'Subject' and EPP in Greek

The discontinuous subject hypothesis*

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In the present study we examine the notion 'subject' in finite clauses in Greek, a null-subject language, and we investigate the connection between the rich morphological marking of subject-agreement on the verb and the definition of this notion. We propose that 'subject' in Greek should be analysed as a discontinuous element which consists of a null nominal element in the SpecTP position satisfying the Extended Projection Principle (EPP), associated with a *pro* at the relevant theta-position inside the VP. We argue that this analysis has not only the theoretical advantage of maintaining the universally strong value of EPP, but also, perhaps more importantly, the descriptive advantage of providing a satisfactory explanation for a number of apparent idiosyncrasies of Greek constructions.

Keywords: Extended Projection Principle, agreement, subject, discontinuous subject, subject-clitic, Agree α , clitic, subject-control, gerund, small clause.

1. Introduction

The rich morphological marking of subject-agreement has been considered to affect the definition of 'subject' in Greek (Philippaki-Warburton 1987, 1989, Tsimpli 1990, Catsimali 1990, Drachman & Klidi 1992, Drachman 1994, Horrocks 1994, Alexiadou & Anagnostopoulou 1998). In this paper we will examine some of the properties of Greek 'subject' (overt or null) in order to shed more light on the issue of what the status of the Extended Projection Principle (EPP)¹ is in Greek and, subsequently, how the notion 'subject' is defined in this language.

2. Subject-agreement in Greek

Greek has a rich morphological (inflectional) system, both nominal and verbal. The verbal system makes a full distinction of person (1st, 2nd, 3rd) and number (singular, plural) subject-agreement in all the verbal morphological classes (tenses, moods (except for imperative, in which only 2nd person is marked), and aspects), except for the gerund.² This rich-subject agreement morphology on the verb form licenses and identifies a null-subject with full referential properties in all types of clauses, main and embedded:

- (1) a. elisa to provlima
solved-1SG the problem-ACC
'I solved the problem'
- b. i maria_i mu ipe oti *pro*_{i/j} θa erθi aryotera
the Mary-NOM I-GEN told-3SG that FUT come-3SG later
'Mary told me that he/she will come later'

Furthermore, Greek has also expletive null-subjects in the following structures: (a) impersonal verb/expression constructions, (b) weather verb/expression constructions, and (c) existential constructions:

- (2) a. fenete oti θa exume sintoma ekloyes
seems that FUT have-1SG soon elections-ACC
'It seems that we will have elections soon'
- b. vrexι
rains
'It rains'
- c. stin estia mas exi poli fasaria
in.the hall our-GEN has much noise-ACC
'There is a lot of noise in our hall'

Finally, a null-subject is also involved in generic/indefinite statements.³

- (3) a. xtipane tin porta
knock-3PL the door-ACC
'Someone is knocking on the door'
- b. sta kalavrita ftjaxnun oreo tiri
in.the Kalavrita make-3PL nice cheese
'They make nice cheese in Kalavrita'
- c. εδο δulevis poli ke amivese liyo
here work-2SG much and get-paid-2SG a.little
'Here, you do a lot of work and get paid little'

3. The position of DP-subjects

Unlike English DP-subjects, which occupy a stable position in the syntactic configuration, Greek DP-subjects can be either preverbal or postverbal, (4)

- (4) a. o janis ayapai ti maria SVO
 the John-NOM loves the Mary-ACC
 'John loves Mary'
 b. ayapai o janis ti maria VSO
 c. ayapai ti maria o janis VOS

The surface position of Greek DP-subjects has been exhaustively examined in the literature and the widely accepted view is that the preverbal DP-subject is associated with a topic reading (Philippaki-Warburton 1985, Lascaratou 1984, 1998, Tsimpli 1990, Tzanidaki 1998, Alexiadou 1999 etc). As such it does not have the status of a syntactic argument, but is a peripheral element adjoined to the clause and therefore has $\bar{A}$ status. This hypothesis is corroborated by structural evidence, which clearly shows that the DP-subject cannot occupy the EPP SpecTP position.⁴ Given that Greek is a V-raising language (Tsimpli 1990, Philippaki-Warburton 1990, 1998, Alexiadou & Anagnostopoulou 1998), i.e. that the verb moves overtly to the T head, we expect that there should be a strict adjacency between the DP-subject and the verb, if the DP-subject occupied the SpecTP position. However, if we take a closer look at the morphosyntax of the Greek verb group we have a straightforward indication that the DP-subject can never occupy the SpecTP position, because if it did it would interrupt morphologically adjacent elements, i.e. the mood and negation particles on the one hand and the verb on the other, which form a single phonological unit. Consider the Greek clause structure as presented in Philippaki-Warburton (1998).⁵

If the EPP position relevant to the ‘subject’ is, as standardly assumed, the SpecTP, then the DP-subject will not be able to occupy this position in negative, subjunctive and future tense clauses. The negative and subjunctive particles and the future marker constitute the heads of the relevant functional categories above T. These elements, though not affixes, are morphophonologically reduced and are attached to the verb form of the clause so that strict adjacency must be respected between each of these particles and the following verb form (Philippaki-Warbuton 1990, Philippaki-Warbuton & Spyropoulos 1999):

- (6) a. na (min) (*i maria) erθi (i maria)
SUBJ NEG the Mary-NOM comes the Mary-NOM
b. de θa (*i maria) erθi (i maria)
NEG FUT the Mary-NOM comes the Mary-NOM

We therefore conclude that the DP-subject does not occupy the SpecTP position in SVO orders, because it cannot interrupt the sequence particle-verb form.

Another piece of evidence derives from case attraction phenomena in finite subjunctive clauses. In these constructions the preverbal DP-subject of the embedded clause is more likely to appear in the accusative case than the normal nominative.

- (7) perimeno ti maria na erθi
expect-1SG the Mary-ACC SUBJ come-3SG
‘I am expecting Mary to come’

The subjunctive form is finite in Greek and assigns nominative case to the subject, as is obvious from the corresponding VS(O) orders, in which the DP-subject can appear only in the nominative case.⁶

- (8) perimeno na erθi i maria
 expect-1SG SUBJ come-3SG the Mary-NOM
 'I expect that Mary will come'

The accusative case of the preverbal DP-subject in (7) could not be explained if the preverbal DP-subject occupied the SpecTP position, because the accusative case of the preverbal DP-subject would cause a case mismatch since the embedded T licenses a nominative case. On the other hand, if the preverbal DP-subject is not an argument, its case is not necessarily determined by the properties of the embedded clause and therefore it can be affected by the main clause verb without a case mismatch (Philippaki-Warbuton & Spyropoulos 1997). We therefore conclude that there is no Spec-Head relation between the verb and the preverbal DP-subject and subsequently that the preverbal DP-subject does not occupy the SpecTP position projected for EPP.

On the other hand, it has been convincingly argued that the DP-subject in the VS(O) orders (including unaccusatives, ergatives and passives) has not moved outside the VP and that it occupies its theta-position (see Alexiadou 1999 and Alexiadou & Anagnostopoulou 1998 for details). Evidence derives from the relative order between the DP-subject and manner adverbs, which are considered to mark the left edge of the VP:

- (9) a. ine aliθia oti eyrapsan kala i fitites (*kala) stis
 is true that wrote-3PL well the students-NOM well in.the
 eksetasis
 exams-ACC
 'It is true that the students did it well with the exams'
 b. θelo na mu pis an episkeftotan sixna
 want-1SG SUBJ I-GEN tell-2SG whether was.visiting-3SG frequently
 o janis *(sixna) ti mitera tu
 the John-NOM frequently the mother-ACC he-GEN
 'I want you to tell me whether John used to visit his mother frequently'

Thus, by considering the syntactic status of the DP-subject in both SV(O) and VS(O) orders, we can safely conclude that the DP-subjects do not occupy the SpecTP position in Greek.

4. Agreement and Subject

As mentioned above, it has been convincingly argued in the literature that the DP-subject in Greek does not occupy the specifier position projected by the strong D feature of T. Thus, DP-subjects in Greek do not undergo A-movement, i.e. they can only surface at their merging positions, either the relevant theta-position inside the VP, or an adjoined peripheral position. Thus, EPP seems not to be relevant to the licensing of the DP-subject in Greek, the only argument position for the DP-subject being the relevant VP-internal theta-position. Given the evidence that the DP-subject can never occupy the SpecTP, we may conclude that the SpecTP position does not project in Greek (Philippaki-Warbuton 1987, 1989).

It has been argued that the suspended effects of the EPP are associated with the rich morphological marking of subject agreement (Contreras 1991, Roberts 1993, Philippaki-Warbuton 1987), while pointing out the similar status of the preverbal DP-subjects and the clitic-doubled DP-objects in Greek, suggested that the rich morphological marking of subject-agreement has a pronominal status and that the 'subject' in Greek is defined word internally (i.e. morphologically) and thus the SpecTP need not be projected to satisfy EPP (see also Philippaki-Warbuton 1989). Based on these proposals and building on the assumptions of the Minimalist Program, Alexiadou & Anagnostopoulou (1998) formulated an analysis (A&A analysis henceforth) of how the strong D feature of the T can be satisfied in a null-subject language, without EPP itself being suspended. According to their analysis, the pronominal status of the rich subject-agreement morphology is formally translated into a categorial feature D, which is carried by the verb inflection. The verb then carries this D feature among its other formal features. Given that Greek is a V-raising language, as the verb moves to T, the D feature of its inflection checks the functional D feature of the T so that the SpecTP position does not project.

(10)

As a consequence, the DP-subject is either merged with the relevant theta-position inside the VP, where it remains, or it is adjoined⁷ to the clause and is licensed by being linked⁸ to a *pro* in the relevant theta-position inside the VP.

5. Evidence for the existence of the EPP SpecTP position

In the following sections we will present some evidence that supports the existence of the SpecTP in Greek. These phenomena cannot be accounted for by the A&A analysis and thus call for a different explanation.

5.1 Theory internal evidence: Predication

The main theoretical weakness of the A&A analysis is that it cannot formally capture the relationship between predication and the satisfaction of EPP. Predication is defined as the relation between the 'subject' of the clause and the predicate. This relation is assumed to close the proposition and to define the clause. Furthermore, the necessary condition for this relation to be established (as proposed by Williams 1980) is that of c-command between the 'subject' and the predicate. In other words, the element that functions as the 'subject' of the clause must c-command the predicative phrase as a whole. The EPP in its standard interpretation (i.e. the projection of a SpecTP) facilitates this relation by providing the appropriate c-commanding position for the 'subject' (see also Rothstein 2001).

Given these assumptions, we cannot see how this predication relation can be established in Greek clauses if the EPP is parameterised so as to be checked

by the verb movement to the head of the functional category T. The ‘subject’ element in this analysis (i.e. the verbal ending) is too embedded inside the V head (which ends up embedded in the T head) to be able to c-command the VP (see the tree diagram in (10)).

5.2 Empirical evidence

We saw that on theoretical grounds, there should be an EPP specifier in order for predication between the DP-subject and the VP to be established. We will now seek empirical evidence that will support the existence of the EPP specifier in Greek, too. Given our earlier conclusion that an overt DP-subject cannot occupy this position, the evidence we seek will be mainly indirect.

5.2.1 Impersonal (*expletive*) structures

Expletive structures in overt subject languages constitute a strong piece of evidence for the existence of the EPP specifier. The existence of an overt element in the preverbal subject position, which is not required by the argument structure of the predicate, but only functions to satisfy the requirement that the clause have a subject, shows that EPP is configurational, i.e. its effect is to project a specifier position in the configuration. Greek is a null-subject language, so this kind of evidence has to be indirect. As was mentioned above, Greek possesses structures that involve an impersonal verb (i.e. a verb with a default 3rd person singular subject-agreement), which can only take a clausal complement as an internal argument. Not surprisingly, these structures are similar to the English ones, so that we may suggest that these structures involve a null-expletive ‘subject’ in an EPP specifier position:

- (11) a. fenete [_{CP} *oti* *ðe* *ða* *ɣinun* *ayones* *tin* *Kirjaki*]
 seems that NEG FUT happen-3SG matches-NOM the Sunday
 ‘It seems that there will be no matches on Sunday’
 b. bori *na* *min* *ta* *kataferume*
 may-3SG SUBJ NEG them-ACC manage-1SG
 ‘We may not make it’
- (12) a. It seems that John will not come
 b. It is believed that Jidane is the best football player

If agreement morphology must be licensed somehow in the syntactic configuration, then we may suggest that default subject agreement in impersonal verbs is licensed by (or it is the result of) a null-expletive ‘subject’ in the SpecTP

position. However, let us investigate how the A&A analysis could account for these structures:

According to the A&A analysis the verbal ending carries a D categorial feature because verb ϕ -features are +referential and therefore +interpretable, i.e. the nominal status of the subject-agreement morphology depends on its being interpreted as having referential properties. In order to account for the impersonal verb structures, this analysis would have to assume that default subject-agreement morphology also carries a categorial D feature. However, this hypothesis is problematic because default subject-agreement morphology is non-referential and thus can neither be +interpretable nor carry a categorial D feature. Thus, the hypothesis that default subject-agreement also carries a D categorial feature means that the link between the referential character of subject-agreement morphology and its nominal status is weakened and this undermines the descriptive power of the A&A analysis.

We conclude that the A&A analysis of subject cannot apply to the impersonal verb constructions. We suggest that these constructions should be analysed as involving a null-expletive and that they thus provide evidence for the existence of the SpecTP position.

5.2.2 *Structures with controlled subjects*

It is widely accepted that control can be established only when the controller is an argument of the main clause which c-commands the controlled null-subject of the secondary clause (Chomsky 1981, Manzini 1983, Chomsky & Lasnik 1993). This condition on control accounts for certain asymmetries in the possibility of control by the subject and the object of the main clause.

In Greek, certain manner adjunct clauses have null-subjects that can be controlled by the subject of the main clause but not by the object.⁹ These are the manner clauses that involve a gerund form (ending in *-ondas*). The clauses with a gerund verb form are the only structures that can be argued to involve a PRO subject in Greek,¹⁰ since they are the only uncontroversially non-finite forms. These clauses are adjoined to the VP or to the maximal projection of a functional category dominating VP, but in any case they are lower than the TP and higher than the VP. In that position their null-subject cannot be c-commanded by the DP-object of the main clause, which stays inside the VP. In fact no argument inside the VP can c-command the null-subject of the adjoined gerund clause:

- (13) a. i porta_i anikse [PRO_i trizondas]
 the door-NOM opened-3SG squeaking
 'The door opened with a squeak'
- b. *aniksame tin porta_i [PRO_i trizondas]
 opened-1PL the door-ACC squeaking
 'We opened the door and it squeaked'
- c. aniksame tin porta_i [$PRO^*_{i/j}$ klotsondas tin me δ inami]
 opened-1PL the door-ACC kicking it-ACC with force
 'We opened the door by kicking it with force'
- (14) a. *i δ a to joryo_i [PRO_i kutsenondas]
 saw-1SG the George-ACC limping
 'I saw George limping'
- b. sinandisa tin ana_i [$PRO^*_{i/j}$ piyenondas sti vivlio θ iki]
 met-1SG the Anna-ACC going to.the library
 'I met Anna on my way to the library'

The examples above show that the null-subject of a gerund clause is controlled by the 'subject' of the main clause but not by the object. This asymmetry cannot be accounted for if the only subject position is the theta-position inside the VP, because this position cannot c-command and thus control the null-subject of the gerund. Moreover, the suggestion that the subject-agreement morphology (being nominal) is able to function as the controller as the A&A analysis would predict, cannot be right, because this element is too embedded inside the verb form to be able to c-command the null-subject of the adjunct clause (see the tree diagram in (10)).

The question whether subject agreement morphology is able to c-command brings back the issue of the syntax-morphology interface and the status of inflection as a syntactic or morphological process. Given the strong lexicalist thesis adopted by the minimalist program, i.e. that only full-words can be syntactic objects, and that words enter syntax morphologically complete (Chomsky 1995), morphologically bound elements like subject-agreement morphology do not participate in syntactic operations (e.g. control). On the other hand, the research on the syntax-morphology interface of Greek has shown that the formation of verb inflection is a matter of morphology and not of syntax in the sense that the verb form is not assembled by means of a head-to-head movement operation, but rather it is constructed in a separate morphological component and enters syntax complete (Joseph & Smirniotopoulos 1993, Ralli 1998, Philippaki-Warbuton & Spyropoulos 1999). This means that functional heads in Greek do not host real affixes but features, and subsequently

subject-agreement morphology does not have the status of a clitic or syntactic affix.¹¹ Since the verb form is an island for the morphological material it incorporates, subject-agreement morphology, being incorporated in the verb, is neither able to c-command nor to function as a controller.

Empirical support for our claims comes from the unavailability of object control in clitic structures:

- (15) ton_i $i\delta a$ [$PRO^*_{i/j}$ $trexondas$]
 him-ACC saw-1SG running
 'I saw him while I was running'

In example (15) the clitic *ton* has adjoined to the verb form *iða* in T. The partial structure is the following:

The unavailability of control in example (15) shows that clitics are in general unable to function as controllers.¹² This unavailability can be attributed to the fact that clitics incorporate into the verbal head, which is adjoined to T, and thus are not in an A-position as would be required if they were to function as controllers. Extending this observation to subject-agreement morphology we can safely conclude that, even if subject-agreement morphology had the status of a clitic adjoined to the verb stem, it would not be able to function as a controller (otherwise object-control from the clitic would be equally acceptable).

We conclude that the A&A analysis cannot account for the asymmetry between subject and object in adjunct control structures. The ability of the 'subject' of the main clause to control the subject of a manner adjunct clause can only be explained if we assume the existence of a nominal 'subject' element

in a clearly defined A-position in the syntactic configuration which can obviously c-command the adjunct clause, namely the SpecTP position. Thus, adjunct control structures provide evidence for i) the existence of the SpecTP position as a ‘subject’ position in Greek, and ii) the interpretation of the EPP as a certain position in the syntactic configuration, which facilitates specific syntactic needs and accounts for certain asymmetries in the syntactic behaviour of the arguments.

6. The movement analysis

The evidence presented above shows that the SpecTP position is projected in Greek and is occupied by a null-subject element, since the DP-subject is argued not to be able to occupy this position. This could lead to a movement analysis of ‘subject’, according to which *pro* moves from its original theta-position inside the VP to the SpecTP position, leaving behind a trace.

A similar analysis has been recently advanced for Italian by Cardinaletti (1997), building on evidence that *pro* is preverbal in Italian and that the preverbal DP-subject can function as an argument in this language, i.e. it is not necessarily an adjoined peripheral element. In what follows we will try to show that a movement analysis cannot work for Greek.

6.1 VS(O) orders

In the Greek VS(O) structures the surface order shows that the DP-subject has not moved to the SpecTP. Thus, the movement analysis should explain why the DP-subject stays in situ in these structures. The surface ordering of this construction resembles English existential and unaccusative structures with the

expletive *there*. The standard analysis of these constructions involves the expletive *there* in the SpecTP position and the DP-subject in the postverbal VP-internal theta-position:

(18) There arrived three men

By transferring this analysis to the postverbal DP-subject structures in null-subject languages, Cardinaletti (1997) follows Rizzi (1982) and others in suggesting that this structure involves an expletive *pro* in the SpecTP position, whereas the DP-subject stays in the VP-internal theta position:

(20) [_{TP} *pro*_{expl} V-T [_{VP} ... DP-subject ...]]

To fill in the details, the covert raising of the formal features of the DP-subject (FF[DP-subject]) to the V-T complex explains the agreement between the verb and the DP-subject.¹³ In this sense this *pro* is actually featureless.

Such an analysis raises the question why this special strategy is involved for the satisfaction of the strong D feature of T, since the latter can be satisfied by the overt movement of the DP-subject. In other words, the expletive strategy seems to be redundant. Its existence in languages such as English and Icelandic (which cannot be denied since the expletive is an overt form) has been explained in terms of the Definiteness Restriction (DR) constraint: it is used when the DP-subject is indefinite with an intended weak reading and the whole utterance is presented as new information (see Bobaljik & Jonas 1996, Bobaljik & Thrainsson 1998). Such an analysis may be viable for Italian, which allows postverbal DP-subjects only when there is no DP-object, i.e. in unaccusative structures, and this DP-subject is indefinite (Rizzi 1997, Burzio 1986).

Let us now return to Greek. It has been argued (Alexiadou 1999, Alexiadou & Anagnostopoulou 1998) that Greek VS(O) structures do not necessarily show a DR effect, which is the trademark of the expletive analysis:

(21) *irθan ta peδia*
 came-3_{PL} the children-ACC
 'The children have arrived'

In addition, this order is not restricted only to unaccusative constructions, but it can be used as an alternative for the SV(O) with all eventive predicates and in all the possible constructions:

- (22) a. transitive
 efaye i maria to γliko
 ate-3SG the Mary-NOM the cake-ACC
 'Mary ate the cake'
- b. unergative
 pezun ta peðia
 play-3PL the children-NOM
 'The children are playing'
- c. unaccusative
 irθan i fili mu
 came-3PL the friends-NOM I-GEN
 'My friends came'
- d. ergative
 vrazun ta xorta
 boil-3PL the vegetables-NOM
 'The vegetables are boiling'

Even if we accept the existence of the expletive strategy for the structures involving an unaccusative/ergative verb and an indefinite DP-subject which obligatorily appears in the post-verbal position, this expletive strategy cannot account for the examples above which contain a definite postverbal DP-subject in the theta-position in transitive constructions. Thus, there should be some other reason why the DP-subject does not raise from its VP-internal theta position in these cases. Thus we conclude that the movement analysis fails to explain the properties of Greek VS(O) orders.

6.2 SV(O) and null-subject constructions

As was mentioned above there is enough evidence for the hypothesis that Greek preverbal DP-subjects are A-bar elements. If so, the movement analysis would predict that it is the *pro* that occupies the SpecTP position:

- (23) DP-subject_i [_{TP} *pro*_i V-T ... [_{VP} ... t_i ...] ...]

Given that *pro* is a null-element, the only diagnostic for its position is the DP-subject pattern, i.e. *pro* can occupy a position that the DP-subject can

occupy. Since the only A-position for the DP-subject in Greek is the VP-internal theta position, we expect that *pro* occupies that position and thus is always postverbal, i.e. it does not move to the SpecTP position.

- (24) (DP-subject_i) [_{TP} V-T ... [_{VP} ... *pro*_i ...] ...]

Evidence for this hypothesis derives from the fact that in Greek subject extraction from an embedded clause is allowed:

- (25) a. *pjos ipes oti espase to potiri?*
 who-NOM said-2SG that broke-3SG the glass-ACC
 'Who did you say broke the glass?'
 b. *pjos ipes oti efiye?*
 who-NOM said-2SG that left-3SG
 'Who did you say left?'
 (26) a. *Who did you say that broke the glass?
 b. *Who did you say that left?

This property of Greek can be related to the fact that the DP-subject can be postverbal, and there is enough evidence in the literature that in null-subject languages extraction of the DP-subject takes place from the postverbal position (Rizzi 1982, Brandi & Cordin 1989, Ouhalla 1993, Campos 1997). The ungrammaticality of the English examples (26) can be attributed to the fact that DP-subject in English is always preverbal. This property of preverbal DP-subjects has been considered to derive from the syntactic status of the SpecTP position. In configurational terms this specifier cannot be c-commanded by the verb, since the verb can only reach the T functional category. The standard GB theory has explained this property of the SpecTP in terms of the Empty Category Principle and the absence of lexical government. A preverbal DP-subject in the SpecTP position can never be lexically or theta-governed by the verb, because it cannot be c-commanded by it. In the current minimalist program, where government has been dispensed with, these phenomena have been left unaccounted for.¹⁴ Whatever the theoretical account is, the possibility of DP-subject extraction seems to depend on the relative positions of the verb and the DP-subject.¹⁵ A preverbal DP-subject is not c-commanded by the verb so it cannot be extracted. A postverbal DP-subject on the other hand can be c-commanded by the verb and thus be extracted.

Similarly, extraction out of a DP-subject is also possible in Greek. Greek and English DP-subjects therefore contrast in this property too, since in English, extraction out of a DP-subject is impossible (*Subject Condition*):

- (27) a. pjanu_i ipes [_{CP} oti irθe [_{DP} o aðelfos t_i]]
 whose said-2SG that came-3SG the brother-NOM
 'The brother of whom did you say came?'
 b. *Whose did you say that the brother came?

This asymmetry has also been attributed (Chomsky 1986) to the fact that in English the DP-subject is not c-commanded by the verb, because it is preverbal and therefore it constitutes an island for extraction from within it. In Greek, on the other hand, a DP-subject can be postverbal and can be c-commanded by the verb so that it permits extraction from within it. This again constitutes a strong piece of evidence that the only argument position for the Greek DP-subject is the postverbal one.

Consider now example (28) in which extraction out of the DP-subject is licensed even if it is preverbal:

- (28) a. pjanu peðju_i ipes [_{CP} oti [_{DP} o pateras t_i] θa
 which child-GEN said-2SG that the father-NOM FUT
 kani paraþona?
 make-3SG complaints
 'The father of which child did you say will complain?'
 b. *Of which child did you say that the father will complain?

Given that Greek preverbal DP-subjects are A-bar elements coindexed/agreeing with a clause internal *pro*, they are interpreted in the position of *pro*. We may go so far as to suggest that the preverbal DP-subject in Greek is somehow 'reconstructed' to the position of *pro* at the LF interface. If this is so, then we have a further argument for the postverbal position of *pro* in Greek. Consider the two alternative structures:

- (29) a. DP-subject_i [_{TP} *pro*_i V-T ... [_{VP} ... t_i ...] ...]
 b. DP-subject_i [_{TP} e V-T ... [_{VP} ... *pro*_i ...] ...]

The only subject position that can license extraction is the VP-internal theta position, because this position can be c-commanded by the verb. The preverbal SpecTP position does not have these properties, as we saw above. We therefore conclude that *pro* does not move to that position but remains in the VP-internal theta position. The preverbal DP-subject is then reconstructed to this position and thus extraction from within it is licensed. If *pro* had moved to the SpecTP position, as the movement analysis predicts, then the DP-subject would reconstruct to this position and not to the VP-internal one and the grammaticality of example (28b) would remain unexplained. Thus, there is strong

evidence that *pro* in Greek is postverbal and it does not move to the SpecTP position, contra Cardinaletti's suggestion for Italian.

We therefore conclude that the movement analysis cannot account for the properties of Greek preverbal subjects, because it treats them in a similar way to the English ones, leaving a number of important differences unaccounted for. On the other hand it cannot explain the properties of Greek postverbal subjects, because it treats them similar to the Italian ones, leaving unaccounted for the fact that Greek exhibits VSO orders for almost all types of verbs and subjects. For these reasons, the movement analysis cannot be valid for Greek and we must seek a different analysis for Greek subjects.

7. The discontinuous-subject hypothesis

The properties of Greek 'subject' discussed in the previous section led to the apparently contradictory conclusion that while the SpecTP position exists in Greek (as evident in the expletive and subject control constructions discussed above), the *pro*/DP-subject does not move to occupy it. Thus, we are led to propose that 'subject' in Greek must be defined as an element which occupies both these positions at the same time, which means that Greek 'subject' is a discontinuous element. We call this analysis the discontinuous-subject hypothesis. It proposes that Greek 'subject' consists of (i) a null nominal element always projected to occupy the SpecTP position (the 'head'); let us take this to be a bundle of nominal features for the moment, and (ii) a DP-subject or a *pro* in the relevant VP-internal theta-position (the 'foot'). Thus, 'subject' in Greek is defined as in (30–31):

(30) $\langle \langle \text{person, number, case, ...} \rangle, \langle \text{pro/DP-subject} \rangle \rangle$

We will return to the question of the exact nature of the nominal element in the SpecTP position later. Let us first examine the nature of the linking between the

two ‘subject’ elements. We assume that it is a kind of an *Agree* α relation, as defined in Chomsky (2000, 2001). By means of this relation, the ‘head’ matches its features (person, number, gender, case) with those of the ‘foot’ (*pro*/DP-subject) and acquires their values, while inheriting its referential properties. It also performs the checking relations relevant to the ‘subject’ (nominative case and agreement), since it, being merged in the SpecTP position, is in a checking configuration with the head complex V-T. The nominative case feature of the *pro*/DP-subject is licensed by agreeing with that of the nominal element in the SpecTP position. Thus, checking performed by the head also satisfies the requirements of the foot. This is the reason for calling this kind of ‘subject’ a discontinuous subject.

Compare now the ‘subject’ element in Greek (32) and in English (33):

(32) $\langle\langle \text{person, number, case, ...} \rangle, \langle \text{pro/DP-subject} \rangle\rangle$

(33) $\langle \text{DP-subject}_i, t_i \rangle$

The important difference between the two languages is the status of the element that occupies the VP-internal theta position (the ‘foot’). In English it is an A-trace, i.e. a copy of the features of the DP-subject, which erases before LF in order for the derivation to converge (Chomsky 1995). On the other hand, in Greek it is a *pro*/DP-subject, which is a complete syntactic object and therefore does not erase. Thus, we derive the difference between English and Greek as far as the [*that t*] filter and the *subject condition* are concerned: In Greek the ‘subject’ can receive its interpretation in the VP-internal theta-position, a fact that can account for the [*that t*] filter and *subject condition* violations, whereas in English the ‘subject’ receives its interpretation only in the SpecTP position, which is not theta-governed, resulting in the [*that t*] filter and *subject condition* effects.

The *Agree* relation established by the nominal element in the SpecTP position and the *pro*/DP-subject in the relevant theta-position also enables the former to acquire the referential properties and the theta-role of the latter. This is justified by structures with expletive agreement, such as the impersonal and weather-verb constructions. In these constructions there is no appropriate theta-position to be occupied by a nominal element, i.e. a *pro* or a DP-subject, with which the nominal bundle of features in the SpecTP position could agree. This is shown by the fact that a strong pronoun is impossible in these structures:

- (34) a. (*afto) fenete [_{CP} *oti* *de* *tha* *erthi* *avrio* *i* *maria*]
 it seems that NEG FUT come-3SG tomorrow the Mary-NOM
 ‘It seems that Mary will not come tomorrow’

- b. (*afto) prepī [CP na prolavume to treno]
 it must-3SG SUBJ catch-1PL the train
 'We have to catch the train'
- (35) a. (*afto) vrexī
 it rains
 'It rains'
- b. (*afto) kani krio
 it makes cold
 'It is cold'

Strong pronouns can be generated in a theta-position. Thus, the impossibility of their occurrence in the cases above shows that no theta-position relevant to 'subject' is involved in the argument structure of these verbs, which contains only a complement clause in the case of the impersonal verbs or an implicit argument in the case of weather verbs. In these cases the nominal bundle of features in the SpecTP position cannot acquire referential properties and theta-role; it thus takes the default value of an expletive, being the source of the default subject-agreement of the verb.

To sum up so far, we proposed an analysis according to which 'subject' in Greek is a single discontinuous element consisting of two members, i.e. the nominal bundle of features in the SpecTP position and a *pro*/DP-subject in the relevant VP-internal theta position. This 'subject' element, though discontinuous, behaves as a single syntactic element, i.e. a single entity, although both of its constituents enter the Numeration as independent elements and are present at all the levels of the syntactic representation (interfaces). So if, for example, one member of this element is c-commanded by an element X, this X c-commands the whole discontinuous subject, even if it does not c-command its other member, and vice versa. This is illustrated in the following examples:

- (36) a. pjanu mu ipes oti i mitera efije kleyontas?
 whose I-GEN told-2SG that the mother-NOM left-3SG crying
 'Whose mother did you say left crying?'
- b. pjanu_i mu ipes [CP oti [DP i mitera t_i]_j [TP efije_k
 [VP *pro*_j t_k] [CL PRO_j kleyontas]]]]]
- (37) a. pjanu mu ipes oti efije i mitera kleyontas?
- b. pjanu_i mu ipes [CP oti [TP efije_k
 [VP t_k [DP i mitera t_i]_j] [CL PRO_j kleyontas]]]

Consider example (36). This is an apparent violation of the *subject condition* (extraction out of a DP-subject). The grammaticality of (36) has been consid-

ered to indicate that the DP-subject [*i mitera*] is at a peripheral position and receives its interpretation in the relevant VP-internal theta-position occupied by a *pro*. Since this VP-internal theta-position is theta-governed by the verb, which has overtly moved to the T head, extraction out of the DP-subject [*i mitera*] is allowed. At the same time, the embedded ‘subject’ controls the empty subject of the adjunct clause [*kleyontas*]. This is so even when the DP-subject [*i mitera*] occupies the VP-internal theta position (37), from which it is unable to c-command the adjunct clause. In such cases it is the nominal bundle of features in the SpecTP position that c-commands the adjunct clause and functions as the controller. To sum up, the examples (36–37) clearly show that Greek ‘subjects’ involve both the SpecTP and a VP-internal theta-position at the same time and the properties of the two positions become properties of the whole ‘subject’ element. The fact that the nominal bundle of features in the SpecTP position (the ‘head’) c-commands the adjunct clause enables the whole ‘subject’ element to also c-command it, although its foot (*pro*/DP-subject) cannot c-command it. Similarly, by c-commanding the ‘foot’ (*pro*/DP-subject) of ‘subject’, the verb also c-commands the whole of the discontinuous-subject, although it cannot c-command its ‘head’.

7.1 Discontinuous-subject and binding: Some problematic cases

Horrocks (1994) discusses the following examples, which seem to present complicated and conflicting evidence for the Greek clause structure:

- (38) a. *ayapai *pro*_i [ti mitera [tu jani]_i]_j
 loves the mother-ACC the John-GEN
 ‘He loves John’s mother’
 b. *ton_i ayapai [i mitera [tu jani]_i]_j
 he-ACC loves the mother-NOM the John-GEN
 ‘John’s mother loves him’
 c. %[i mitera tu jani]_i]_j ton_i ayapai
 the mother-ACC the John-GEN he-ACC loves
 ‘John’s mother loves him’

He is mainly concerned with example (38c). He notes that, in spite of the fact that this example is normally considered ungrammatical, some Greek speakers may consider it grammatical, especially if they think hard about it. His conclusion is that this indeterminacy can be explained if we assume that Greek speakers possess two competing grammars,¹⁶ one assigning A-bar status to

preverbal DP-subjects and the other considering preverbal DP-subjects as real 'subjects' i.e. that they occupy the SpecTP position. We believe that his observations provide further support for our analysis. We will accept his conclusion that the grammaticality of (38c) indicates that the SpecTP position exists in Greek as an A-position. However, unlike Horrocks, we will propose that even in these cases it is not occupied by the preverbal DP-subject. Looking more closely at the relevant examples, (38a) is ungrammatical by a *Condition C* violation: *pro* c-commands the DP-object [*ti mitera* [*tu jani*]] and subsequently cannot be coreferent with the DP *tu jani*:

Example (38b) is also ruled out as a *Condition C* violation. Overt movement of the clitic to the V-T complex results in a configuration where the clitic c-commands the DP-subject *i mitera tu jani* and thus the R-expression *tu jani* too.

Example (38c) is normally conceived of as ungrammatical. Given our assumptions that preverbal DP-subjects in Greek are A-bar elements linked with the main ‘subject’ element inside core clause structure, and more specifically with a *pro* in the VP-internal theta position, and thus interpreted there, example (38c) is ruled out as a C-Condition violation in the same way as (38b), since both examples have the same core clause structure (compare (40) with (41)):

However, as Horrocks (1994) has noticed, this example may be considered grammatical by some speakers, especially if they think hard about it. We suggest that this indeterminacy is due to the nominal bundle of features in the SpecTP position. This nominal bundle of features is not c-commanded by the clitic. The speakers who judge (38c) as grammatical take into consideration this fact, i.e. they somehow allow for the preverbal DP-subject to be interpreted in the SpecTP position, a position which is not c-commanded by the clitic. We conclude that the indeterminacy about the grammaticality of (38c) is due to the fact that the object clitic does not c-command the entire 'discontinuous subject' but only one of its members, allowing for the preverbal DP-subject to escape binding from it in these cases where it is interpreted as occupying the SpecTP position. We thus believe that this apparently problematic case offers further support for our discontinuous-subject hypothesis.

7.2 On the nature of the nominal element in the SpecTP position

We will now examine the exact status of the nominal element in the SpecTP position. Our basic assumption is that in Greek the pronominal status of the subject-agreement morphology is formally translated into a bundle of nominal features that occupies the SpecTP position and is linked by means of an *Agree* α

operation with a *pro*/DP-subject in the VP-internal theta-position in order to acquire referential properties and theta-role. Evidence from many sources has led us to suggest that this element functions as a full nominal element.

This bundle of nominal features being a nominal element may be argued to have the status of a null-pronoun. We have already presented enough evidence that it is not a *pro* moved from its original VP-internal theta-position to the SpecTP position to satisfy the strong D feature of T. We may suggest that it is a kind of clitic, i.e. a null-subject clitic. This suggestion seems to gain support from the fact that the discontinuous subject element (42) resembles the object clitic and clitic-doubling structures suggested in the literature for Romance, Hebrew, etc. (43) (Jaeggli 1986, Borer 1983):

(42) ⟨⟨subject-clitic⟩, ⟨*pro*/DP-subject⟩⟩

(43) ⟨⟨object-clitic⟩, ⟨*pro*/DP-object⟩⟩

We could therefore propose that Greek has subject-clitics on a par with object-clitics, though the former are phonologically null.¹⁷ This subject-clitic occupies the SpecTP position satisfying the strong D feature of T. Being null, it is licensed by the rich subject-agreement morphology of the verb by means of the Spec-Head configuration established between it and the verb in T.

However, the suggestion that the nominal element in the SpecTP position is a subject-clitic raises the question of the exact categorial status of this subject-clitic. Given the assumption that it occupies a Spec position it should be an XP. If so then it cannot be distinguished from *pro*, and we will end up proposing that Greek structure involves two pros! We may avoid the problem by accepting Chomsky's proposal that clitics are in fact hybrid structures of X/XP (Chomsky 1995). Given that *pro* is an XP, we derive their categorial distinction, while permitting the subject-clitic to occupy the SpecTP position.

An alternative analysis will be to adopt Manzini & Savoia's system of satisfying the EPP (Manzini & Savoia 1997). Their analysis is based on the following assumptions: a) EPP can be parametrised, i.e. the D feature associated with one of the INFL projections can be either strong or weak. b) There is a separate projection above INFLP, which they call INFLcIP, which is in fact the reflex of the D feature of the EPP and is parametrized so as to derive null-subject languages, subject-clitic languages and full-subject languages. c) A-movement is replaced by a kind of theta-role movement from the predicate to the DP-argument, which is directly merged in its surface A-position. Following this analysis it may be suggested that the Greek null subject-clitic is similar to the overt ones of the Northern Italian dialects. As such it merges to the

INFLcl head, satisfying its strong D feature (the EPP). From this position it can c-command the VP so that the effects of the EPP specifier can be derived.

In fact, Manzini & Savoia's system proposes the elimination of *pro* from the theory, and tries to derive its properties from the association of the INFLcl head with the V predicate by means of the covert movement of the relevant theta-feature from the VP to the INFLcl head. It is evident that the Greek structures discussed above, which clearly show the existence of a VP-internal *pro* in a theta-position, cannot be accounted for by such an analysis and constitute a counter-argument for the elimination of *pro*. Moreover, the postulation of a separate INFLcl functional category equally complicates the grammar since the same features are associated with two functional categories. In addition, the matching of the features of the subject clitic in INFLcl with those of the V in T becomes problematic, since these two elements are not in a checking relation, no Agree operation can be established between them, and the escape hatch of the covert movement of the relevant theta-feature is not available in Greek, because theta-roles are always satisfied by the VP-internal *pro* or DP-subject. We conclude that an analysis of Greek 'subject' in terms of the Manzini & Savoia system, while complicating the grammar, cannot account for the properties of Greek 'subject'.

Thus, the issue of its exact status remains open. We will stay with the hypothesis that it is a bundle of nominal features projected, licensed and identified by virtue of the rich subject-agreement morphology that acquires a syntactic status. We may push this hypothesis so far as to suggest that universally the specifier projected by the EPP is a nominal element itself consisting of a bundle of nominal features. The feature content of this specifier must be licensed and identified. This can be done in the following way: either the subject-agreement morphology of the verb is rich enough to license and identify it (e.g. Greek), or a movement operation applies which raises the DP-subject from its original VP-internal theta-position to occupy this specifier and identify its feature content (e.g. English). However, such a radical approach to EPP has far reaching consequences that need not concern us here. We leave the issue open to further research and we keep the more modest analysis outlined above.

8. Small clauses

Small clause is the term that describes the secondary predicative relation between a DP and a predicate, in most cases nominal. The prototypical configu-

ration is the following, though the term has been expanded to cover a wider range of secondary predication phenomena:

- (44) V DP XP
- (45) a. Mary considers John stupid
 b. French fans consider Jidane the best football player in the world
 c. I want your report on my desk by tomorrow

This predication relation between the DP and the XP seems identical to the one between the DP-subject and the verb of a full clause. Following the clausal theory of predication (Stowell 1983, 1991), we assume that the string [DP XP] is a clausal element, a *small clause*, the subject of which is the DP. The only difference between full and small clauses is that small clauses lack the Tense (INFL) node, and the consequent assignment of the nominative case to the subject. Such a theory implies that in each language the 'subject' behaves in the same way for both full and small clauses (Hoekstra 1988, Den Dikken 1995). Therefore, the analysis of the full clause 'subject' should cover small clause 'subject' as well.

8.1 The small clause structure

It is widely accepted that the small clause structure involves a predicative XP and one, or maybe more, functional categories above it (see the discussion in Cardinalletti & Guasti 1995; also Den Dikken 1995). The structure is as follows.¹⁸

- (46) [_{FP} F [... [_{XP} X] ...]]

The DP-subject realises the *R* theta role of the predicate X. According to the configurational approach to theta role assignment it should be generated inside the lexical domain XP of the predicate X (cf. the original proposal about the small clause structure by Stowell 1983):

- (47) [_{XP} DP-subject X ...]

However, complex evidence from predicate movement and binding domain effects (see Takano 1995, Williams 1994) show that this DP-subject occupies a position outside and higher than the lexical domain of XP. By analogy to the full clauses, we assume that this position is an A-specifier position of the higher FP, projected by the EPP requirement of the clause (i.e. a strong D feature on F). This assumption is reinforced by the observation that this position is not a theta-position, as passive constructions show:

- (48) I want [the message]_i delivered t_i at once

It is also a non L-marked position as subject condition effects show:

- (49) a. ?*[Which film]_i did you find [the ending of t_i] bad
b. *Of whom_i do you believe the older sister t_i to have left

It is further justified by the fact that we can find small clauses with expletive subjects (Webelhuth 1995, Authier 1991):

- (50) a. I find it strange that Mary didn't say anything
b. It surprises me that Mary didn't say anything

We may thus conclude that in small clauses too, there is a strong D feature on the functional category FP realizing the EPP and projecting a specifier position that must be occupied by a 'subject' nominal element. The small clause structure proposed is the following:

8.2 The structure of Greek small clauses and the definition of 'subject'

Greek small clauses seem to have the same characteristics as the full ones as far as their DP-subject is concerned. Despite the fact that predicate movement and binding domain effects suggest that the DP-subject is outside the XP (see Spyropoulos 1998 for a discussion), we cannot assume that the DP-subject occupies the SpecFP position projected by the D feature of F, because it can appear in different positions.

- (52) o janis theori ti maria eksipni
the John-NOM consider-3SG the Mary-ACC intelligent-FEM,SG,NOM
(ti maria)
the Mary-ACC
'John considers Mary intelligent'

Further, it cannot be a strong pronominal:

- (53) a. *o janis theori esena eksipno
 the John-ACC consider-3SG you-ACC intelligent-MASC,SG,ACC
 ‘John considers you intelligent’
 b. o janis theori esena eksipno

Strong pronominals in Greek full clauses are either focalised or constitute contrastive topic elements, and they never occupy the SpecTP position, since this position, according to our proposal, is reserved for the subject-clitic element. The fact that in small clauses too the strong pronominals cannot appear with the neutral reading suggests that they cannot occupy the SpecFP position. This means that no DP-subject can occupy this position. This is further reinforced by the fact that Greek small clauses do not present *subject condition* effects:

- (54) a. [pjanis tenias]_i theoris [to telos t_i] xazo?
 which film-GEN consider-2SG the ending-ACC stupid-NEUT,SG,ACC
 b. ?* Of which film_i do you consider the ending t_i stupid?

So we can conclude that the same situation holds for small clauses as for full ones. Thus, we propose that there is a strong D feature on F, which projects an EPP SpecFP position that is occupied not by a lexical DP but by a subject-clitic. Such an analysis explains the freedom and the adjunct status of the DP-subject as well as the extraction phenomena.

The A&A analysis fails to account for the small clause ‘subject’ in Greek because their assumption that for full clauses the D feature of T is satisfied by the personal agreement morphology of the verb cannot be extended to apply to small clauses too, since the predicate here does not carry personal inflection and thus cannot satisfy the strong D feature of the FP. Besides, in small clauses there is no clear evidence that the head X of the predicate phrase moves to F overtly, allowing a checking relation to be established between the X and the F. More importantly, it is hard to see how other types of predicates occurring in small clauses, such as a preposition predicate (55), which lacks inflection, could be said to carry a nominal feature that could check the strong D feature of the FP.

- (55) thelo tin anafora su [sto yrafio mu avrio]
 want-1SG the report-ACC you-GEN in.the desk-ACC I-GEN tomorrow
 ‘I want your report on my desk by tomorrow’

The analysis we have proposed for the full clauses can be extended to account for the small clause situation in a straightforward way. We summarise this as follows:

The SpecFP position is projected and it is occupied by a subject-clitic. This

clitic agrees with a *pro* generated inside the lexical domain of the predicate and realising the *R* theta role. The DP-subject occupies a peripheral position adjoined to the FP, and is licensed by being linked with the [subject-clitic-*pro*] discontinuous-subject. The violation of the subject condition is explained by the fact that the DP-subject is reconstructed to the *pro* position, which is L-marked by the predicate (56):

The unified analysis of full and small clauses constitutes a further piece of evidence in favour of the discontinuous-subject hypothesis.

8.3 Small clauses with clitics

Small clauses offer further support for our analysis since they provide cases in which the subject-clitic is phonologically overt. These are cases in which the 'subject' of the small clause is realized as an explicit pronominal clitic, adjoined to the main verb. Let us consider the following examples:

- (57) a. to jani *(ton) θeoro eksipno
 the John-ACC he-ACC consider-1SG clever-MASC,SG,ACC
 'As for John, I consider him clever'
 to jani (with neutral reading, i.e. no focus)
 b. ton θeoro eksipno
 c. *θeoro eksipno

In example (57a) the DP-subject of the small clause is adjoined to the matrix clause. In this case it needs to be supported by a clitic. Given that clitics in Greek are the proper arguments in a clitic-doubling structure¹⁹ and that the clitic is not thematically associated to the main verb, we conclude that the clitic in (57a-b) comes from the small clause. It is actually the subject-clitic spelled out as an overt pronominal clitic. Its obligatory appearance in (57) follows from

the nature of the linking: the DP-subject must be linked with a pronominal 'subject' element from its predication domain and this linking must be local. The clitic satisfies this locality requirement by means of its overt movement to the matrix clause verb (it is adjoined to the V-T head).

Consider example (57b) now, in which the DP-subject is missing. This structure is parallel to the null-subject one in full clauses. Example (57c) shows that the subject-clitic must be overtly spelled out as a pronominal clitic, unlike the situation in full clauses in which it is not overtly realised. The reason is quite simple and follows naturally from our theory of subject and agreement in Greek. The subject-clitic is a bundle of nominal features (person, number, gender and case) and thus it needs to be identified. In full clauses the existence of the rich person and number morphology marked on the verb provides it with the necessary phonological realisation of its person and number features, so that it can remain phonologically null. In small clauses on the other hand, the predicate at best carries only number, gender and case morphology. Thus the person features cannot be identified. Person features seem to be the most important properties for the identification of a null element. But the subject-clitic in a small clause fails to identify its person features because there is no person agreement morphology marked on the predicate. Therefore in order for the person feature of the subject clitic to be realised in the small clause a weak pronominal is introduced obligatorily in the form of an overt clitic pronoun (*ton*). Strong pronominal forms are excluded. That the obligatoriness of the clitic pronoun (*ton*) in these small clause examples is motivated by the need of the subject clitic to visibly realise the person feature is further justified by the fact that in copular structures, which involve a small clause complement to the copula verb *ime* 'to be', the subject-clitic of the small clause is not realized as a clitic pronoun because by moving to the SpecTP of the main clause its person property is identified by the agreement morphology of the verb:

- (58) a. *ine eksipnos*
 is clever-MASC,SG,NOM
 'He is clever'
 b. [_{TP} SUBJ.CL_i *ine* [_{FP} t_i [_{AP} *pro*_i *eksipnos*]]
- (59) a. John is intelligent
 b. [_{TP} *John*_i *is* [_{FP} t_i' [_{AP} t_i *clever*]]

It should be noted, however, that when the DP-subject is adjoined to the small clause, i.e. it is inside its domain, as in example (60), the subject-clitic is not realised as an overt pronominal clitic. In this case the linking between the

DP-subject and the discontinuous 'subject' seems to be local and therefore the features of the DP-subject can identify those of the subject-clitic, which in turn need not be realised overtly.

- (60) *θεορο (to jani) eksipno (to jani)*
 consider-1SG the John-ACC clever-MASC,SG,ACC the John
 'I consider John intelligent'

An even stronger piece of evidence for the existence of the subject-clitic derives from examples like:

- (61) **(to) θεορο epikinδino [na perpatas*
 it-ACC consider-1SG dangerous-NEUT,SG,ACC SUBJ walk-2SG
moni su to vraði]
 alone-FEM,SG,NOM you-GEN the night-ACC
 'I consider it dangerous for you to walk alone at night'

The clitic *to* here, which is the overt realisation of the subject-clitic, is an expletive one. The clause [*na perpatas ...*] is the complement of the adjective *epikinδino*. The clitic here has no referential properties. It does not refer to any linguistic or non-linguistic antecedent and so it cannot be doubled by a strong pronominal:

- (62) **afto to θεορο epikinδino na perpatas moni su to vraði*

Therefore there is no *pro* generated inside the lexical domain of the predicate because the predicate has no theta-role to assign to it. The situation is parallel to the impersonal structures we examined above. The existence of the clitic here shows that this is not the *pro*, but rather a separate element, i.e. an expletive, which constitutes strong evidence for the existence of the subject-clitic in an EPP specifier. In full clauses the overt morphological manifestation of person and number in the verbal morphology allows this subject-clitic to be phonologically null, even when it is an expletive. The fact that we can find an overt realisation of this element by means of a clitic, and especially by means of an overt expletive subject-clitic, in small clauses provides the necessary empirical justification for the proposal that the strong D feature of TP/FP (i.e. the EPP relevant to the 'subject') is satisfied by projecting a Specifier position which is occupied by a nominal bundle of features, i.e. the subject-clitic.

9. Conclusion

We presented an analysis of ‘subject’ and subject-agreement in Greek that attempts to capture formally their special nature and their close association both in full and small clauses. Following the recent assumptions of syntactic theory for autonomy of the syntactic component and stability of its universal principles, we tried to provide an account for the fact that although the ‘subject’ in Greek does not have the same properties as that of configurational languages like English, nevertheless the structure of the language respects the universal value of syntactic principles such as the EPP. Through our analysis the strong D feature of the T expressing the EPP is satisfied by projecting a SpecTP position that c-commands the VP and is able to establish a predication relation with it. Moreover, the notion ‘subject’ in Greek is defined by means of the morphological strength of the agreement morphology. Languages with rigid syntax and poor inflectional morphology, such as English, and languages with free syntax and rich inflectional morphology like Greek share the same syntactic configurations; the aspect in which they differ is that in the first the lexical DPs must fulfil these grammatical roles, whereas in the latter rich morphological information can acquire syntactic status and function as the element fulfilling syntactic roles and relations. The autonomy of syntax and morphology is maintained since a syntactic notion is not suspended under the pressure of morphology. Rather the interaction of these modules forces a functional/grammatical element to acquire syntactic status and as a result of this to occupy a syntactic position.

Notes

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1. The Extended Projection Principle (EPP) was originally proposed by Chomsky (1982) as a formal requirement of the clause to have a certain position in the syntactic configuration outside the VP, which will host the DP-subject. In the Minimalist Program (Chomsky 1995), this formal requirement has been attributed to the existence of a strong functional feature in TP that projects a SpecTP position to be satisfied either by the overt movement of the DP-subject from the VP or the direct merge of an expletive. Recently, the notion of the EPP

as a strong functional D feature which projects a specifier has been extended to other functional categories and has been associated with the notion of *phase* (Chomsky 2000, 2001). However, we believe that the predominant role of the EPP was to facilitate the notion of 'subject', and it is with this interpretation that it is used in this paper.

2. For more on the Greek verbal system see Holton, Mackridge & Philippaki-Warbuton (1997).
3. See Spyropoulos (2001) for a discussion of these structures.
4. See Alexiadou & Anagnostopoulou (1998) and Spyropoulos (2000) for an overview.
5. For alternative analyses of Greek clause structure see Rivero (1994), Rivero & Terzi (1995), Drachman & Klidi (1992), and Roussou (2000).
6. For more evidence see Philippaki-Warbuton (1994b), Philippaki-Warbuton & Catsimali (1999) and Philippaki-Warbuton & Spyropoulos (2001).
7. Alternatively it can be assumed that the DP-subject occupies the specifier position of a Topic Phrase in a split-Comp system (see Roussou 2000). We will not consider this option here since it is not relevant to our discussion.
8. This linking has been conceived as an instance of coindexation. However, coindexation is no longer an available mechanism in Minimalism. On the other hand, this kind of linking cannot be subsumed by the operation *Agree*. Since we have no alternative to propose here we leave the issue open and we will use the term *linking* in order to preserve theoretical consistency.
9. For some counterexamples and their explanation see Tsimpli (2000).
10. We will not get into the details of the exact nature of the null-subject of the gerund clause. We simply assume that it is a PRO given the non-finite character of the Greek gerund. However we do not exclude the possibility of this null-subject being a *pro*. The issue will be left open for further research. For more details see Tsimpli (2000) and Haidou & Sitaridou (2001).
11. The strongest argument derives from the fact that subject-agreement morphology in Greek is in most cases fused with that of tense, so that they are not separable since a single affix realises both of them. Thus, an analysis which treats subject-agreement as a syntactic affix must also treat tense affixation in these cases as a matter of syntax. Such a position will treat different parts of inflection in different ways. Thus, voice and aspect are affixed in morphology, whereas tense and subject-agreement would be affixed in syntax. But then, there is no way to account for the selection requirements that voice and aspect pose on the form of the tense and subject-agreement affix (see the forms in (i)), because these two affixation processes, would belong to different modules (subject-agreement and tense in syntax — voice and aspect in morphology):

(i)	a.	PRES, IMPERF, ACT:	ɣraf-o, ɣraf-is, ɣraf-i, etc.
		PRES, IMPERF, PASS:	ɣraf-ome, ɣraf-ese,
ɣraf-ete, etc.
	b.	PRES, IMPERF, PASS:	ɣraf-ome, ɣraf-ese,
ɣraf-ete, etc.
		PAST, IMPERF, PASS:	ɣraf-omuna, ɣraf-osuna,
ɣraf-otane, etc
		PAST, PERF, PASS:	ɣraftik-a, ɣraftik-es,

γraftik-e, etc.

12. Notice that the object clitic in (16) is in a configuration such that it can c-command the VP, following recent definitions of c-command (Kayne 1994).
13. In the more recent framework this covert raising will be replaced by an *Agree* operation.
14. See Manzini (1995) and Roussou (2002) for some suggestions.
15. This observation is implicit to the most recent reformulation of subadjacency and ECP by means of the strict cyclicity of the operations (Nunes & Uriagereka 2001).
16. The proposal that the speakers of a language may possess two (or perhaps more) competing grammars, depending on their systematic difference in grammaticality judgements is not without problems and we would like to state that we do not commit ourselves to such a position, except from the case of language change (Kroch 1989). Obviously, we feel that thinking hard about a sentence is not the best method of giving a grammaticality judgement, which tend to be slippery in such environments. Our judgement is that sentence (38c) is ungrammatical. However, we also accept Horrocks' observation that it may be conceived as grammatical. In fact, our analysis of this difficult case does not incorporate Horrocks' analysis of two competing grammars. Instead our analysis explains this indeterminacy in terms of one grammar. It is the nature of the discontinuous subject with its two nominal elements in the relevant 'subject' positions that permits this indeterminacy, as described in the text. We thank Brian D. Joseph for bringing this very important issue to our attention.
17. We will not attempt a comparison between Greek and its proposed null-subject clitic and those Romance languages (French, Italian dialects like Fiorentino or Trentino) which have overt subject clitics. See Spyropoulos (2000) for details.
18. The exact nature of the functional category F has not been convincingly identified yet. See Spyropoulos (2000) for a discussion of the existing proposals.
19. For arguments see Philippaki-Warburton (1977, 1994a), Philippaki-Warburton & Spyropoulos (1999).

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Περίληψη

Στην παρούσα μελέτη επιχειρούμε να δώσουμε ένα τυπικό ορισμό της έννοιας του 'υποκειμένου' στην Ελληνική. Παρατηρούμε ότι κάποια συντακτικά φαινόμενα ερμηνεύονται μόνο αν υποθέσουμε ότι και στην Ελληνική η Αρχή της Διευρυμένης Προβολής λειτουργεί προβάλλοντας μια θέση [Χαρ, ΦΧΠ] η οποία φαίνεται να φιλοξενεί το υποκείμενο. Κάποια άλλα φαινόμενα όμως ερμηνεύονται μόνο αν υποθέσουμε ότι το υποκείμενο διατηρεί τη θεματική του θέση μέσα στη Ρηματική Φράση (ΡΦ). Προτείνουμε ότι για να ικανοποιηθούν οι αντικρουόμενες αυτές περιγραφικές ανάγκες ο όρος του 'υποκειμένου' πρέπει να θεωρηθεί ως ένα ασυνεχές στοιχείο που αποτελείται από δύο συστατικά: ένα μηδενικό ονοματικό συστατικό (κλιτικό υποκείμενο) στον κόμβο [Χαρ, ΦΧΠ] και ένα *pro* στην κατάλληλη θεματική θέση μέσα στη ΡΦ τα οποία και συνδέονται με ένα μηχανισμό συμφωνίας.