(Mis)Matches in Greek Free Relatives[*]

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1 Introduction

In this paper, I deal both descriptively and theoretically with the range of mis-matches observed in Greek Free Relatives (FR). At an empirical level, I show that whereas mis-matches in phi-features give rise to irredeemable ungrammaticality, mis-matches in (morphological) case can be acceptable under certain, well-defined conditions. At a theoretical level, I identify the problems that the observed patterns pose for our theory of case valuation and A' movement and I suggest a solution which builds on the KP hypothesis (Lamontagne and Travis 1987).

2 Identifying the Patterns

Greek FRs are introduced by *ópjos(ðípote)* 'who(ever)' and *óti(ðípote)* 'what(ever)', two pronouns, which consist of the interrogative pronominals *pjos* 'who'/ *ti* 'what' and the determiner like morpheme *o-* (on the origin of *o-,* see Chila-Markopoulou 1991 and references, therein). Morphologically, *óti* shows no nominal inflection, whereas *ópjos* follows the Greek nominal paradigm in being inflected for gender, number, and case (see Table 1). Syntactically, both *ópjos* and *óti* display the distribution of D-type pronouns: they are incompatible with determiners, see example (1), and they are compatible with NP complements, see example (2).[1] Therefore, they are best treated as *wh*-determiners with overt or elided NPs.

	Singular			**Plural**		
	Masc	**Fem**	**Neut**	**Masc**	**Fem**	**Neut**
Nom	*ópjos*	*ópja*	*ópjo*	*ópji*	*ópjes*	*ópja*
Acc	*ópjon*	*ópja(n)*	*ópjo*	*ópjus*	*ópjes*	*ópja*
Gen	*ópju/(opjanú)*	*ópjas/(opjanís)*	*ópju*	*ópjon/(opjanón)*	*ópjon/(opjanón)*	*ópjon*

Table 1. The Morphological Paradigm of the FR Pronoun *ópjos-a-o* 'who(ever)'

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[1] When *opjosðípote* is used as a Free Choice Item, it can be preceded by a determiner (Giannakidou 2001). I am abstracting away from those uses.

(1) a. Efχarístisa   (*tus)   ópjus   me   voíθisan.
    thanked-1SG   (*the)   who-3 PL.M.ACC   cl-ACC.1SG   helped-3PL
    'I thanked (*the) whoever helped me.'

   b. Ðjálekse   (*to)   óti   su   arési.
    choose-2 SG.IMP   (*the)   what   cl-GEN.2SG   like-3SG
    'Choose (*the) whatever you like.'

(2) a. Efχarístisa   ópjus   maθités   me   voíθisan.
    thanked-1SG   who-3PL.M.ACC   students   cl-ACC.1SG   helped-3PL
    'I thanked whoever helped me.'

   b. Ðjálekse   óti   χróma   su   arési.
    choose-2SG.IMP   what   colour   cl-GEN.2SG   like-3SG
    'Choose whatever colour you like.'

In what follows I focus on the inflected *ópjos,* and I examine its behavior both in matching contexts, i.e. when the External (matrix) and the Internal (relative) predicate have identical case/phi specifications and in mismatching contexts, i.e. when the competing predicates differ as to their case/phi specifications. Regarding terminology, I use the term "E-(xternal)-Matching" for agreement with the E-(xternal) Predicate and "I-(nternal) Matching" for agreement with the I-(nternal) Predicate.[2]

2.1 Case

The most well examined instance of (mis)matching in Greek FRs, concerns morphological case (see Stavrou and Philippaki 1987; Chila-Markopoulou 1991; Philippaki and Spyropoulos 1997; Alexiadou and Varlokosta 2007; Spyropoulos 2007; Daskalaki 2007, 2008; Vogel 2001). Two main patterns can be distinguished: When the External and the Internal Predicate have identical case requirements, the FR phrase may realize the morphological case required by both of them, and FR clause formation is straightforward. This is shown in (3), for accusative, nominative, and genitive, respectively.

(3) a. *Kálesa   ópjus   íða.*
    invited-1SG   who-ACC   saw-1SG
   'I invited whoever I saw.'

   b. *θa   se   voiθísi   ópjos   se   aγapá*
    FUTM   cl-ACC.2SG   help-3SG   who-NOM   cl-ACC.2SG   love-3SG
   'Whoever loves you will help you.'

   c. ?*Tilefónisa   ópju   íχa   ðósi   leftá.*
    phoned-1SG   who-GEN   had-1SG   given   money
   'I phoned whoever I had given money to.'

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[2] Discussion will be confined to finite FRs occupying argument positions. Non-finite FRs (for Greek, see Agouraki 2005), or Clitic Left Dislocated FRs (for Greek, see mainly Alexiadou and Varlokosta 2007; Español-Echevarría and Ralli 2000) have been shown to display different patterns.

Less straightforward is FR formation in case mismatching contexts, where the competing predicates have distinct case requirements. This is because, the FR pronoun may realize the morphological case required either by the I-Predicate or the E-Predicate and not by both, unless we have an instance of case syncretism, where the pronoun is morphologically ambiguous between the two required cases, as in (4) below:

(4) *Káni   ó,ti   tis   arési.*
    do-3SG   what-ACC/NOM   cl-FEM.GEN like-3SG
    'She does whatever she likes.'
    [E-Predicate: Acc ≠ I-Predicate: Nom]

In connection to this, the deviance of the examples in (5) manifest that compliance of the FR pronoun with the I-Predicate is not an option in Greek FRs. Significantly, unlike what has been shown to hold for languages other than Greek (cf. Grosu 1994 for German), considerations such as the relative markedness of the conflicting cases are totally irrelevant. The I-Matching example in (5d) is not in any way improved compared to the previous examples (5a–5c), even though in a 'case markedness hierarchy' of the form 'non-oblique cases (nominative, accusative) > oblique cases (genitive)' the internally required genitive is more marked than the externally required nominative.

(5) a. **Efχarístisa   ópji   me   voíθisan.*
       thanked-1SG   whoever-NOM   cl-ACC.1SG helped-3PL
       'I thanked whoever helped me .'
       [E-Predicate: Acc ≠ I-Predicate: Nom]
   b. **Írθan   ópjus   káleses.*
       came-3PL   who-ACC   invited-2SG
       'Whoever you invited came.'
       [E-Predicate: Nom ≠ I-Predicate: Acc]
   c. **Éðosa leftá ópjos   me   voíθise.*
       gave-1SG money who-NOM   cl-1SG.ACC   helped-3SG
       'I gave money to whoever helped me.'
       [E-Predicate: Gen ≠ I-Predicate: Nom]
   d. **Me   efχarístisan ópjon   íχa   ðósi   leftá.*
       cl-ACC.1SG thanked-3PL who-GEN.PL had-1SG given money
       'Whoever I had given money to thanked me.'
       [E-Predicate: Nom ≠ I-Predicate: Gen]
   e. **Gnórisa ópju   éðosan   tin   ipotrofía.*
       met-1SG   who-GEN   gave-3PL   the   scholarship-ACC
       'I met whoever they gave the scholarship to.'
       [E-Predicate: Acc ≠ I-Predicate: Gen]

The grammaticality judgments in (6), on the other hand, reveal that compliance of the FR phrase with the case required by the E-Predicate restores grammaticality as long as the internally required case is not genitive. It is only in the presence of a resumptive clitic recovering genitive that (6d) and (6e) are rendered grammatical.[3]

(6) a. *Efχarístisa   ópjus   me   voíθisan.*
    thanked-1SG   who-ACC   cl-ACC.1SG   helped-3PL
    'I thanked whoever helped me.'
    [E-Predicate: Acc ≠ I-Predicate: Nom]

  b. *Írθan   ópji   káleses.*
    came-3PL   whoever-NOM   invited-2SG
    'Whoever you invited came.'
    [E-Predicate: Nom ≠ I-Predicate: Acc]

  c. *Éδosa   leftá   ópju   me   voíθise.*
    gave-1SG   money   who-GEN   cl-ACC.1SG   helped-3SG
    'I gave money to whoever helped me.'
    [E-Predicate: Gen ≠ I-Predicate: Nom]

  d. *Me   efχarístisan ópji   *(tus)   íχa   δósi   leftá.*
    cl-ACC.1SG thanked-3PL   who-NOM   *(cl-GEN.3PL)   had-1SG   given   money
    'Whoever I had given money to, thanked me.'
    [E-Predicate: Nom ≠ I-Predicate: Gen]

  e. *Gnórisa   ópjon   *(tu)   éδosan   tin   ipotrofía.*
    met-1SG   who-ACC   *(cl-3SG.GEN)   gave-3PL   the   scholarship-ACC
    'I met whoever they gave the scholarship to.'
    [E-Predicate: Acc ≠ I-Predicate: Gen]

That resumption of genitive is a requirement in mismatching contexts has been observed mainly for goal arguments (Alexopoulou 2006). The same can be shown to hold for beneficiaries (7a), malefactives (7b), source arguments (7c), and, finally, genitive arguments of monotransitive verbs (7d).

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[3] At a first approximation, it seems tempting to assimilate the Greek pattern to what is traditionally known as Case Attraction. However, there is at least one reason suggesting that the two phenomena should be kept apart: Case Attraction operates within the limits imposed by case markedness hierarchies (Grosu 1994). For instance, in the Ancient Greek example (i), Case Attraction is inapplicable, because the external nominative is less marked than the internal genitive. E-Matching, on the other hand, applies independently of the relative markedness of the cases concerned. It is compulsory not only in (10c), where the case required by the E-Predicate (genitive) is more marked than the case required by the I-Predicate (nominative), but also in (10d), where the reverse situation holds.

(i)   *egó: dé   kai   o:n   krato: menoumen.*
      I   though and   who-GEN   command-1PL   remain-1PL
      'But I and those whom I command will remain.'
      [E-Predicate: Nom ≠ I-Predicate: Gen]

(7) a. *Éminan   efχaristiméni   ópji   *(tus)   majírepses.*
      stayed-3PL   content   who-NOM   *(cl-GEN.3PL)   cooked-2SG
      'Whoever you cooked for was content.'

    b. *Θa   su   káni mínisi ópjos   *(tu)   trákares to aftocínito.*
      FUTM   cl-2SG   sue-3SG   who-NOM   *(cl-GEN.3SG) hit-2SG   the car
      'The person whose car you hit will sue you'

    c. *Paraponéθikan   ópji   *(tus)   píres   leftá.*
      complained-3PL   who-NOM   *(cl-3PL.GEN) took-2SG   money
      'Whoever you took money from complained.'

    d. *Írθan   ópji   *(tus)   tilefónises.*
      arrived-3PL   who-NOM   *(cl-3PL.GEN) phoned-2SG
      'Whoever you phoned arrived.'
      [E-Predicate: Nom ≠ I-Predicate: Gen]

To sum up, in case mismatching contexts, the FR pronoun surfaces with the externally assigned case (E-Matching). As to the internally required case, this is either deleted, if it is accusative or nominative, or resumed by means of a clitic, if it is unrecoverable genitive.

2.2 Theta Roles

The second type of mismatching that I will be concerned with is theta mismatching. In theta mismatching contexts the predicates have distinct theta grids. As a result the FR phrase is expected to saturate two different theta roles: (i) the internally required theta role, by virtue of being the argument of the I-Predicate, and (ii) the externally required theta role, by virtue of being the argument of the E-Predicate, or, to be more accurate, by virtue of heading the FR clause, which is the argument of the E-Predicate. Given that there is no one-to-one correlation between the case marking of DPs and the theta role they are licensed to saturate, it is possible to show that theta mismatching *per se* does not suffice to induce ungrammaticality.

    To begin with, it can be shown that FRs introduced by Nominative FR phrases converge in theta mismatching contexts. For instance, in (8) the E-Predicate requires a Nominative Agent, and the I-Predicate a Nominative Theme. As we see, the sentence is perfectly grammatical. The same picture emerges with Accusative. Thus, (9) is grammatical even though the E-Predicate requires an Accusative Goal, while the I-Predicate requires an Accusative Theme. Similar observations extend to Genitive. In the minimal pair in (10), we see that even though theta mismatching might give rise to a less natural reading, it is neither a necessary (10a), nor a sufficient condition (10b) for convergence.[4]

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[4] For some speakers, (10a) is improved in the presence of resumption (see Alexopoulou 2006). However, whereas the resumptive is obligatory in a case mismatching example such as (6d), it is only preferred in a theta mismatching example such as (10a).

(8) *Θa   érθi   ópjos   epilejí   apó tin epitropí.*
    FUTM   come-3SG   who-NOM   be-chosen-3PL   by   the committee
    'Whoever is chosen by the committee will come.'
    [E-Predicate: Nom, Agent ≠ I-Predicate: Nom, Theme]

(9) *Cérnaje   sfinákja ópjon   évlepe   brostá   tu.*
    offered-3SG   drinks   who-ACC   saw-3SG   in-front   cl-GEN.3SG
    'He offered drinks to whoever he saw.'
    [E-Predicate: Acc,Goal ≠ I-Predicate: Acc, Theme]

(10) a. *Έðosa   leftá   ópju   trákara   to aftokínito.*
       gave-1SG   money   whoever-GEN   hit-1SG   the car
       'Intended meaning: I compensated the person whose car I hit.'
       [E-Predicate: Gen, Goal ≠ I-Predicate: Gen, Malefactive]
     b.*Cérasa   sfinakja ópju   éðoses   to tiléfonó   mu.*
       offered-1SG   drinks   who-GEN   gave-2SG   the number-ACC   my-GEN
       'I offered drinks whoever you gave my number to.'
       [E-Predicate: Acc, Goal = I-Predicate: Gen, Goal]

On the basis of the above data, I conclude that theta mismatches are not implicated in the grammaticality of FR chains, at least not in the same way as morphological case mismatches.

2.3 Phi-features

The third instance of (mis)matching discussed here involves phi-features. In matching contexts, it is possible for the FR pronoun to agree simultaneously with both predicates. The resulting configuration is unsurprisingly grammatical. Consider, first, matching with respect to number. Given that subjects in Greek induce number and person verbal agreement, we need to construct an example, where the FR pronoun is the subject of both the External and the Internal Predicate. This is the case in (11), where the relevant predicates agree in their number specification with the singular form *ópjos*; matching is ensured and the derivation converges.

(11) *To vravío θa   to   cerðísi   ópjos   vri   ti   lísi.*
     the   prize   FUTM   cl-NEUT.SG   win-3SG   who-SG   find-3SG   the   solution
     'Whoever finds the solution gets the prize.'
        [E-Predicate: 3Sg = I-Predicate: 3Sg]

The situation is similar regarding gender. Given that in Greek, predicative adjectives always agree in gender and number with their DP subjects, we need to construct an example, where the FR pronoun functions as the subject of predication in both the matrix and the relative clause. Once again, the grammaticality judgments are straightforward. In (12), the relevant adjectives agree in number and gender specifications with the plural masculine form *ópjus,* giving rise to a grammatical construction.

(12) *Vríski   astíus   ópjus   vrísko   varetús.*
    find-3SG   funny-PL.MASC   who-PL.MASC   find-1SG   boring-PL.MASC
    'He finds funny whoever I find boring.'
    [E-Predicate: Masc = I-Predicate: Masc]

In mismatching contexts, on the other hand, where the predicates differ as to their phi-feature specifications, FR clause formation is impossible. First of all, I-Matching is not an option. Thus, both (13a), where the FR phrase fails to comply with the number specification of the E-Predicate, and (13b), where it fails to comply with the gender/number specification of the E-Adjective it controls, are clearly ungrammatical.

(13) a. **To vravío θa   to   cerδísun   ópjos   vri   ti lísi.*
      the prize   FUTM   cl-NEUT.SG   win-3PL   who-SG   find-3SG   the solution
    '*Whoever finds the solution get the prize.'
    [E-Predicate: Pl ≠ I-Predicate: Sg]
   b. * *Θeorí   astíes   ópjus   θeoró   varetús.*
     consider-3SG   funny-FEM.PL   who-MASC.PL   consider-1SG   boring-MASC.PL
    'He considers funny whoever I consider boring.'
    [E-Predicate: Fem Pl ≠ I-Predicate: Masc Pl]

Significantly, matching with the phi-feature specifications of the E-Predicate does not restore grammaticality (14) and neither does resumption of the phi-features of the I-Predicate (15):

(14) a. **To vravío θa   to   cerδísun ópji   vri   ti lísi.*
      the prize   FUTM   cl-NEUT.SG   win-3PL   who-MASC.PL   find-3SG   the solution
    '*Whoever finds the solution get the prize.'
    [E-Predicate: Pl ≠ I-Predicate: Sg]

   b. **Θeorí   astíes   ópjes   θeoró   varetús.*
    consider-3SG   funny-FEM.PL   who-FEM.PL   consider-1SG   boring-MASC.PL
    'He considers funny whoever I consider boring.'
    [E-Predicate: Fem Pl ≠ I-Predicate: Masc Pl]

(15) **Θeorí   astíes   ópjes   tus   θeoró   varetús.*
    consider-3SG   funny-FEM.PL   who-FEM.PL   cl-3MASC.PL   consider-1SG   boring-MASC.PL
    'Lit: He considers funny whoever I consider them boring.'
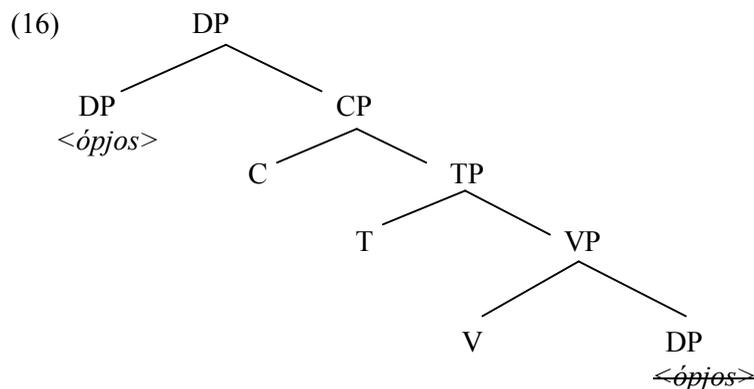   [E-Predicate: Fem, Pl ≠ I-Predicate: Masc, Pl]

We may, therefore, conclude that phi-feature mismatches in FRs give rise to irredeemable ungrammaticality, regardless of whether the FR phrase complies with the External or the Internal Predicate.

2.4 Interim Summary

So far we have seen that while Greek does not allow FRs in phi-feature mismatching contexts, it allows them in case mismatching contexts, provided that the following two conditions hold: (i) the FR pronoun realizes the case required by the E-Predicate and (ii) the internally required case, if genitive, is resumed by means of a clitic. Furthermore, it was shown that theta mismatching is not implicated in the grammaticality of FRs, at least not in the same way as case-mismatching. In what follows, I proceed to identify the questions that these patterns raise for our theory of case valuation and A' movement. My assumed theory of FR clause formation Move and Project (Larson 1998; Iatridou *et al.* 2001; Pancheva 2000; Bury 2003; Donati 2006).[5]

3   Identifying the Theoretical Problems

Move and Project maintains that in FRs, it is the Goal of movement (i.e. the FR phrase) rather than the Target (i.e. the C head) that projects. Specifically, the idea is that the FR pronoun (*ópjos*, in Greek) —which is arguably a D-type pronoun (Section 2)— Moves to the CP domain, and Projects its category to the newly formed constituent (see 16). As a result, the account captures in a straightforward way the hybrid semi-clausal, semi-nominal categorial status of FRs in Greek, and elsewhere (for Greek, see mainly Alexiadou and Varlokosta 2007, and references therein). More precisely, the claim that the FR pronoun Moves captures their A' movement properties (gap, locality, Weak Cross Over, parasitic gaps, reconstruction). At the same time, the claim that the FR phrase Projects captures their nominal properties (distribution, inflection, interpretation).

(16)

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              DP
           /      \
        DP          CP
     <ópjos>       /   \
                  C      TP
                       /    \
                      T      VP
                           /    \
                          V      DP
                               <ópjos>
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[5] My reasons for choosing Move and Project out of the existing frameworks of FRs (i.e. *Head Accounts* (Bresnan and Grimshaw 1978; Horrocks and Stavrou 1987; Philippaki and Spyropoulos 1997), *Comp Accounts* (Groos and van Riemsdijk 1981; Chila-Markopoulou 1991; Giannakidou 2001; Alexiadou and Varlokosta 2007; Spyropoulos 2007), and *Raising Accounts* (Kayne 1994; Daskalaki 2007)) are given in Daskalaki (2008). For a review of the existing analyses, see mainly Grosu (2003), and van Riemsdijk (2000).

When it comes to the accommodation of the case mismatching pattern, though, which was described in Section 2, and which constitutes the empirical focus of this paper, the account is faced by a number of challenges. In connection with this, let us consider the derivation of a case mismatching example, such as (17), repeated from (6a).

(17) *Efχarístisa   ópjus   me   voíθisan.*
     thanked-1SG   who-3PL.ACC   cl-ACC.1SG   helped-3PL
     'I thanked whoever helped me.'
     [E-Predicate: Acc ≠ I-Predicate: Nom]

Based on the assumptions: (i) that nominative is the reflex of Agree between a DP and a non-defective T and accusative case is the reflex of Agree between a DP and little *v* (Chomsky 2001)*,* and (ii) that phonological material is inserted in the morphological component in order to realize bundles of syntactic features (Halle and Marantz 1993), the derivation proceeds as follows:

1. The FR phrase, which bears valued phi-features and an unvalued case feature, Merges in the external argument position of the I-Predicate *voiθó* 'to help' ([Spec, *v*P]) and enters into an Agree relation with T.
2. Agree results in the case valuation of the FR phrase (Nom) and in the phi-features valuation of the I-Predicate (3rd Pl Masc).
3. To the insertion of C, the FR phrase Moves and Projects its category (D), case (Nom) and phi-features (3rd Pl Masc) to the newly formed constituent.
4. The newly formed DP Merges in the internal argument position of E-Predicate *efχaristó* 'to thank' (i.e. in the complement position of V) and enters into an Agree relation with its little *v* projection.
5. Agree results in case re-valuation of the projected DP, which now receives an Accusative value, and in the phi-feature valuation of the E-Predicate (3rd Pl Masc).

The derivation, as sketched above, faces two main problems, both of which are related to the step, where the projected FR phrase Merges with the E-predicate. The first problem, which I will be referring to as the problem of "Multiple Agree", occurs not only in case mismatching configurations (Section 2.2), but also in case matching ones (Section 2.1). If the FR phrase has already entered into an Agree relation with the I-predicate, how is it possible for its projection to enter into a novel Agree relation? According to the Activity Condition this second Agree relation is an illicit derivational step, because once an element has valued its uninterpretable features, it fails to enter into further Agree relations (Chomsky 2001:15). The second problem, which I will be referring to as the problem of "Case Re-valuation", is inherent to case mismatching configurations. If the FR phrase has already had its case feature
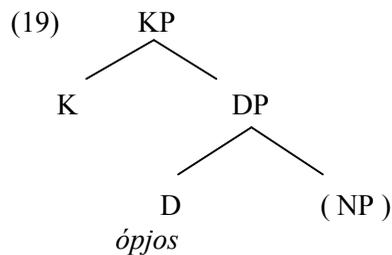
valued fixed upon Agree with the I-Predicate (Nom), how is it possible to receive a novel value (Acc), upon Agree with the E-Predicate?

4 Towards an Analysis

Case features are in principle able to enter into alternations, because they are *context-dependent*. In other words, they are licensed or determined by DP external heads in the course of the derivation. Phi-features, on the other hand, are *context free*, in the sense that they are determined within the computational space of the DP (on the bifurcation of nominal features into context free and context dependent, see Harley and Ritter 2002).[6] If the bifurcation of nominal features into *context dependent* and *context free* is reflected on the relative hierarchy of nominal projections, then we expect case to reside in the outer layer of the nominal projection and phi-features in the layers which are closer to the nominal stem. This is consistent with the KP Hypothesis (18), put forward on independent grounds in Lamontagne and Travis (1987).

(18)   *Nominal Phrases are maximally KPs.*

It follows from the KP Hypothesis, that *ópjos (NP)* 'whichever (NP)', which is a nominal phrase, may receive the more elaborated schema depicted in (19).

(19)   KP

        K   DP

                D   (NP)
            ópjos

In addition to (18), which will be the main hypothesis of my proposal, I will be further making two auxiliary assumptions, stated in (20) and (21), respectively.

(20) *Move may target either the KP, or its DP substructure.* When the first option materializes, the FR pronoun Moves and Projects as a KP (a). When the second option materializes, the FR pronoun Moves and Projects as a DP, stranding in situ its internally valued Kase layer (b).

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[6] Note that the distinction between *context dependent* and *context free* features relates only loosely to the more familiar *intrinsic-non intrinsic* and *interpretable-uninterpretable* distinctions, which are found in Chomsky (1995: 277). Context dependent features cannot be assimilated to non-intrinsic features, because the latter ones include number. Accordingly, context dependent features cannot be assimilated to uninterpretable features, because the latter ones exclude inherent case.

a. [[$_{KP}$ **<[KP [DP pronoun]]]** > [$_{CP}$ ….. **<[KP [DP pronoun]]>**]
b. [[$_{DP}$ **<DP pronoun** > [$_{CP}$ …. [KP **<DP pronoun>**]]

(21)   *Where a new nominal argument is Merged, a K must be inserted.* It follows that the FR phrase and the FR construction as a whole, being two distinct arguments, will be introduced by two distinct Kase layers:

a. THE I(NTERNAL) KASE LAYER, which is valued by the I- Predicate
b. THE E(XTERNAL) KASE LAYER which is valued by the E- Predicate

The emerged system makes it possible to propose that the Greek case (mis)matching pattern results from: (i) Moving the DP substructure of the FR phrase out of its internally valued Kase layer, resulting in what is known as a Kase Stranding configuration, (22a), (ii) Merging of a second Kase layer after the DP has Moved and Projected, (22b), and (iii) Deleting/Resuming the internally valued Kase layer, (22c).[7]

(22) a. <[DP]>…. I-K <[DP]>
    b. E-K <[DP]>…. I-K <[DP]>
    c. E-K <[DP]>…. ~~I-K <[DP]>~~

With these preliminaries in mind, let us reconsider the derivation of (17). At a first step, the FR phrase, which in the suggested system is a KP, Merges in the [Spec, vP] of the I-Predicate *voiθó* 'to help' and enters into an Agree relation with T. Agree results in the case valuation of the FR phrase (Nom) and in the phi-features valuation of T (3rd Pl M).

(23) [T [vP **[I-KP-Nom]**]]

Further to the insertion of C, Move targets the DP substructure of the FR phrase, stranding in situ the internally valued Kase layer. The FR phrase Moves and Projects as a DP.[8]

(24)   [DP **<DP>** [CP   T [vP [KP –Nom **<DP>**]]]]

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[7] The proposal is similar in spirit with Nevins (2004), who appeals to Kase Stranding in order to account for hyperraising phenomena. A notational variant is found in Bejar and Massam (1999), who talk about stranding of a case feature ('case subscript', in their terms). However, while they deal with constructions, in which a single DP receives more than one case values (see also Merchant 2006, for similar data and discussion), in FRs we deal with two DPs: the FR phrase (i.e., the argument of the I-Predicate) and the FR as a whole (i.e., the argument of the E-Predicate).

[8] I am assuming that case percolation to the lower projections takes place in a post-syntactic component. Hence, D Moves and projects without a ca se value of its own.

Subsequently, the projected DP Merges with the External Kase layer:

(25) [E-KP [DP <DP> [CP   T [vP [I-KP –Nom <DP>]]]]]

The newly formed KP Merges in the complement position of the E-Predicate *efxaristó* 'to thank' and enters into an Agree relation with little *v*. Agree results in the case valuation of the External Kase layer (Acc) and in the phi-feature valuation of the E-Predicate (3rd Pl).

(26) [v [VP [E-KP-Acc [DP <DP> [CP   T [vP [I-KP –Nom <DP>]]]]]]]

Finally, the Internal Kase deletes under "non-distinctness" with the External one:

(27) [v [VP [E-KP-Acc [DP <DP> [CP   T [vP [I-~~KP –Nom <DP>~~]]]]]]]

It becomes clear from the above derivation that the suggested account provides a solution to the two theoretical problems that motivated our discussion. First of all, it dispenses with the need to integrate a multiple Agree/Case valuation relation. This is because the E-Kase layer, which enters into an Agree relation with the E-Predicate, bears an unvalued case feature. Second, it derives the surface effect of case alternations, because the case feature of the E-Kase layer is eventually valued by the E-Predicate, which may or may not agree in its case requirements with the I-Predicate.

At the same time, though, our account raises a couple of technical questions that need to be addressed. The first question concerns the source of the External Kase Layer. In principle, it could either be available in the Numeration or projected in the course of the derivation as the outcome of Agree. Given that the derivational projection of Kase appears to violate the Inclusiveness Condition (Chomsky 1995), I will be assuming that it is available in the Numeration. The second question concerns the Deletion/Resumption of the Internal Kase Layer. That cases differ as to their deletion potential has been pointed out for languages other than Greek (cf. Pesetsky 1998) and is most commonly reduced to the contrast between "oblique" and "non-oblique" cases. Specifically, the intuition is that oblique cases need to be recovered, either by means of a sufficiently local antecedent or by means of resumption. Non-oblique cases, on the other hand, are recoverably deletable on their own. Here, I follow this intuition and I further implement it with the notion of case de-composition. More precisely, following Alexiadou and Müller (2008), I am assuming that nominative, accusative, and genitive in Greek, rather than being primitive features, they can be decomposed as in (28). This assumption opens up the possibility to suggest: (i) that the internal Kase layer deletes when its case features are a proper subset of the case features of the external Kase layer, and (ii) that resumption is the spell-out of the I-Kase layer that fails to be recoverably deleted. The suggestion correctly predicts the deletion patterns under (29a–e). Admittedly,

less straightforward is the derivation of (29f), where accusative deletes even though [+Gov] cannot be recovered by the featural make up of the external nominative.

(28) Nom [−Governed, −Oblique]
     Acc [+Governed, −Oblique]
     Gen [+Governed, + Oblique]

(29) a. *<ópjos* [−Gov, −Obl] >   ~~*<ópjos* [-Gov, -Obl]>~~
      b. *<ópjon* [+Gov, -Obl] >   ~~*<ópjon* [+Gov, -Obl]>~~
      c. *<ópju* [+Gov, +Obl] >   ~~< *ópju* [+Gov, +Obl]>~~
      d. *<ópjon* [+Gov, −Obl] > ~~*<ópjos* [-Gov, -Obl]>~~
      e. *<ópjon* [+Gov, −Obl] >   < tu [+ Gov, +Obl]>
      f. *<ópjos* [−Gov, −Obl] >   ~~*<ópjon* [+Gov, -Obl]>~~

Summing up, in this section, I provided a formal account of the Greek case (mis)matching pattern that combines the theory of Move and Project with the KP Hypothesis. In what follows, I examine the implications of this proposal at a language-internal level as well.

5 Language Internal Implications

If our account is on the right track, and Kase Stranding is an option made available by the Greek grammar, then we need to explain what determines its distribution across A' movement constructions. In other words, we need to explain why it is a viable option in FRs, but not in standard A' movement constructions, such as interrogatives.

In principle, Move may target the DP node both in FRs and in interrogatives. Whether the operation will converge or not depends on the external syntax of the constructions. In interrogatives, where there is no external case assigner, the sub-extracted DP remains case-less, and consequently it fails to be realized in the morphological component. This is because the Greek nominal paradigm has no case-less Vocabulary Items (cf. Ralli 2005) and "Insertion does not take place, if the Vocabulary Item contains features not present in the morpheme" (Halle 1997: 128). In FRs, the sub-extracted DP may receive a novel case value from the E-Predicate.

6 Conclusion

In this paper, I undertook a thorough investigation of tolerated and non-tolerated mismatches which are found in Greek Free Relative (FR) chains. The general observation is that mismatches in phi-features give rise to irredeemable ungrammaticality, while mismatches in case are under specific conditions acceptable. At a theoretical level, the observed contrast was reduced to the distinction between contextually and non-contextually determined features providing an analysis that builds on the KP Hypothesis.

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