to iðjio stin Katerina.
    Kostas did.3sg the same to the Katerina
    ‘Peter sent the book to Mary and Kostas did so to Katerina.’
b. \textit{'*O Petros estile to vivlio tis Marias ce o the Peter.NOM sent.3sg the book.ACC the Mary.GEN and the Kostas ekane to iðjio tis Katerinas.  
Kostas did.3sg the same the Katerina.GEN  
'Peter sent Mary the book and Kostas did so Katerina.'}  

The grammaticality of (61a) can be accounted for if \textit{jia} beneficiaries are adjoined to a verb phrase constituent, either VP, as in (63) or vP, as in (64):

\begin{center}
\begin{tikzpicture}
    \node {vP} [level distance=2.5cm, sibling distance=2.5cm]
    child {node {Subj} edge from parent node[above] {v'}}
    child {node {vTR} [sibling distance=1.5cm]
        child {node {VP} [level distance=1.5cm, sibling distance=1.5cm]
            child {node {V} [level distance=1.5cm, sibling distance=1.5cm]
                child {node {eftiakse} [level distance=1.5cm, sibling distance=1.5cm]
                    child {node {DP} [level distance=1.5cm, sibling distance=1.5cm]
                        child {node {jia tin Maria} [level distance=1.5cm, sibling distance=1.5cm]}}}
            child {node {PP} [level distance=1.5cm, sibling distance=1.5cm]}}}}
    child {node {PP} [level distance=1.5cm, sibling distance=1.5cm]}

(63)
\end{tikzpicture}
\begin{tikzpicture}
    \node {vP} [level distance=2.5cm, sibling distance=2.5cm]
    child {node {Subj} edge from parent node[above] {v'}}
    child {node {vTR} [sibling distance=1.5cm]
        child {node {vP} [level distance=1.5cm, sibling distance=1.5cm]
            child {node {v} [level distance=1.5cm, sibling distance=1.5cm]
                child {node {eftiakse} [level distance=1.5cm, sibling distance=1.5cm]
                    child {node {kafe} [level distance=1.5cm, sibling distance=1.5cm]}}}}
    child {node {PP} [level distance=1.5cm, sibling distance=1.5cm]}

(64)
\end{tikzpicture}
\end{center}

Under either representation, the antecedent of \textit{kano to iðjio} is an XP, VP in (63), vP in (64),\textsuperscript{19} explaining why (61a) is grammatical. In contrast, the antecedent of \textit{kano to iðjio} is either an intermediate-level X' constituent – vAPPL' in (61b, c)/(62b), V' if the goal-PP in (62a) has the structure (19) – or no constituent at all, if the goal-PP in (62b) has the structure in (18), explaining why these sentences are ungrammatical.

The above considerations lead to the conclusion that \textit{jia}-Beneficiary constructions present conflicting evidence for constituency. On the one hand, binding suggests that they are attached low, which leads to their analysis as arguments.\textsuperscript{20} On the other hand, ellipsis suggests that they are adjuncts attached above the verbal constituent that contains the theme. The adjunct analysis is further corroborated by the observation that they can be added to any predicate, unlike genitive and \textit{se}-beneficiaries. Even though I will not attempt to resolve the issue here, I would like to point out that the problem posed by \textit{jia}-beneficiaries is not unique. Similar phrase structure paradoxes posed by PPs have been noted and are extensively discussed in the work of Pesetsky (1995), Phillips (1996), Lechner (2003) and others.
4. Oehrle’s contexts and the ambiguity of se-goals

We have seen that se-PPs can occur in double object Beneficiary constructions, unlike to-PPs which are limited to goal prepositional ditransitives. There is a related important difference between se-PPs and to-PPs, which can be detected when both realize goals: se-goals are licit in, so called, “Oehrle’s contexts”, which exclude to-goals. Consider the sentences in (65):


As pointed out by Oehrle (1976), the double object construction in (65a) has a reading which is paraphrased in (66):

(66) “Mailer wrote a book which he wouldn’t have been able to write if it hadn’t been for Nixon.”

(65b) cannot be interpreted this way. Nixon must be understood as having performed an action. This difference between prepositional ditransitives and double object constructions becomes clear once the subject is replaced by a DP which cannot be an agent (the examples below are taken from Oehrle 1976 and Pesetsky 1995):

(67) a. The war years gave Mailer his first big success.
    b. *The war years gave his first big success to Mailer.

(68) a. Katya taught me Russian.
    b. Katya taught Russian to me.
    c. Lipson’s textbook taught me Russian.
    d. *Lipson’s book taught Russian to me.

As pointed out by Anagnostopoulou (1999b), Greek se-goals, unlike English to-goals, are licit in Oehrle’s contexts (69), along with genitive DPs (70).

(69) a. Τα χρόνια τις εξορίες είδοσαν τον θεοδωράκη τον πρώτο μεγάλο επιτυχία. the years of exile.NOM gave.3PL to-the Theodorkis the first big success.ACC
    ‘The years of exile gave Theodhorakis his first big success.’
    b. Ο γάμος χαρίσα μαρία τη σταθερότητα. the marriage.NOM gave.3SG to-the Mary stability
    ‘Marriage gave Mary stability.’

(70) a. Τα χρόνια τις εξορίες του είδοσαν τον θεοδωράκη τον πρώτο μεγάλο επιτυχία. the years of exile.NOM CL.GEN gave.3PL the Theodorkis.GEN the first big success.ACC
    ‘The years of exile gave Theodhorakis his first big success.’
b. O γαμος τις xarise tis Marias staθerotita.
the marriage.nom CL.gen gave.3sg the Mary.gen stability.acc
‘Marriage gave Mary stability.’

The grammaticality of se-goals in Oehrle’s environments, which may only tolerate double object goals in English and other languages, provides evidence that se-PPs may, in fact, realize double object goals, despite appearances to the contrary. Interestingly, there is a tendency for the goal-PPs to precede theme-DPs in examples like (69), which is reminiscent of the tendency of genitive goals to precede accusative themes in the genitive construction (see the text surrounding example (15) in Section 1 above). Unlike se-Beneficiary PPs, which only occur in the double object frame, se-goal PPs are also employed in prepositional ditransitives, explaining why se-goal constructions fail the tests diagnosing “double-objecthood” such as animacy restrictions, nominalizations and passivization, as discussed in Section 3. Non-animate se-PPs are licit in prepositional ditransitives, which can furthermore be the input to nominalizations and theme-passives, yielding well-formed results. For this reason, the only diagnostic that can reveal the ambiguity of se-goals is provided by examples like (69), as prepositional goals are ruled out in these contexts.

5. Se-PPs vs. to-PPs

The discussion in the preceding sections has established an important disparity in the distribution of se-PPs and to-PPs in Greek and English ditransitives. The former realize prepositional goals but may also realize goals and beneficiaries in constructions that qualify as double object/applicative constructions. The latter occur exclusively in goal prepositional ditransitives. The question that arises is what explains this difference. In this section, I will argue that English to is directional and resultative, properties which prevent it from introducing arguments carrying the beneficiary role and from occurring in the double object frame. Greek se lacks these properties and therefore, has a wider distribution.

I will start with the facts illustrating the difference between se and to with respect to the feature ‘directional’. To begin with, se occurs in environments where English employs the non-directional prepositions in or at, as shown in (71a) and (71b). English to is ruled out in these environments because it is directional.

(71) a. O Petros zi stin Americi.
the Peter lives.3sg to/at-the America
‘Peter lives in the US.’
b. O Petρos emine sto spiti.
the Peter stayed.3sg to/at-the home
‘Peter stayed at home.’
Furthermore, *to* has the capacity to combine with pure locative prepositions like *in* and *on* yielding a directional meaning (see Pesetsky 1995:141–140, examples (376)):

(72) a. Mary pulled the trunk on the mat/ onto the mat.
    b. Mary pushed the heavy box in its proper place/ into its proper place.
    c. Sue dragged the sack in the office/ into the office.
    d. Mary shelepped the box in the office/ into the office.
    e. Mary lifted the box on the platform/ onto the platform.
    f. Mary gently lowered the saddle on the horse/ onto the horse.
    g. Mary drove the car in the garage/ into the garage.
    h. Mary lowered the balloon on the runway/ onto the runway.

According to Pesetsky, only the pure locative reading is possible for *in* and *on* in the above examples. For instance, the car in the *in the garage* version of (72g) must be in the garage during the entire event of driving. On the other hand, the car is not in the garage and ends up being in the garage in the *into the garage* version of (72g). In the Greek counterparts of (72) *se* is invariably used, and it is ambiguous between a pure locative and a directional reading. For example, in (73) below (the Greek counterpart of (72g)), the *se-PP* can describe a situation in which the car is in the garage throughout the driving event as well as a situation in which the car starts outside the garage and ends up in the garage as a result of Mary's driving.

(73) I Maria oðijise to aftocinito sto garage.
                  the Maria drove.3sg the car to-the garage.
‘Mary drove the car in/into the garage.’

Thus, *se* is neither a locative corresponding to *in* nor a directional corresponding to *into*. *Se* is unspecified for directionality and, therefore, it is compatible with both interpretations.

The fact that *to-PPs* denote direction while *se-PPs* can denote location or direction correlates with a significant contrast in their function in goal-ditransitives. There is one class of motion predicates that requires the presence of *to* in English and disallows the presence of *se* in Greek. More specifically, verbs that denote "continuous causation of accompanied motion in some manner" (an external agent is involved at all stages of motion) disallow the double object construction, as shown in (75), unlike verbs of "instantaneous causation of ballistic motion" (verbs denoting motion that is initiated by an external causer but its continuation depends on natural forces) which may occur in the double object frame along with the prepositional frame, as illustrated in (74) (see Pinker 1989; Gropen et al. 1989; Pesetsky 1995:137–141, the data are Pesetsky’s examples (370) and (371)):

(74) a. Mary threw John the book.
    b. Mary threw the book to John.
    c. Mary flung Sue the package.
    d. Mary flung the package to Sue.
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e. Mary kicked John the ball.
f. Mary kicked the ball to John.

(75) a. Mary pulled the trunk to Sue.
b. *Mary pulled Sue the trunk.
c. Mary pushed the boulder to John.
d. *Mary pushed John the boulder.
e. Mary schlepped the box to John.
f. *Mary schlepped John the box.

Pesetsky proposes that the ungrammaticality of the double object construction in (75) is due to the specialized semantics of to, the presence of which is required to assign a theta-role to the goal when the selecting predicate denotes the presence of an external agent at all stages of motion. Condition (76) (Pesetsky’s 1995:141 condition (377)) captures the obligatory presence of to introducing goals with these verbs:

(76) A Goal arrived at because of continuous imparting of force must be θ-selected by to.

Since the double object construction lacks to, it is not licensed with verbs denoting continuous imparting of force.

Interestingly, verbs of “continuous causation of accompanied motion in some manner” in Greek do not tolerate the preposition se, but require mexri, eos ‘up to’ instead (see Anagnostopoulou 2003):

(77) a. Traviksa tin poliðrona (*sti)/mexri/ eos ti Maria.
    pulled.1sg the armchair.acc to/up to the Maria
    ‘I pulled the armchair to Mary.’
b. Xamilosa to fos (*sti)/mexri/ eos ti Maria.
    lowered.1sg the light.acc to/up to the Maria
    ‘I lowered the light to Mary.’

Both mexri and eos are directional, as is evidenced by the fact that they are licit as complements of pijena ‘go’ (78a) and illicit with meno ‘live’ (78b):22

(78) a. I Maria pijen mexri/ eos to Vorio Polo.
    the Maria went.3sg to the North Pole
    ‘Mary went to the North Pole.’
b. *O Petros meni mexri/ eos tin Americi.
    the Peter live.3sg to the America
    ‘Peter lives to the US.’

The contrast between to and se as well as the contrast between se and mexri/ eos both suggest that verbs of “continuous causation of accompanied motion in some manner” must combine with goals introduced by prepositions that are specified as directional, i.e. it is the semantic feature DIRECTION/PATH that underlies θ-selection of Goals by to in Pesetsky’s Condition (76).23
The meaning difference between *to*-PPs and *se*-PPs described so far can explain why *se* is associated with more theta-roles than *to* in ditransitives. *To* is directional and is therefore limited to goals. On the other hand, we have seen that *se* may introduce goals and pure locations. I propose that the unspecified meaning of *se* is responsible for the fact that it may also introduce beneficiaries, i.e. the lack of specialized semantics makes *se* compatible with at least three different roles: goal, location, beneficiary.

I now turn to another set of facts which illustrate that *to*-PPs and *se*-PPs have a different behavior with respect to telicity. This potentially explains why the former are limited to prepositional ditransitives while the latter can also occur in double object constructions.

As is well-known (see e.g. Levin & Rapaport 1995; Snyder 2001; Beck & Snyder 2001 for recent discussions and references), English *to*-PPs can create accomplishments by combining with activity verbs. Greek *se*-PPs differ in this respect: they cannot turn atelic predicates into telic. Consider the sentences in (79) and (80):

(79) a. Paul walked for an hour.
   b. *Paul walked in an hour.
   c. Paul walked to the summit in an hour.

(80) a. O the Petros perpatise jia/epi mia ora.
   the Peter walked for/for one hour
   ‘Peter walked for an hour.’
   b. *O Petros perpatise se mia ora.
      the Peter walked in one hour
      ‘*Peter walked in an hour.’
   c. *O Petros perpatise stin korifi se mia ora.
      the Peter walked to-the summit in one hour
      ‘*Peter walked to the summit in an hour.’

(79a) and (80a) vs. (79b) and (80b) exemplify for English and Greek, respectively, the well known fact that activity predicates are compatible with *for*-adverbials and incompatible with *in*-adverbials (see Dowty 1979 and many others). *In*-adverbials become licit, though, when activities combine with directional *to*-PPs, as in (79c), showing that the predicate qualifies as an accomplishment. In contrast, *in*-adverbials are impossible in examples like (80c), which contain locative *se*-PPs, indicating that Greek *se*-phrases cannot alter the telicity of the base predicate (Horrocks & Stavrou 2003).

A possible explanation for this contrast between *to*-PPs and *se*-PPs would be to resort to a property that English has and Greek lacks: the availability of resultative constructions. More specifically, Snyder (1995) and Beck and Snyder (2001) argue on the basis of a comparative examination of English, German, Japanese, Khmer, Korean, Mandarin, French, Hebrew, Hindi/Urdu, Russian and Spanish that the telic interpretation of predicates like *walk to the summit* is possible only in languages that have resultatives and a number of further properties correlating with resultative formation. These are; (i) Availability of verb-particle constructions. (ii) Availability of root compounding as a productive means of word formation (Snyder 1995, 2001). (iii)
Availability of restitutive readings of *again* along with repetitive readings (von Stechow 1995; Beck & Snyder 2001). In the repetitive interpretation of *again*, an action has happened before. In the restitutive interpretation, the result of an action has happened before, but not necessarily the action itself.

To illustrate, *walk to the summit* is an accomplishment in English which also allows resultative constructions as in (81a), root compounding as in (81b), and a restitutive repetitive ambiguity of (82a) which is interpreted either as (82b) or as (82c):

\begin{enumerate}
\item (81) a. Mary beat the metal smooth.
\item b. worm can
\item (82) a. Sally walked to the summit again.
\item b. Sally walked to the summit, and she had done that before. \textit{repetitive}
\item c. Sally walked to the summit, and she had been there before. \textit{restitutive}
\end{enumerate}

On the other hand, *walk to the summit* is not an accomplishment in Spanish since it cannot be combined with an in \textit{an hour} adverbial (83a). In this language, resultatives (83b), root compounding (83c), and restitutive *again* interpretations (83d) are also ruled out:

\begin{enumerate}
\item (83) a. *Juan anduvo hasta la cima de la montaña en una hora.*
\item b. *María golpeó el metal liso.*
\item c. bote *(de)* gusanos
\item d. Suresh anduvo hasta la aldea otra vez.
\end{enumerate}

Beck and Snyder (2001) argue that the (un-)availability of accomplishments with goal-PPs and the (un-)availability of resultatives, root compounding and restitutive *again* result from a single semantic parameter which consists in the (un-)availability of a principle of semantic composition creating accomplishments (proposed by von Stechow 1995). English has this principle, and an accomplishment can be created syntactically from the combination of an activity (the matrix predicate) and a state (the result predicate) explaining the grammaticality of (79c) and (81a). Spanish lacks this principle, and the examples in (83a, b) are ruled out as uninterpretable.

Greek could be claimed to be like Spanish. We already saw that Greek lacks the ability to construct accomplishments from activities with the goal preposition se, as in (80) above. This correlates with the fact that it also lacks resultatives, as shown in (84), (see Giannakidou & Merchant 1999 and Horrocks & Stavrou 2003 for discussion) as well as verb-particle constructions:
First, the creation of an accomplishment from an activity via a goal se-PP is possible with a few verbs, such as *sernome* 'crawl':

\[(85)\]
\begin{align*}
\text{a. } & \text{O Petros sirifice sto patoma jia deka lepta.} \\
& \text{the Peter crawled.3sg on-the floor for ten minutes} \\
& \text{‘Peter crawled on the floor for ten minutes.’} \\
\text{b. } & \text{*O Petros sirifice sto patoma se deka lepta.} \\
& \text{the Peter crawled.3sg on-the floor in ten minutes} \\
& \text{‘Peter crawled on the floor in ten minutes.’} \\
\text{c. } & \text{O Petros sirifice stin eksodo se deka lepta.} \\
& \text{the Peter crawled.3sg to-the exit in ten minutes} \\
& \text{‘Peter crawled to the exit in ten minutes.’}
\end{align*}

Second, availability of resultatives appears to be allowed when the result state is a color or some gradable properties, like *high* or *low*:25

\[(86)\]
\begin{align*}
\text{a. } & \text{O Petros evapse to spiti aspro.} \\
& \text{the Peter painted.3sg the house white} \\
& \text{‘Peter painted the house white.’} \\
\text{b. } & \text{O Petros extise to spiti psilo.} \\
& \text{the Peter built.3sg the house tall} \\
& \text{‘Peter built the house tall.’}
\end{align*}

In these cases, *again* has a restitutive interpretation, as shown by contexts like (87):

\[(87)\]
\begin{align*}
\text{a. } & \text{Otan o Petros niciase to spiti itan poli vromiko.} \\
& \text{when the Peter rented.3sg the house it was very dirty} \\
\text{b. } & \text{Ce etsi evapse tus tixus asprus ksana.} \\
& \text{and so painted.3sg the walls white again} \\
& \text{‘When Peter rented the house it was very dirty. So, he painted the walls white again.’}
\end{align*}

Clearly, the restitutive reading is the only available reading of (87b) in the context of (87a). The walls of the house had been white before, but crucially they were not painted white by Peter who paints them white for the first time after he rents the house in a dirty state.

Finally, Snyder's compounding parameter ("The grammar does (not) freely allow open-class, non-affixal lexical items to be marked [+ ‘Affixal’", Snyder 1995:63) is too strong for Greek as there are cases of free N-N compounds (Anastassiadi-Simeonidi...
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1986), and A-N compounds (Ralli & Stavrou 1997/1998) – i.e. open-class items (i.e. words) that function like affixes (e.g. nomos plesio ‘law-framework’, taksidi astrapi ‘trip lightning’ (nam. very brief trip) – see also Horrocks & Stavrou 2003).

In view of the fact that Greek shows a mixed behavior with respect to the resultative parameter, an alternative, more conservative, explanation for the difference between se and to with respect to telicity might be that only directional PPs can turn atelic predicates into telic (see e.g. Levin 1993:105), and se-phrases are not directional, unlike to-phrases (see Horrocks & Stavrou 2003 on the non-directional meaning of se, as opposed to to, and on the relation between (non-)directionality and (non-)telicity of prepositions). This proposal is supported by the observation that Greek can construct accomplishments from activities with mexri and eos ‘up to’, which have been argued above to be directional (see the discussion of (77) and (78)):26

(88) O Petros perpatise mexri/ eos tin korifi se mia ora.

the Peter walked.3sg up to the summit in one hour

‘Peter walked to the summit in an hour.’

With these considerations in mind, let us turn to ditransitives. Recall that se-PPs, unlike mexri/eos-PPs, are incompatible with verbs of “continuous causation of accompanied motion in some manner” (see (77)). This incompatibility can now be linked to the fact that se-PPs cannot create accomplishments from activities. Verbs of continuous causation of accompanied motion are atelic, as can be seen from examples where they occur with a single theme complement:

(89) a. Traviksa to scini jia dio lepta/ ?*se dio lepta.

pulled.1sg the rope for two minutes/ ?in two minutes

‘I pulled the rope for two minutes/ in two minutes.’

b. Esproksa to karotsi jia dio lepta/ ?*se dio lepta.

pushed.1sg the cart for two minutes/ ?in two minutes

‘I pushed the cart for two minutes/ in two minutes.’

It is therefore expected that such predicates will be incompatible with se-goals and will require mexri/cos-goals when used in a ditransitive frame: we just saw that only the latter prepositions can create telic predicates from atelic ones. Note that verbs like stelno ‘send’ and pulao ‘sell’, which co-occur with se-goals, qualify as telic when they surface with a single theme complement:27

(90) a. Estila to fax ?*jia dio lepta / se dio lepta.

sent.1sg the fax ?*for two minutes / in two minutes

‘I sent the fax ?*for two minutes/ in two minutes.’

b. Pulisa to spiti mu ?*jia ena mina / se ena mina.

sold.1sg the house my for one month / in one month

‘I sold my house in a month.’

Note, furthermore, that there are some verbs in the Greek “continuous causation of accompanied motion” class which may tolerate in-adverbials along with for-adverbials
when used with a single complement, a fact suggesting that they can be construed as either telic or atelic:

(91) Kuvalisa to karotsi jia ðio lepta/ se ðio lepta. carried.1sg the cart for two minutes/ in two minutes
'I carried the cart for two minutes/ *in two minutes.'

These verbs tolerate se-goals on a par with mexri/ eos-goals:

(92) Kuvalisa to karotsi mexri/ eos ti Maria / ?sti Maria. carried.1sg the cart up to the Mary / to-the Mary
'I carried the cart to Mary.'

Finally, very few verbs which are atelic when they combine with a single complement become telic when a se-goal is added. One such example is serno 'drag':

(93) a. Esira to karotsi jia ðio lepta/ *se ðio lepta. dragged.1sg the cart for two minutes/ *in two minutes
'I dragged the cart for two minutes/ *in two minutes.'

b. Esira to karotsi stin eksedo se ðio lepta. dragged.1sg the cart to-the exit in two minutes
'I dragged the cart to the exit in two minutes.'

Recall that creation of an accomplishment from an activity via a goal se-PP is also possible with a few intransitive verbs, such as sernome 'crawl', the intransitive variant of serno (see (85) above). In conclusion, verbs of continuous causation of accompanied motion in English and Greek reveal a significant disparity in the semantics of to-goals and se-goals in ditransitives. When to-goals are added to atelic predicates they invariably yield accomplishments from activities by introducing an end-point to the ongoing event denoted by the V + theme complex. Greek se-goals do not introduce such an end-point.

Beck and Johnson (2004) argue on the basis of restitutive again that to-goals always introduce result states in English prepositional ditransitives. In Beck and Johnson’s proposal (as in Snyder 2001), prepositional ditransitives are resultatives arising from the combination of an activity and a result state through the application of von Stechow’s (1995) principle of semantic composition discussed above. The result states are the denotations of the to-PPs, which provide the crucial information about the result state of the event. Beck and Johnson argue that the end-state of double object constructions is uniformly a state of possession of the theme by the goal rather than a state provided by the goal argument alone. Greek se-goals have been shown to be in most cases illicit when the V + theme complex is atelic (with the exception of a few verbs like serno ‘drag’ in (93)), which entails that they do not denote result states in these constructions. Possibly they never denote result states, in which case they are interpreted as modifiers (see Beck & Snyder 2001). 28 I would like to propose that the different properties of to-PPs and se-PPs w.r.t. resultativity explains why the former are limited to the prepositional frame while the latter can also be employed in
the double object frame. To-PPs necessarily denote result states, and are therefore licit only in prepositional ditransitives where the result state is contributed by the PP. On the other hand, se-PPs are incapable of introducing result states with most (intransitive and transitive) activities, and it is questionable if they ever make a result state available (see Note 29). Nothing in its semantics, therefore, limits se to prepositional ditransitives and prevents it from introducing arguments in double object/applicative constructions. Se has very little meaning; there is not much distinguishing it from a dummy element.

6. On the categories of high and low datives

In the preceding sections, I have argued that the Greek locative preposition se has two interesting properties. (a) It introduces not only goals but also beneficiaries. (b) Indirect object arguments headed by se are inserted not only in prepositional ditransitives but also in double object constructions. The English locative preposition to differs from se in both respects: it introduces exclusively goals, and only in prepositional ditransitives. I have argued that this difference in distribution can be explained in terms of the semantic properties of to vs. se.

The question I will address in this section is whether the contrasting semantics and external syntax of to and se are associated with a difference in their internal syntax, more specifically in their categorial status. One might expect that to is a true preposition while se is a case marker comparable to accusative or dative, at least when it occurs in the double object frame. On the standard view that indirect objects are DPs in double object constructions and PPs in prepositional ditransitives, this would, in fact, be the null hypothesis to pursue. In order to answer this question, I will compare Greek se-datives to Japanese ni-goals and French a-datives (goals and beneficiaries). At first, I will discuss Japanese which supports the view that high goals are DPs and low goals PPs. A comparative analysis of French and Greek, though, will lead me to finally reject the view that there is a necessary correlation between the hierarchical position and the categorial status of dative arguments. I will close with a discussion of Spanish a-datives which require clitic doubling when they occur in the double object frame. A comparison of Greek, French and Spanish will lead me to conclude that cliticization and clitic doubling do not constitute reliable diagnostics for determining the categorial status of dative arguments, contrary to what is often assumed in the literature.

6.1 Japanese high ‘ni’-datives are DPs and low ‘ni’-datives are PPs

In Japanese, indirect object goals are marked by the dative postposition ni and direct objects surface with the accusative postposition o.29 The relative order of goals and themes is flexible, as illustrated in (94) (from Miyagawa 1997: 1):
The two surface strings in (94) are bi-uniquely mapped into two different hierarchical tree representations, as documented by the distribution of anaphoric dependencies. In the order dative-accusative, the dative may bind a reciprocal contained within the accusative, as in (95a), whereas the accusative cannot license a reciprocal in the dative, as in (95b) (from Ura 1996:193):

(95) a. $IO_i [DO \recip_{\text{reciprocal}}]$  
Mary ga [John to Bill]$_k$ ni [otagaik no sensei] o Mary nom John and Bill DAT each other GEN Teacher ACC syookaisita.
introduced
‘Mary introduced each other’s teachers to John and Bill.’

b. $*[IO \recip_{\text{reciprocal}}] DO_i$
*Mary ga [otagaik no sensei] ni [John to Bill]$_k$ o Mary nom each other GEN teacher DAT John and Bill ACC syookaisita.
introduced
‘Mary introduced John and Bill to each other’s teachers.’

In the accusative-dative order, binding relations are reversed. The accusative can bind a reciprocal inside the dative (see (96a)), from Ura 1996:195), but not vice versa (see (96b), provided by Kazuko Yatsushiro p.c.; see also Miyagawa 1997:4):

(96) a. $DO_i [IO \recip_{\text{reciprocal}}]$  
Mary ga [John to Bill]$_k$ o [otagaik no sensei] ni Mary nom John and Bill ACC each other GEN teacher DAT syookaisita.
introduced
‘Mary introduced John and Bill to each other’s teachers.’

b. $*[DO \recip_{\text{reciprocal}}] IO_i$
*Mary ga [otagaik no sensei] o [John to Bill]$_k$ ni Mary nom each other GEN teacher ACC John and Bill DAT syookaisita.
introduced
‘Mary introduced each other’s teachers to John and Bill.’
Two competing analyses for the word order alternation in (94)–(96) have been proposed in the literature.

According to the standard view (Hoji 1985; Takano 1998; Yatsushiro 2001), Japanese lacks the dative alternation. The goal>theme order in (94a) is considered to be basic, while the permutation in (94b) is argued to derive from (94a) by optional scrambling of the theme across the goal. On the other hand, Miyagawa (1997) and Miyagawa and Tsujioka (to appear) argue convincingly that the scrambling analysis is incorrect and that strings in which the goal precedes the theme are double object constructions, whereas theme-goal orders are prepositional ditransitives. Central for their argumentation is the fact that the suffix *ni* is a case marker in the goal-theme construction and a postposition in the theme-goal construction. Evidence for the ambiguity of *ni* is provided by numeral quantifier float. As shown in (97a, b), Q-float in Japanese is licit with DPs and blocked with PPs (data from Ura 1996:201, 204–205):

(97) a. John ga hon o Mary ni san-satsu age ta.
   John NOM book ACC Mary DAT three CL give PAST 'John gave three books to Mary.'
   b. *John ga tomodati kara san nin tegami o orat ta.
   John NOM friends from three CL letters ACC receive PAST 'John received letters from three of his friends.'

Crucially, Q-float of numerals construed with datives leads to well-formed results only when the goal is animate (see (98); Miyagawa & Tsujioka to appear), and only when the animate goal precedes the theme (see (99); data from Miyagawa 1997):

(98) a. Taro ga gakusei ni futa-ri nimotu o okutta.
   Taro NOM students DAT two CL package ACC sent 'Taro sent two students a package'
   b. *Daitooryoo ga kokkyoo-ni futa-tu heita ni okutta.
      president NOM borders-to two CL soldiers ACC sent 'The President sent two borders soldiers'

(99) a. Mary ga tomodati ni futa-ri CD o okutta.
   Mary NOM friends DAT two CL CD ACC sent 'Mary sent two friends a CD'
   b. ?? Mary ga CD o tomodati ni futa-ri okutta.
      Mary NOM CD ACC friends DAT two CL sent

The fact that dative goals are DPs when they are animate and precede themes, while they are PPs when they are inanimate or when they are animate and follow themes can be explained in terms of the hypothesis that *ni* is ambiguous between a case marker and a postposition. Since the alternation in category is typical of the dative shift alternation, Q-float leads to the conjecture that the goal>theme construction in (94a) is a double object construction and the theme>goal construction in (94b) a prepositional ditransitive.
And indeed, the goal-theme construction shows characteristics typical of the double object construction. These are particularly clear under Q-floating because goals are unambiguously higher DPs when they are associated with floated numerals. One such characteristic is the fact that high goals can be passivized, similarly to goals in English,\textsuperscript{31} while low goals cannot, as shown in (100). In (100a), which is well-formed, the stranded quantifier marks the position of a high goal while in (100b), which is ill-formed, the quantifier marks the position of the low goal (data from Miyagawa & Tsujioka to appear):

\begin{equation}
\text{(100) a. Gakusei ga Taro-ni tō san-nin nimotu o okur-are-ta.}
\end{equation}

\begin{align*}
\text{students} & \text{ nom } \text{Taro-by } tō \text{ 3.CL package } \text{ acc send.pass.past} \\
\text{‘Three students were sent a package by Taro.’}
\end{align*}

\begin{equation}
\text{(100) b. *Gakusei ga Taro-ni nimotu-o tō san-nin okur-are-ta.}
\end{equation}

\begin{align*}
\text{students} & \text{ nom } \text{Taro-by } \text{ package.acc tō 3.CL send.pass.past} \\
\text{‘Three students were sent a package by Taro.’}
\end{align*}

Inanimate goals cannot be passivized patterning with low animate goals:

\begin{equation}
\text{(101) *Tokyo ga nimotu o okur-are-ta.}
\end{equation}

\begin{align*}
\text{Tokyo nom package acc send.pass.past} \\
\text{‘Tokyo was sent a package.’}
\end{align*}

A further characteristic is exemplified by (102). Theme passivization cannot proceed across a high goal, as shown in (102a) where the high goal is marked by Q-floating, while it may proceed across a low goal, as illustrated by (102b) where there is no Q-floating associated with the dative goal:

\begin{equation}
\text{(102) a. *Nimotu ga Taro-ni (yotte) gakusei ni futa-ri okur-are-ta.}
\end{equation}

\begin{align*}
\text{package nom Taro-by students dat 2.CL send.pass.past} \\
\text{‘*A package was sent two students by Taro.’}
\end{align*}

\begin{equation}
\text{(102) b. Nimotu ga Taro-ni (yotte) Hanako ni okur-are-ta.}
\end{equation}

\begin{align*}
\text{package nom Taro-by Hanako dat send.pass.past} \\
\text{‘A package was sent to Hanako by Taro.’}
\end{align*}

The reader is referred to Miyagawa and Tsujioka (to appear) for more evidence that the goal-theme construction is a double object construction.

In conclusion, Japanese ni-goals, similarly to Greek se-datives, occur both in double object constructions and in prepositional ditransitives. Moreover, Japanese presents straightforward evidence that the category of goal phrases is not identical in the two constructions. High goals are DPs and low goals are PPs, exactly as expected by theories viewing the alternation in the categorial status of dative arguments as a defining property of the dative alternation.
Variation of datives

6.2 High and low French 'a'-datives

French 'a'-datives are very similar to Greek se-datives both in their semantics and in their distribution (unless otherwise indicated, the French data in this and the next section have been provided to me by Dominique Sportiche, personal communication).

To begin with the semantics, the prepositional element 'a' is locative not specified for the feature DIRECTION/PATH, just like Greek se ((103a) from Kayne 1975:1):

(103) a. Les garçons sont tous partis à la guerre.
   'The boys have all gone to the war.'
   
   b. Jean est à la maison.
   'Jean is at home.'
   
   c. Kyriakos vit à Athènes.
   'Kyriakos lives in Athens.'

Like se and unlike to, a cannot shift an activity to an accomplishment ((104) is taken from Beck & Snyder 2001):

(104) *Jean a marché au sommet en une heure.
   'Jean walked to the summit in an hour.'

More generally, French has a negative setting of the resultative parameter, according to Beck and Snyder (2001), as it lacks resultatives, verb particle constructions, noun compounding, and restitutive readings of again in examples like (105) (from Beck & Snyder 2001):

(105) Jean a marché de nouveau au sommet.
   'Jean walked again to the summit.'

Turning from the meaning to the distribution of a, note first that a, like se, introduces goals and also beneficiaries:

(106) a. Il a donné un gâteau à la femme.
   'He has given a cake to the woman.'
   
   b. Il a préparé un gâteau à la femme.
   'He has made a cake for the woman.'

A-beneficiaries alternate with beneficiaries introduced by the preposition pour in French, just as se-beneficiaries alternate with jia-beneficiaries in Greek:
(107) Il a préparé un gâteau pour la femme.
    he has made a cake for the woman
    ‘He has made a cake for the woman.’

In what follows, I will discuss the goal construction in (106a) first, proceeding from there to the beneficiary construction in (106b).

As in Greek se-goal ditransitives, precedence matches c-command in French a-goal ditransitives. (108a) illustrates that indirect object quantifiers may bind pronominal variables to their right, whereas direct object quantifiers take scope over indirect objects which they precede, as documented by (108b) (from McGinnis 1998:98–99; compare these facts to the Greek facts in (17) above):

(108) a. Jean a attribué [à chaque mot], son symbole.
    Jean has attributed to each word its symbol
    ‘Jean attributed to each word its symbol.’
    b. Jean a attribué [chaque mot], à son symbole.
    Jean has attributed each word to its symbol
    ‘Jean attributed each word to its symbol.’

French resembles Greek once again in that the well-formedness of the two alternative permutations in (108) correlates with a more general freedom in the relative ordering of verbal DP and PP complements (data from Belletti & Shlonsky 1995; compare the data in (109) to their Greek counterparts in (16c) and (16d)):

    I have put this book on the table
    ‘I put this book on the table.’
    b. J’ ai mis sur la table ce livre.
    I have put on the table this book

In passives, a-goals are well-formed, similarly to Greek se-goals (data from McGinnis 1998; compare (110) to (9) in Section 1):

(110) Un cadeau a été offert à Marie.
    ‘A gift has been given to Marie.’

Finally, a-goals are licit in nominalizations (compare (111), provided to me by Cedric Boeckx, personal communication, to the Greek example (10b) above):

(111) La restitution des territoires aux Palestiniens.
    the return of the territories to the Palestinians

Recall that nominalizations are derivationally related to the PP-goal construction in English and Greek, as in *Sue’s gift of a book to Mary, but not to the double object construction, as in *Sue’s gift of Mary (of) a book. In Section 1 this asymmetry has been accounted for in terms of the hypothesis that vAPPL, which introduces the goal in the double object construction, is not licensed in nominals. On this view, the well-
formedness of (111) indicates that a-goals are not introduced by vAPPL; rather they are arguments of the root. The freedom of word order and binding exemplified in (108a) and (108b) can be analyzed similarly to the Greek alternation in (16) and (17) proposed in Section 1, i.e. either in terms of A-scrambling of one object across the other (taking either the theme>goal as basic as in (18) or the goal>theme order as basic as in (19)) or in terms of free base-generation of the two objects, as in (21). What is crucial for present purposes is the fact that both the theme and the goal are arguments of V. In the passive (110) the theme moves to T from the minimal domain of V which contains the dative a-goal, and the sentence is correctly predicted to be well-formed even if the goal is taken to c-command the theme, as in (26) repeated here:

(26)

The data discussed so far strongly suggest that a-goals and se-goals share the same syntax, namely that of a dative in a prepositional ditransitive. But there is also evidence that a-goals are inserted in the double object frame. Specifically, a-goals are licit in Oehrle’s contexts which do not allow the prepositional construction in English and other languages:

(112) a. Le livre de Lipson a appris le Russe à Marie.
   ‘Lipson’s textbook taught Mary Russian.’
   b. ?Le fait de rencontrer Paul a donné mal de tête à Marie.34
   ‘Meeting Paul gave Mary a headache.’

Recall from Section 4 that se-goals are also permitted in these contexts (see examples (69)), a fact I proposed to interpret as an argument that they occur in the double object construction. This led me to conclude that sentences with se-goals are ambiguous between prepositional ditransitives and double object constructions. French a-goals can similarly be concluded to be ambiguous. In sentences like (112) they instantiate double object goals.

Turning to beneficiary constructions, and in particular to the alternation between (106b) and (107) repeated below, two criteria show that the a-beneficiary (106b) is a double object construction and the pour-construction (107) is the counterpart of Greek jia- and English for-beneficiaries.
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(106) b. Il a préparé un gâteau à la femme.
    he has made a cake a the woman
    ‘He has made a cake for the woman.’

(107) Il a préparé un gâteau pour la femme.
    he has made a cake for the woman
    ‘He has made a cake for the woman.’

(i) Recipient interpretation. As pointed out by Kayne (1975:137), (113a) below implies a direct connection between the subject and the a-beneficiary and is therefore appropriate only if the subject is the head of a huge family.\textsuperscript{35} On the other hand, (113b) with pour can be said in a situation in which the subject is merely thinking of the future, i.e. when there is no direct connection between the subject and the beneficiary.

(113) a. Il achète des jouets aux petits-fils de ses petits-fils.
    he buys some toys to the grandchildren of his grandchildren
    ‘He is buying toys for his grandchildren’s grandchildren.’

b. Il achète des jouets pour les petits-fils de ses petits-fils.
    He buys some toys to the grandchildren of his grandchildren
    ‘He is buying toys for his grandchildren’s grandchildren.’

The French alternation is characterized by the same meaning difference described in Section 2.2 above for Greek. A-beneficiaries have the same interpretation as genitive DPs in (34a) and se-PPs in (36), and pour-beneficiaries correspond to the jia-beneficiary in (34b). Recall that I take the meaning difference in (34), (36), (113) to derive from the fact that genitive-, se-, and a-beneficiaries are interpreted as recipients while jia-, for- and pour-beneficiaries denote individuals for the benefit of which some action happens.

(ii) Nominalizations. As shown in (114), a-beneficiaries are illicit in nominalizations. In contrast, pour-beneficiaries are well-formed:

(114) La préparation du repas pour/ à Marie.
    ‘The preparation of the meal for Marie.’

The contrast in (114) is entirely parallel to the one in (51), repeated here from Section 3.2, which shows that neither genitive nor se-beneficiaries are licit in Greek nominalizations while jia-beneficiaries are allowed.

(51) a. To majirema tu fajitu tis Marias.
    the cooking the food.gen the Mary.gen
    ‘The preparation of the food for Mary.’

b. To majirema tu fajitu sti Maria.
    the cooking the food.gen to-the Mary.acc
    ‘The preparation of the food to Mary.’

c. To majirema tu fajitu jia ti Maria.
    the cooking the food.gen for the Mary.acc
    ‘The preparation of the food for Mary.’
The ban on nominalizations with *a*-beneficiaries in French suggests that they are introduced by vAPPL, leading to the structural analysis in (115) which is identical to (52) proposed in Section 2 for *se*-beneficiaries:

(115)  
```
\[ v1P \\
  \quad \text{Subj} \\
  \quad v1' \\
  \quad vTR \\
  \quad v2P \\
  \quad à Marie v' \\
  \quad vAPPL \\
  \quad VP \\
  \quad V \quad \text{DP}_{\text{ACC}} \]
```

v2P cannot be the input to the formation of a root nominal, explaining the ungrammaticality of the *à Marie* version of (114). vAPPL assigns a recipient role to its specifier, explaining the interpretation of (113a). The *pour Marie* version of (114) is well-formed because *pour*-beneficiaries are adjuncts not introduced by vAPPL which is therefore not receiving a recipient role in (113b). *Pour* beneficiaries are adjuncts which share the same syntax as Greek *jia*-beneficiaries and English *for*-beneficiaries (see the discussion of structures (59), (63) and (64) in Section 2 above). The analysis predicts that *a*-beneficiaries are licensed with certain verb classes, unlike *pour* beneficiaries which can be added to virtually any predicate. I haven’t tested this prediction yet, but I would be surprised if it were incorrect.

Is the analysis of *a*-beneficiaries in terms of structure (115) corroborated by evidence from passives and binding? The answer to this question is not straightforward, as will be seen immediately, but the observed contrasts seem to indicate that the analysis is on the right track. More specifically, theme passives are worse in the presence of an *a*-beneficiary than with a *pour*-beneficiary, as illustrated by (116):

(116)  
a. ‘Un gâteau a été fait à Marie par Kyriakos.’  
‘A cake was made to Mary by Kyriakos.’

b. ‘Un gâteau a été fait pour Marie par Kyriakos.’  
‘A cake was made for Mary by Kyriakos.’

Interestingly, according to Dominique Sportiche (116a) is not entirely natural but improves if *Marie* is understood as adversely affected by the baking of the cake. Adversely affected genitives have also been seen to be legitimate in Greek passives; compare (116a) to (47), repeated here:
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(47) To fajito den *(tis) majireftice tis Marias kala (*apo the food.nom not cl.gen cooked.nact.3sg the Mary.gen well by ton Peter).

The meal was not cooked well by Mary and Mary was unhappy about it.

I would like to suggest that ‘à Marie in (116a) is not a true beneficiary but the French counterpart of tis Marias in (47) and that the applicative head vAPPL1 introducing beneficiaries cannot combine with a passive light v in French, as in Greek. vAPPL2 introducing adversely affected arguments is allowed to co-occur with a passive vINTR in both languages. The difference between French (116a) and Greek (47) is that the agent and the affected dative can be disjoint in reference in (116a), as shown by the fact that the agent can be overtly expressed in the par-phrase. In Greek, the affected dative is also interpreted as the agent and the by-phrase is ungrammatical. I take this contrast between the two languages to indicate that passive v-INTR and the vAPPL2 introducing malefactive datives are two separate syntactic heads in French; recall that they form a single syntactic unit in Greek.

Turning, finally, to evidence from binding, French permits both the a-beneficiary>theme and the theme>a-beneficiary permutation, similarly to Greek (see Section 2). Under structure (115) the a-beneficiary>theme permutation reflects the base order, in which the beneficiary asymmetrically c-commands the theme. The theme>a-beneficiary serialization derives either from (A or A’) scrambling of the theme across the beneficiary or from post-posing of the beneficiary to the right of the theme. Pronominal variable binding is accordingly expected to be perfect in the beneficiary>theme order, while it will be problematic in the alternative theme>beneficiary order, if this order is derived either by A’ scrambling or beneficiary-post-posing. And indeed, binding of the pronoun is easier in the beneficiary>theme permutation than in the theme>beneficiary permutation, as shown in (117):

(117) a. beneficiary>theme
   Marie a fait à chaque cuisinier un gâteau qu’il a inventé.
   Marie made to each cook a cake that he invented

b. theme>beneficiary
   *Kyriakos a fait chaque gâteau au cuisinier qui l’a inventé.
   Kyriakos made each cake for the cook who invented it

The contrast between (117a) and (117b) is not as sharp as would be expected under e.g. an A’ scrambling analysis of (117b), but is nevertheless present.

6.3 French ‘a’-datives are DPs and Greek ‘se’-datives are PPs

Section 6.2 established that French a-datives and Greek se-datives share the same syntax. As goals they are ambiguous occurring low as arguments of the root (prepositional ditransitives) or high as specifiers of vAPPL (double object constructions). As ben-
eficiaries they are specifiers of vAPPL. However, a-datives and se-datives also differ in important ways with respect to their categorial status and their interaction with cliticization (see also Anagnostopoulou 2003 for discussion). In this section, I will concentrate on the first difference. The second one will be taken up in the next subsection, which discusses more closely cliticization and clitic doubling of dative arguments.

One important difference between Greek and French manifests itself in the categorial status of the term introducing the dative argument. Even though it has been occasionally claimed that a is a preposition, Jeaggli (1982:28), drawing on Vergnaud (1974), presents convincing evidence that a is a case marker, not a true preposition. The arguments in support of this view are based on the behavior of a under co-ordination.

First, while a conjoined DP may serve as the complement of a preposition, illustrated in (118a), a DP-conjunct cannot combine with a, as exemplified by (118b). Instead, coordination must target two full a-phrases, as in (118c), suggesting that a-phrases are DPs:

(118) a. Ils se sont assis sur la table et les chaises.
   they cl.REFL are sat on the table and the chairs
   ‘They sat on the table and the chairs.’

b. *Ils ont parlé à Marie et le directeur.
   they have.3PL talked to Marie and the director
   ‘They talked to Mary and the director.’

c. Ils ont parlé à Marie et au directeur.
   they have.3PL talked to Marie and to-the director
   ‘They talked to Mary and to the director.’

A-goals and a-beneficiaries pattern with à Marie in (118b, c), as shown in (119):

(119) a. Il a donné un gâteau à la femme et au/ *le directeur.
   he has given a cake to the woman and to-the/ *the director.
   ‘He has given a cake to the woman and to the director.’

b. Il a préparé un gâteau à la femme et au/ *le directeur.
   he has made a cake to the woman and to-the/ *the director.
   ‘He has made a cake to the woman and to the director.’

Coordination of two a-phrases is obligatory in both (119a) and (119b) suggesting that a-datives are always DPs, regardless of whether they occur high (as beneficiaries or high goals) or low (as low goals).

Second, as illustrated by (120), coordinated PPs may not serve as the head of a relative clause which functions as a (derived) collective predicate:
(120) ‘Il a compté sur l’homme et sur la femme qui se sont rencontrés hier.’

As suggested to me by Winfried Lechner (personal communication), there are two potential explanations for the ungrammaticality of (120), both of which are reasonable.

(i) One possibility is that modification of a PP by a relative clause is not allowed, i.e. neither (121a) nor (121b) are possible parses for (120):

(121) a.  
```
PP  
PP et  PP  
       |  
PP sur l’homme   sur la femme  
       |  
       RC qui se sont rencontrés hier
```

b.  
```
PP  
PP et  PP  
       |  
PP sur l’homme   PP sur la femme  
       |  
       RC qui se sont rencontrés hier
```

The relative clause must therefore attach to the NP of the second conjunct, as in (122), barring a group reading of the head of the relative in terms of non-Boolean conjunction:

(122)  
```
PP  
PP et  PP  
       |  
PP sur l’homme   DP la  
       |  
       NP NP  
       |  
       femme qui se sont rencontrés hier
```
(ii) Alternatively, modification of the conjoined PP in (121a) is licit, but the conjunction of two PPs does not allow for a non-Boolean group reading, and structure (121a) is uninterpretable.

Co-ordinated a-phrases differ from ordinary PPs in that relative clause modification is well-formed, as shown by (123). Once again, the presence of a in the second conjunct of (123) is obligatory (compare (123) to (118c) above):

\[ (123) \text{Il a parlé à l’homme et * (à) la femme qui se sont rencontrés hier.} \]

‘He spoke to the man and the woman who met yesterday.’

A-goals and a-beneficiaries behave just like the coordinated single a-complements in (123) with respect to this diagnostic:

\[ (124) \text{Il a donné/préparé un gâteau à l’homme et * (à) la femme qui se sont rencontrés hier.} \]

‘He made a cake for the man and the woman who met yesterday.’

Thus, the contrast between (120) and (123), (124) provides the second argument that French a--phrases are DPs.

Applying Vergnaud’s tests to Greek reveals that Greek se – unlike French a – falls in the same group as prototypical prepositions: first, conjoined se-goals and se-beneficiaries can only marginally be assigned a group interpretation, as shown by (125a, b), (126a, b). Second, se can serve as the head of a conjunction of noun phrases (goals and beneficiaries), as in (125c), (126c):

\[ (125) \text{a. ??Estilan yramata ston anðra ce sti jineka pu zusan mazi.} \]

‘They sent the letters to the man and to the woman who were-living together.’

\[ (125) \text{b. Estilan yramata ston anðra ce ti jineka pu zusan mazi.} \]

‘They sent the letters to the man and the woman who were-living together.’
c. Estilan yramata stus yonis ce tus/stus papuðes ton sent.3PL letters.ACC to-the parents and the/to-the grandparents the endiaferomenon.
interested.GEN
‘They sent letters to the parents and (to the) grandparents of the interested party.’

(126) a. ??Eftiaksa kafe ston anðra ke sti jineka pu made.1SG coffee.ACC to-the man and to-the woman who protosinantiðikan xtes.
first met.3PL yesterday
‘I made coffee for the man and for the woman who met for the first time yesterday.’
b. Eftiaksa kafe ston anðra ke ti jineka pu made.1SG coffee.ACC to-the man and the woman who protosinantiðikan xtes.
first met.3PL yesterday
‘I made coffee for the man and the woman who met for the first time yesterday.’
c. Eftiaksa kafe sto Jiani ke ti/sti Maria made.1SG coffee.ACC to-the Giantis and the/to-the Maria
‘I made coffee for John and Mary/f for John and for Mary.’

To conclude, the diagnostics derived from co-ordination demonstrate that a-datives are DPs and se-datives are PPs. The fact that a-goals occur in prepositional ditransitives leads to the conclusion that not all indirect objects which surface as DPs need to be related to an applicative head. And conversely, the fact that se-goals and se-beneficiaries occur in double object constructions shows that indirect objects which have the catagorical status of PPs can be introduced by an applicative head. Unlike Japanese ni which is a preposition in low goal constructions and a case marker in high goal constructions, French a is always a case marker and Greek se always a preposition, regardless of whether the arguments they introduce occur high or low.

6.4 Cliticization and clitic doubling of datives

The second difference between se and a emerges in contexts of cliticization. In Greek, clitic doubling may affect indirect objects bearing genitive case, as in (127a), but it must not apply to goals which are introduced by se, as illustrated by (127b):

(127) a. Tu eðosa tu Jiani to vivlio.
cl.GEN gave.1SG the Jiani.GEN the book.ACC
‘I gave John the book.’
b. *Tu eðosa to vivlio sto Jiani.
   cl.gen gave.1sg the book.acc to-the Jiani
   ‘I gave the book to John.’

This restriction does not only hold of clitic doubling, but also discriminates between licit and illicit instances of Clitic Left Dislocation, as in (128), and (Clitic) Right Dislocation, as in (129):

(128) a. Tu Jiani tu eðosa to vivlio.
    the Jiani.gen cl.gen gave.1sg the book
    ‘To John I gave the book.’

(129) a. Tu eðose to vivlio i Maria # tu Jiani.
    cl.gen gave.3sg the book.acc the Mary.nom the Jiani.gen
    ‘It was Mary that gave him a book, to John.’

As will be seen immediately, French by and large limits cliticization to phrases headed by a (Kayne 1975:134–160; see in particular Kayne 1975:141–142 for a reanalysis of apparent dative cliticization with après, sur/dessus). In this respect, a-phrases behave similarly to Greek genitive DPs and differ from se-PPs (see Jeaggli 1982:29 for discussion of cliticization with à-datives in French).

French generally lacks clitic doubling (see e.g. Kayne 1975; Jeaggli 1982; Sportiche 1992, 1998 among many others). Thus, independent factors exclude the French counterpart of (127a). However, clitic doubling of personal pronouns is possible, as discussed in Kayne (2000), and doubling of a-dative personal pronouns is well-formed, as shown in (130a, b) (from Kayne 2000:165):

(130) a. Jean me parle à moi.
    Jean me speaks to me
    ‘Jean speaks to me.’

b. Jean lui parle à elle.
    Jean her speaks to her
    ‘Jean speaks to her.’

Moreover, there are other constructions in which dative clitics undergo chain formation. In these contexts, the foot of the chain must be occupied by an à-phrase. For one, in what Kayne (1975:138–139) calls the detachment construction (i.e. Right Dislocation), a dative clitic may form a chain with a right dislocated beneficiary or goal headed by a, as illustrated by (131). Detachment with a pour-beneficiary in (132), leads to ill-formed results.
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(131) a. On leur en construira, à tes amis.
   we CL.DAT CL.PART build.FUT, to your friends
   ‘We’ll build them some, your friends.’

   b. On leur en donnera, à tes amis.
   we CL.DAT CL.PART give.FUT, to your friends
   ‘We’ll give them some, your friends.’

(132) a. *On leur en construira, pour tes amis.
   we CL.DAT CL.PART build.FUT, for your friends
   ‘We’ll build some for your friends.’

   b. *Cela leur est pénible, pour ces enfants.
      this CL.DAT is painful, for those children
      ‘This is painful for those children.’

Another instance of chain formation of a dative clitic with an à-phrase involves stranded quantifiers. As exemplified by the contrast between (133a) and (133b) (Kayne 1975:136), dative clitics may associate with quantifiers introduced by à, but not with quantifiers introduced by pour:

(133) a. Elle leur a souri à tous.
   she CL.DAT has smiled to all
   ‘She smiled at all of them.’

   b. *Il leur en a construit pour tous les deux.
      he CL.DAT CL.PART has built for both of them
      ‘He built some for both of them.’

In sum, the cross-linguistic comparison between French and Greek shows that French à-datives exhibit hybrid characteristics. The majority of the diagnostics suggest that à-datives share the syntax of Greek se-datives. But it was also seen that two phenomena, co-ordination and cliticization, group à-phrases together with Greek genitive DPs. The evidence based on co-ordination presented in the preceding section convincingly demonstrates that French à-datives are DPs and Greek se-datives PPs. The question that arises now is whether the (un-)availability of clitic doubling and cliticization constitute further diagnostics for categorial status. Under the hypothesis that only DPs are allowed to undergo chain formation with clitics it would be immediately explained why cliticization and clitic doubling are precluded with se-PPs in Greek and are licit with à-DPs in French and genitive DPs in Greek.

In order for the above hypothesis to receive support it would have to be demonstrated for all clitic languages that pronominal clitics form chains with categories that can be independently argued to be DPs on the basis of evidence like e.g. Q-float or co-ordination. Spanish shows that this is incorrect. As will be discussed immediately, dative arguments introduced by a undergo clitic doubling in Spanish, similarly to Greek genitive DPs and unlike se-PPs. Spanish double object constructions show obligatory clitic doubling of à-datives, unlike Greek genitive double object constructions which show optional clitic doubling. And yet, Spanish clitic doubled à-datives qualify
as PPs on the basis of the co-ordination tests discussed above, similarly to se-PPs and unlike genitive DPs in Greek or a-DPs in French.

In the literature on Spanish there is a growing consensus that the double object construction is signaled by the obligatory presence of dative clitics. Demonte (1995), Torrego (1998), Bleam (1999), Ormazabal and Romero (2001), Cuervo (2003) and others point out that the presence vs. absence of dative clitics in goal ditransitives correlates with a number of syntactic and semantic phenomena characterizing the dative alternation in English (cf. Uriagereka 1988 on similar asymmetries in Galician). In particular, Spanish ditransitives with clitic doubled a-goals pattern with English double object constructions, while their counterparts without clitic doubling show properties of prepositional ditransitives. For one, animate goals can be doubled while locative goals cannot (see Bleam 1999; Ormazabal & Romero 2001; Cuervo 2003):

(134) Andrea le cl dat envió un dicionario a Gabi/ *a Barcelona.

Andrea<br> sent<br> a<br> dictionary to<br> Gabi/ 'Andrea sent Gabi/ *Barcelona a dictionary.'

Animate and locative datives may equally occur undoubled, as in prepositional ditransitives which do not discriminate between animate and inanimate goals:

(135) Andrea envió un dicionario a Gabi/ a Barcelona.

Andrea<br> sent<br> a<br> dictionary to<br> Gabi/ to<br> Barcelona

'Andrea sent Gabi/ *Barcelona a dictionary.'

Clitics are allowed to double inanimate dative goals only when the goal and the theme stand in a part-whole relationship. In (136a) below el mantel can be construed as a part of a la mesa, and doubling is licit. In (136b) los platos cannot be construed as a part of a la mesa, and doubling is ruled out. This restriction is similar to the one attested in English, where the double object construction is licensed only when the indirect object can be understood as a possessor of the direct object (see Demonte 1995):

(136) a. Le cl dat puse el mantel a la mesa.

Le<br> put.1sg<br> the<br> tablecloth to<br> the<br> table

'I put the tablecloth on the table.'

b. *Le cl dat puse los platos a la mesa.

Le<br> put.1sg<br> the-dishes to<br> the<br> table

'I put the dishes on the table.'

Furthermore, datives are permitted exclusively under clitic doubling in Oehrle's environments (Demonte 1995; Bleam 1999; Cuervo 2003; data from Cuervo 2003):

(137) a. *El viaje a Troncoso ofreció a Maria la oportunidad de practicar portugués.

El<br> the<trip<br> to<br> Troncoso offered<br> to<br> Maria the opportunity to practice<br> Portuguese
‘The trip to Troncoso offered an opportunity to practice Portuguese to Maria.’

b. El viaje a Troncoso le ofreció a María la oportunidad de practicar portugués.
‘The trip to Troncoso offered Mary the opportunity to practice Portuguese.’

Recall that only the double object construction is licit in these contexts.

Binding provides syntactic evidence that the clitic doubling construction is a double object construction. In the absence of a dative clitic, a direct object can bind a reflexive indirect object while the reverse is not possible, as shown in (138). When a dative clitic is present, the indirect object can bind into the direct object while the reverse is impossible, as shown in (139):

(138) a. El tratamiento psicoanalítico reintegró a María a sí misma.
    ‘The psychoanalytic therapy gave back Mary to herself.’

b. *El tratamiento psicoanalítico devolvió (a) sí misma a María.
    ‘The psychoanalytic therapy gave back herself to Mary.’

(139) a. *El tratamiento psicoanalítico le devolvió a María a la estima de sí misma.
    ‘The psychoanalytic therapy gave back her self-esteem to Mary.’

b. El tratamiento psicoanalítico le devolvió a la estima de sí misma a María.
    ‘The psychoanalytic therapy gave back Mary her self-esteem.’

A-beneficiaries undergo clitic doubling obligatorily, as shown in (140) (Demonte 1995:7, fn. 5; Cuervo 2003; Josep Quer, personal communication):

(140) *(Le) cociné el pollo a Mario.
    ‘I cooked Mario the chicken.’

The obligatoriness of clitic doubling in (140) entails that beneficiaries introduced by a are necessarily arguments of vAPPL in Spanish, just like Greek se-beneficiaries and French a-beneficiaries. The clitic doubling construction alternates with the preposi-
tional construction in (141) where the beneficiary argument is introduced by para ‘for’ (Demonte 1995:7):

(141) Cociné el pollo para Mario.
  cooked.1sg the chicken for Mario
  ‘I cooked the chicken for Mario.’

The alternation between the clitic doubled a-beneficiary in (140) and the para-beneficiary in (141) shows characteristics that are similar to the properties displayed by the alternation between genitive and se- vs. jia-beneficiaries in Greek and a- vs. pour-beneficiaries in French:

(i) A-beneficiaries are impossible in nominalizations while para-beneficiaries are well-formed (Josep Quer, personal communication):

(142) a. La preparación del pastel para María.
    the baking of the cake for Maria/ of María
  ‘The preparation of a cake for Maria.’

b. La construcción de un gran palacio para Luis de Baviera.
  the building of a big palace for Ludwig of Bavaria
  ‘The building of a big palace for Ludwig.’

c. La preparación de una fiesta sorpresa para el director.
  the preparation of a surprise party for the director
  ‘The preparation of a surprise party for the director.’

(ii) Clitic doubled a-beneficiaries are impossible in passives, just like genitive and se-beneficiaries in Greek. The data illustrating this are repeated here from Section 2:

(48) b. *La casa le fue pintada a Juan anteayer.
     the house cl.dat was painted to Juan the day before yesterday

Para-beneficiaries are well-formed, similarly to jia-beneficiaries (Josep Quer, personal communication):

(143) Este pastel ha sido preparado para Juan.
     this cake has been prepared for Juan

(iii) Like pour-beneficiaries in French, Spanish para-beneficiaries are not allowed to form an (A or A’) chain with a clitic. (144a) illustrates this with an example of right dislocation. Right dislocation of an a-beneficiary is well-formed in Spanish, just as in French (see (144b), data provided by Josep Quer, personal communication):

(144) a. *Les prepararán algunos, para tus amigos.
    cl.dat prepare.fut.3sg some, to your friends

b. Les prepararán algunos, a tus amigos.
    cl.dat prepare.fut.3sg some, to your friends

In the literature on Spanish it is commonly assumed that a-datives are PPs when they occur undoubled and DPs when they undergo clitic doubling (see e.g. Demonte 1995;
Bleam 1999; Cuervo 2003). There are two reasons for this claim. First, PPs generally do not undergo clitic doubling in Spanish; if doubled a-datives are PPs, then they are the only ones to permit doubling. Second, as has been seen above, there is ample evidence that undoubled a-goals occur in prepositional ditransitives while constructions with doubled a-goals and a-beneficiaries are double object constructions. The view that the former arguments are PPs and the latter DPs fits the standard picture of the ‘dative alternation’ as an alternation in category (‘oblique’ PP vs. ‘structural or semi-structural’ DP). But the discussion of Greek and French in the preceding sections has shown that there is empirical evidence against the second argument. The first argument in itself is weak, as the unavailability of doubling with all other PPs could derive from independent factors.38 It is therefore important to examine how clitic doubled a-datives fare with respect to the co-ordination tests discussed in the preceding section.

As pointed out by Jeaggli (1982:32), the evidence from co-ordination classifies Spanish a-datives as PPs. Unlike French a, Spanish a may take the conjunction of DPs as its complement. Jeaggli’s original examples are provided in (145):

(145) a. Les compraron una casa a María y el director.
   cl.dat bought.3pl a house for María and the director
   ‘They bought a house for María and the director.’

b. Les mandaron cartas a los padres y los abuelos del interesado.
   cl.dat sent.3pl letters to the parents and the grandparents
   of the interested party.
   ‘They sent cards to the parents and the grandparents of the interested party.’

Two more examples, one with an optionally doubled goal and one with an obligatory doubled beneficiary, are given in (146) (Josep Quer, personal communication). They show that co-ordination can take place either at the DP level or at the PP level, as is always the case with PPs (see (147):

(146) a. Juan (les) regaló un retrato al rey y (a) la reina.
   cl.dat gave a portrait a-the king and a the queen
   ‘Juan gave a portrait to the king and (to) the queen.’

b. Juan les pintó un retrato al rey y (a) la reina.
   cl.dat painted a portrait a-the king and a the queen
   ‘Juan painted a portrait for the king and (for) the queen.’

(147) a. Hablaron con María y el director.
   talked.3pl with María and the director
   ‘They talked with María and the director.’

b. Hablaron con María y con el director.
   talked.3pl with María and with the director
   ‘They talked with María and with the director.’
Jeaggli did not discuss the behavior of co-ordinated Spanish a-datives when these are modified by a relative clause. As pointed out to me by Josep Quer (personal communication), repetition of a is optional in these constructions, similarly to (146) and (147) above. Judgments appear to be subject to dialectal variation: some speakers prefer co-ordination of two a-datives when these are modified by a relative clause while for others repetition of a is entirely optional. Interestingly, when the predicate in the relative clause is collective, as in (148), forcing a group reading of the head of the relative, the speakers that prefer the conjunction of two a-datives find it quite natural not to repeat a in the second conjunct:

(148) a. Les clé preparé café al chico y ala chica que se conocieron ayer.
   cl.dat prepared.1sg coffee to-the boy and to the girl that
   refl met yesterday
   ‘I prepared coffee for the boy and the girl who met yesterday.’

b. (Les) han enviado una carta al chico y ala chica que se conocieron ayer.
   that cl.refl met yesterday
   ‘They sent a letter to the boy and the girl who met yesterday.’

Recall that co-ordination of two a-datives is obligatory in comparable French examples (see (124)) while co-ordinated se-datives resist a group interpretation in the Greek counterparts of (148) (see (125a vs. b) and (126a vs. b) above). Spanish appears to be in between French and Greek: repetition is neither obligatory, as in French, nor dispreferred, as in Greek. The fact that co-ordination of two a-datives in these environments is optional, though, as well as the fact that the preference for repetition of a is relaxed in the presence of a collective predicate in the relative suggest that Spanish a is closer to Greek se than to French a, providing one more piece of evidence that a preposition rather than a case marker. And yet, a-PPs are allowed to form chains with pronominal clitics in Spanish, unlike Greek se-PPs which are not allowed to form chains with clitics patterning, in this respect, with jia-, para- and pour-beneficiaries. I therefore conclude that the DP vs. PP status of dative arguments cannot be determined on the basis of chain formation with a clitic, contrary to what is often assumed in the literature on Spanish.

Before closing this section, a final remark on the cross-linguistic distribution of clitic doubling is worthwhile mentioning. As is well known, clitic doubling is attested to varying extents in Spanish and Romanian, while it is absent in French, except for the personal pronoun cases discussed in Kayne (2000; see examples (130) above). In the GB literature it was widely assumed that the property that regulates the cross-linguistic distribution of doubling is Kayne’s Generalization: an object NP may undergo doubling only if it is preceded by a special preposition. In order to account for Kayne’s Generalization, Jeaggli (1982) proposed that clitics absorb government of the verb (a special kind of government called “subcategorization-government”). As a result, when
an overt NP occurs in object position, it cannot receive Case, which must be assigned under government. Therefore, clitic doubling is ruled out as a violation of the Case Filter, unless a preposition is present, which can assign Case to the NP. On the basis of the evidence from co-ordination also discussed here, Jeaggli argued that dative clitic doubling is licit in Spanish because a is a true preposition which can license the doubled NP for Case. It is illicit in French because a is a case marker which realizes dative case rather than assigning it to the dative NP. The evidence from Greek discussed in the present paper clearly shows that this line of argument is incorrect. In Greek, clitic doubling is licit with genitive arguments which are DPs and illicit with se-datives which are PPs.

In conclusion, the complex patterning of Spanish a-PPs, French a-DPs, Greek se-PPs and genitive DPs with respect to cliticization and clitic doubling shows that it is incorrect to appeal to the category of the associate in order to explain the cross-linguistic distribution of clitic doubling. I will have to leave the exploration of ramifications of this result to further research.

7. Concluding remarks

This paper took as a starting point the observation that Greek Beneficiary arguments have three alternative realizations. An attempt was made to place these constructions within the broader typology of ditransitives. The investigation focused in particular on beneficiaries introduced by the prepositional element se which were compared and contrasted to goals surfacing with se in Greek as well as dative arguments introduced by comparable prepositions in English, Japanese, French and Spanish.

In the first part of the paper I argued that dative arguments introduced by se occur in double object beneficiary and goal constructions and in prepositional goal ditransitives, unlike to in English which is limited to prepositional goal constructions. I linked this cross-linguistic difference to the contrasting semantic properties of se and to with respect to the feature DIRECTION/PATH and the (possibly related) function of resultativity.

In the second part of the paper, I compared se-datives to a-datives in French and Spanish. The meaning, distribution and syntactic properties of a-datives in French were argued to be very similar those displayed by se-datives, except that the former behave like DPs and the latter like PPs under co-ordination. This led me to conclude that the category of indirect objects is orthogonal to their distribution in ditransitives. Indirect object DPs may occur in so called ‘prepositional ditransitives’ and, conversely, indirect object PPs are allowed to surface in double object constructions. It is therefore incorrect to think of the ‘dative alternation’ in terms of alternative categorical realizations of indirect object arguments. The crucial property is the association of indirect objects with extra functional structure (i.e. light applicative heads) in the double object construction. This structure is missing in so called ‘prepositional ditransitives’ where indirect objects are introduced at the root level.
A further difference between Greek se-datives and French a-datives manifests itself in their behavior under cliticization, clitic doubling and other instances of chain formation with dative clitics. Se-datives do not form dependencies with clitics, while a-datives do. The question I investigated is whether this difference can be derived from the hypothesis that PPs prohibit and DPs permit chain formation with clitics. As it turned out, the answer to this question is negative. Spanish provides crucial evidence for this. Indirect objects introduced by a undergo obligatory clitic doubling in Spanish double object constructions, and yet they act like PPs under co-ordination. This led me to conclude that the category of indirect objects is not the crucial factor that determines the well-formedness of clitic dependencies. Which property underlies the parametric (un-)availability of clitic doubling and other clitic dependencies remains an open question.

Notes

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1. There are important differences between Greek se and English to discussed in detail in Section 4.
2. In Greek, both possession and affectedness seem to be relevant notions.
3. As discussed in Anagnostopoulou (1999a, b, 2003), the ban against genitive DPs in passives is obviated when the genitive undergoes cliticization or clitic doubling. This fact will generally not concern me here. I will return to this, though, in Section 2.2.
4. Note that the English nominalizations in (11) and (12) are transitive nominalizations while the Greek ones in (10) have the appearance of passive nominalizations in which the agent surfaces as a by-phrase. As discussed at great length in Alexiadou (2001), Greek lacks transitive nominalizations. Alexiadou (2001) furthermore argues that the Greek nominalizations in (10) are not the counterpart of English passive nominalizations but rather of English transitive ones.
5. An anonymous reviewer points out that leftward A-bar scrambling, in itself, does not explain the lack of quantifier binding, since A’ movement can feed quantifier binding in other contexts:

(i) a. *The other’s child hated each mother.
   b. Each mother, the other’s child hated.

[The reviewer is not sure (b) is perfect, but he is confident it’s better than (a).]

An alternative way of looking at things, according to the reviewer, would derive the ACC-GEN word order not by ACC-preposing but by GEN-postposing. The latter adjoins GEN to VP, which is higher than ACC, explaining the effect in (15).
The alternative explanation suggested by the reviewer does not affect my analysis of the genitive goal construction in (13).

6. Another anonymous reviewer questions the validity of the explanation offered in the main text (or, for that matter, in fn 6) for the ungrammaticality of (15), by pointing out that s/he finds (i) as unacceptable as (15):

(i) Estila sent the child to his/her mother.

I disagree with the reviewer's judgments. I find (i) significantly better than (15).

7. Winfried Lechner (personal communication) points out that scope might help us decide the base order among goals and themes if Greek turns out to be like other scrambling languages, e.g. German, Japanese, where base orders are unambiguous and derived orders show scope ambiguity (see Lechner 1998 for discussion and references). I leave this issue for future research.

8. An anonymous reviewer takes as a starting point the view that head movement extends minimal domains (Chomsky 1993; Bobaljik & Jonas 1996, among others) and asks why verb movement in (25) does not make the Theme and DP\_GEN equidistant from T. Following Chomsky (1995), Collins (1997), Richards (1997), Anagnostopoulou (2003), among others, I assume that minimal domains are defined over trivial (i.e. single-membered) head chains, and that head movement does not extend minimal domains. Since the main empirical motivation for linking verb movement to equidistance comes from Holmberg's Generalization (HG 1986) effects on Object Shift, the position I am taking here entails that I do not assume that HG effects should be tied to minimal domains and equidistance (see Bobaljik 2002; Holmberg 1999; Fox & Pesetsky 2002 for alternative accounts of HG effects not relying on equidistance; see Anagnostopoulou 2002 for critical discussion).

9. See Kayne (1984) and Beck and Johnson (2004) for an alternative account which takes the ungrammaticality of (11) to derive from a structure in which double object verbs take a small clause complement with the goal/beneficiary DP as the small clause subject. On this account, the restriction in (11) is treated on a par with the ungrammaticality of examples like *the belief of John handsome which show that nominalizations are not possible if the object of the verb is not its logical object, i.e. its argument. The evidence presented in the present paper, though, shows that indirect objects in Greek double object constructions do not have to be DPs and can also be PPs. This is unexpected in a small clause analysis of the double object construction (small clause subjects are DPs and not PPs), while it is not incompatible with the applicative analysis, which does not a priori impose a restriction on the categorial status of applied arguments.

10. Marantz (1993) extends Pesetsky's (1995) account of nominalizations to synthetic compounding in adjectival passives. He points out that while predicates with two internal arguments form adjectival passives involving synthetic compounding, as illustrated in (i), double object verbs do not permit this kind of adjectival passive formation. It is neither possible for the goal argument to combine with the verb excluding the theme, as illustrated in (ii-a), nor is it possible for the theme argument to combine with the verb, excluding the goal, as in (ii-b):

(i) a. hand-made cookies instrument
d. paint-sprayed cart theme
e. clean-shaven face result
Variation of datives

(ii) a. *boss-given flowers goal
    b. *flower-given boss theme

Marantz proposes that the ungrammaticality of (iib) is due to a violation of Myers’s Generalization.

11. Pesetsky (1995) assumes that the zero head present in the double object construction is a null preposition introducing the theme rather than a null verb introducing the goal. See Anagnostopoulou (2003:51–73) for arguments against Pesetsky’s analysis of the double object construction.

12. According to Marantz (1997) only -ing nominalizations are true nominalizations in the sense of embedding a verbal construction into a nominal one.

13. The restriction against nominalizations of verbs selecting for small clause complements (see Note 10) can, perhaps, be subsumed under Marantz’s (1997) proposal that deverbal nominals can only be based on roots, if subjects of small clause complements are taken to require the presence of a Case-checking verbal head in order for their subject to be licensed.

14. While nominalizations in which the goal surfaces as the non-prepositional complement of the noun are never possible with the verbs forming the Genitive Construction (see (10) above as well as (i) below), they are possible with the verbs forming the Double Accusative Construction (see (5c) above), as shown in (ii):

(i) a. To xarisma enos vivliu/ το xarisma enos peðiu.
      the gift of a book/ το xarisma του κοιτίτη.
     a. the gift of a child (i.e. to a child)
      b. the rental of the house/ το τοποτιτηριον
       the rental of a student (i.e. to a student)

(ii) a. I didaskalia ton mathimatikon/ I didaskalia ton
      the teaching of math/ the teaching of the
       children (i.e. to the children)
      b. I taktici pliromi ton logarismon/ I taktici pliromi ton
       the regular payment of the bills/ the regular payment of the
       employees (i.e. to the employees)
      c. To griýo servizizma tu fajitu/ to griýo servizizma tu
       the fast serving of the food/ the fast serving of the
       customer (i.e. to the customer)

In Anagnostopoulou (2001) I argue that the above contrast can be accounted for if the goal in the Genitive construction is introduced by vAPPL while the goal in the Double Accusative construction is introduced at the root-level.

15. See Demonte (1995), Bleam (1999), Ormazabal and Romero (2001), Anagnostopoulou (2003), Cuervo (2003) for arguments that the Spanish goal construction without doubling is a prepositional goal ditransitive and the one with doubling a double object construction. I will come back to this in Section 5.

16. Josep Quer points out that beneficiaries are only licensed in impersonal passives in Spanish:
(i) Se *(le) preparó un gran pastel a María.
'A big cake has been made for Maria.'

This probably provides the key to the understanding of the ban against beneficiaries in personal passives, but I am currently not in a position to uncover its significance. Perhaps this fact is related to the Greek facts in (47).

17. As noted by Markantonatou (1994) and Anagnostopoulou (2003) indefinite, and quantification- genitive indirect objects are marginal in Greek. Abstracting away from this, the reciprocal interpretation in (53a) is possible.

18. This construction has not been studied in the literature. One property it shares with do so ellipsis is that it is licensed only with eventive predicates:

(i) *O Petros έγνω και Μαρία έγνω λαν συζευκτάρια.
the Peter know.3sg French and the Mary do.3sg the same
"Peter knows French and Mary does so too.'

Another property the two constructions have in common is that they do not permit Antecedent Contained Deletion:

(ii) *O Petros συναντήσε τον άνδρα ότι Μαρία έγνω λαν συζευκτάρια.
the Peter met.3sg the man that Mary did.3sg the same
"Peter met the man that Mary did so too.'

19. See Beck and Johnson (2004) for an argument based on repetitive vs. restitutive Again (see Section 3) that for-beneficiaries in English have the structure in (64). If it turns out that (64) is the correct structure for Greek as well, then it must be assumed that the subject position contains a trace of the raised subject (or a null resumptive pro connected to a clitic left dislocated subject; see Alexiadou & Anagnostopoulou 1998).

20. In English, for-beneficiaryconstructions behave similarly to-goal constructions with respect to Barss and Lasnik's tests, i.e. precedence matches c-command, as shown in (i-a, b). As pointed out to me by Orin Percus, though, for-beneficiaryconstructions in English do not permit (backward) co-reference, as shown in (i-c), for unclear reasons:

(i) a. John designed every house for its future owner.
b. *John designed his house for every client.
c. *John built her house for Mary.

The awkwardness of (ic) constitutes an additional complication for the analysis of prepositional beneficiary constructions, which cannot be fully assimilated to prepositional goal constructions where backward coreference is licit and backward binding not:

b. John returned her book to Mary.

Note that the same contrast obtains in Greek:

(iii) a. *O Petros εκτύμησε το σπίτι της στην Μαρία.
the Peter built.3sg the house her for Mary
b. *O Petros επέστρεψε το βιβλίο της στην Μαρία.
the Peter returned.3sg the book her to Mary

I leave this issue open for further research.
21. In the typological literature (Talmy 1985) languages are divided into two main categories. 
(a) Those that express the distinction between direction and pure location by verbs and prepo-
sitions. (b) Those that express the distinction between direction and pure location only by the 
verb. English is taken to belong to category (a) and Spanish to category (b). Unlike Ancient 
Greek which fell under category (a), Modern Greek belongs to category (b), i.e. locative prepo-
sitions generally do not lexicalize the distinction between motion and pure location, which is 
expressed exclusively by verbs (see Scopeteas 2003 for discussion of the history of Greek locative 
prepositions).
22. These prepositions also have a temporal use corresponding to English until.
23. According to Pesetsky, condition (76) also explains why the preposition at used to express 
approximation to a goal is compatible with verbs denoting "instantaneous causation of ballistic 
motion" and incompatible with verbs of "continuous causation of accompanied motion in some 
manner", as shown by the data in (i) and (ii), respectively (Pesetsky's examples (373), (374)):

(i) a. Mary threw the book at John.
b. Mary flung the package at Sue.
c. Mary kicked the ball at John.
d. John flicked the coin at her.

(ii) a. *Mary pulled the trunk at Sue.
b. *Mary pushed the boulder at John.
c. *Mary dragged the sack at Bill.
d. *Mary schlepped the box at John.

The Greek counterparts of the sentences in (ii) employing the preposition pros 'towards' which 
expresses approximation to a goal are grammatical (see Anagnostopoulou 2003).
24. Beck and Snyder (2001) point out that from the languages they discuss the only one that 
shows a mixed behavior with respect to their diagnostics is Japanese. Greek also shows a mixed 
behavior.
25. Though see Horrocks and Stavrou (2003) who argue that the adjectives here are more like 
modifiers of the resultant state, which is lexically encoded in the verb itself, they do not denote 
the result state; thus, they are like depictive adjectives.
26. Note that the telicity shift in (88) provides an argument for the view that the non-
directionality of se prevents it from making the predicate telic but does not, in itself, argue 
against the view that Greek has a negative setting of Beck and Snyder's (2001) parameter. Cru-
ially, the restitutive reading of again (Greek 'ksana') is impossible in the presence of a mexri 
and pos-PP suggesting that the accomplishment reading in (88) is not created by the principle of 
27. The unacceptable examples in (89) become acceptable if either an implicit goal argument 
is postulated (which is not necessary; the implicit goal is optional) or under an interpretation like "it took me two minutes to be able to start pushing/moving the cart". The unacceptable 
interpretations in (90) become acceptable if the for-PP is taken to modify the reversible end-
state (the target state see Parsons 1990; Kratzer 2000) of the event expressed by the predicate, 
for example if the person receiving the fax may only keep it for two minutes, or if I will get my 
house back after a month.
28. The issue requires further investigation, though, because, to the extent that I have checked, 
it seems that restitutive readings of ksana 'again' are possible in Greek prepositional ditransitives
with se-goals. If true, this would suggest that se-goals are sometimes resultative and sometimes not, i.e. that they denote result states with verbs like give, send, drag but not with push, pull or lower.

29. Beneficiaries surface with a different postposition (Shigeru Miyagawa, personal communication), and will not be discussed here.

30. Since inanimate goals are generally not licensed in the double object construction, they are always PPs, even when they precede themes, as in (98b). As discussed by Miyagawa and Tsujioka, low PP-goals are allowed to precede or follow themes, unlike high DP goals which prevent themes from moving across them.

31. Japanese datives can become nominative under passivization acting as if they have purely structural Case, unlike e.g. Greek genitives and Icelandic datives (see Larson 1988; Ura 1996; Anagnostopoulou 2003 for discussion).

32. If the proposal put forth in Section 4 to analyze ditransitives with verbs of continuous imparting of force on a par with examples like (104) and (105) is correct, then such predicates are predicted to qualify as atelic in French. I haven't tested this prediction.

33. See McGinnis (1998) and Anagnostopoulou (2003) for evidence that Greek se-datives and French a-datives block NP-movement when they are higher and in a different minimal domain than the moved element. Specifically, a-datives and se-datives are illicit when they realize experiencers in raising contexts because they belong in the minimal domain of the matrix V seem and raising takes place from the embedded clause-violating locality. The blocking effect of a-experiencers is obviated under cliticization of the intervener in French as in Greek.

34. According to Dominique Sportiche, there is a slight contrast between (112b) and its counterpart with the dative clitic in (i), which is perfect:

(i) Le fait de rencontrer Paul lui a donné mal de tête.
‘Meeting Paul gave her a headache.’

In Anagnostopoulou (1999b) I noticed a similar contrast in Greek. When the goal is realized as a genitive DP and the subject is a non-volitional causer there is a preference for cliticization or clitic doubling of the genitive, for unclear reasons.

35. For Dominique Sportiche (113a) is out, presumably because such a scenario is too far-fetched.

36. The fact that (117b) is basically ok suggests that the theme>beneficiary order is derived by A-movement of the theme over the beneficiary. As extensively discussed in Anagnostopoulou (2002, 2003) so-called "symmetric double object languages" show a correlation between the availability of direct object>indirect object orders in transitive sentences and the grammaticality of theme passivization across a higher intervening indirect object in passives. This correlation can be accounted for if it is assumed that in symmetric double object languages vAPPL licenses a secondary specifier which functions as an escape hatch for further A-movement (object shift, passivization, A-scrambling) of the direct object across the indirect object (the specifier to vAPPL parameter). The fact that (i) the theme undergoes A movement across the beneficiary in (117b) and (ii) theme passivization across an adversely affected dative in (116a) is well-formed suggests that French behaves like a symmetric double object language with respect to the specifier to vAPPL parameter.

37. Dominique Sportiche points out that (132a) is ok with the beneficiary pour-phrase unrelated to the clitic. In (132b) the pour-phrase would be interpreted as "according to these children".
Similarly, (133b) below is grammatical on a reading according to which the pour-phrase is not related to the clitic.

38. For example, it could be suggested that only a-PPs are allowed to form double object constructions, which in Spanish necessitate the presence of a doubling clitic (see Demonte 1995; Torrego 1998; Bleam 1999; Cuervo 2003 for some explanations of the requirement for doubling in the Spanish double object construction). The reasons for that could be similar to the ones discussed in Section 4 for Greek se and French a, though there is a complication, namely that a-phrases in Spanish do not denote pure location, i.e. they are not allowed as complements of ‘live’ or ‘stay’ (Josep Quer, personal communication).

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