

**In the mood for control**

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### Abstract

The aim of this paper is to provide an account of *na*-clauses in Modern Greek, by focusing on the properties of the mood particle *na* and its relation to the subject it embeds. It is argued that *na* has the effect of subsuming the lexical realization of the subject and mediate (along with verbal agreement) its interpretation. In control contexts, clause-union takes place which identifies the embedded (unrealized) subject with one of the matrix arguments. In non-control contexts, where no clause-union is at stake, free reference is the available option. It is also argued that the same approach can extend to *to*-complements in English. Any differences between the two grammars further relate to the presence vs. absence of verbal agreement.

**Keywords:** control, (in)definiteness, infinitive, lexicalization, modality, subjunctive.

### 1. Introduction

A basic property of Modern Greek (MG), which is by and large shared by the other Balkan languages as well, is the absence of infinitives and the use of finite forms in those contexts where the Romance (and Germanic) languages use the infinitive. The finite clauses of this type are characterized as ‘subjunctive’, and are introduced by a particle (glossed as ‘prt’) followed by the finite verb (for an overview see Joseph 1983, Terzi 1992, Rivero 1994). Consider for example the MG data in (1) below:

- (1) a. *na trexi* (-past, -perfective)  
prt run-3s  
“He must run”, “It is possible that he’s running.”  
b. *na treksi* (-past, +perfective)  
prt run-3s  
“He must run”  
“Can he run?”  
c. *na etrexe* (+past, -perfective)  
prt ran-3s  
“I wish he were running”  
“Could it be the case that he was running?”  
d. *na etrekse* (+past, +perfective)  
prt ran-3s  
“I wish he had run”  
“Is it possible that he ran?”

A number of different readings arise, depending on the verbal specification (+/-past, +/-perfective), the clause-type (i.e. interrogative or not, see Rouchota 1994), and the distribution of *na* in a root or embedded context.

A comparative approach to *na*-clauses raises the following questions: first, how do the forms in (1) compare to the Romance-type subjunctive, and second, how do they compare to infinitives? Both questions are addressed by Quer (2007), and will form the background of the present discussion. The answer to the first question can shed some light on the formal notion of mood, irrespectively of its morphosyntactic realization. The answer to the second question can lead to an account of the similarities with infinitives in relation to the notion of

finiteness. The latter becomes even more important once we consider phenomena such as control that typically require a non-finite context, but nevertheless involve a finite ‘subjunctive’ context in MG (and the rest of the Balkan languages), as in (2):

- (2) O Kostas *emathe na odhiji*.  
 the Kostas learnt-3s prt drive-3s  
 “Kostas learnt (how) to drive.”

Control cannot be seen independently of the predicate that selects a *na*-complement. For example, substituting *emathe* for volitional *theli* (‘wants’) has a different effect on the interpretation of the subject, as illustrated in (3) below:

- (3) O Kostas *theli na odhiji*.  
 the Kostas want-3s prt drive-3s  
 “John wants (him) to drive.”

The English translation of (3) shows that the embedded subject could be coreferential with that of the matrix clause (i.e. *o Kostas*), but it doesn’t have to. The construction in (3) brings in another dimension that distinguishes Balkan from Romance complementation. As has been extensively discussed in the literature (Picallo 1985, Kempchinsky 1986, Farkas 1992, Terzi 1992), a subjunctive complement to a volitional predicate in Romance triggers a subject obviation effect (cf. the French example in (4)):

- (4) a. \*Je veux que je parte  
 I want-1s that I leave.subj-1s  
 b. Je veux partir.  
 I want-1s leave.inf.  
 “I want to leave.”

While the infinitive in (4b) creates a control context, the subjunctive in (4a) triggers an anti-control effect (obviation). Given that control in MG is only possible inside a finite ‘subjunctive’ clause, the answers to the questions raised above regarding the similarities and differences between *na*-clauses on the one hand, and Romance subjunctives and infinitives on the other, cannot be seen independently of other syntactic phenomena.

In the present paper I focus on the properties of the ‘subjunctive’ particle *na* and its relation with the subject it embeds. Within this context, my aim is twofold: first, to address some of the questions raised by Quer (2007) regarding the properties of mood as a syntactic category and its parametric manifestations, and second, to provide a better understanding of control in finite contexts and in general.

The paper is organized as follows: Section 2 provides a rather detailed discussion of the distribution of *na*-complements, as well as an account of the properties of *na* itself and how it may differ from the morphological subjunctive that we find in Romance languages. Section 3 presents the basic proposal, namely that *na* suffices to lexicalize the D (EPP) feature associated with the subject position. The lexicalization parameter that affects *na* and the subject can be pinned down to the +/-definiteness feature that characterizes both *na* (as a mood particle) and the D feature of the subject position. The notion of (in)definiteness then can be manifested either as a particle escorting the verb (MG), or as part of the verbal morphology (Romance). Moreover, following Tsoulas (1994), Baker & Travis (1997), among others, we can replace the +/-realis specification with that of +/-definite, allowing for a unification of features in the verbal and nominal domains. Section 4 discusses control, based

on the idea that the interpretation of the subject is mediated by the particle *na*; in control complements, the anaphoric interpretation assigned to the embedded subject is a by-product of the interpretation assigned to the *na*-clause itself. The distinct location of the relevant features (particle vs. verbal morphology) can be held responsible for other parametric differences (cf. obviation effects). Section 5 focuses on the comparison between *na*- and English *to*-infinitives as well. It is argued that *to* shares the basic set of properties of *na* with respect to mood and the D feature of the subject. Control is then derived without the mediation of specialized empty categories, such as PRO, pro, or even an A-trace/copy. The individual differences between the two grammars are argued to follow from the presence vs. absence of inflection on the verb in *na*- and *to*-clauses respectively. As a result, the set of complements that exhibit control in MG is more restrictive compared to English (and possibly Romance), since the former, but not the latter, always provides an independent lexicalization of the subject through verbal agreement. Section 6 concludes the discussion.

## 2. The ‘subjunctive’ in MG

### 2.1. The distribution of *na*-complements

The basic mood opposition in MG is that of +/-imperative. In other words, verbal morphology distinguishes between two mood paradigms, that of the +imperative (only in the 2<sup>nd</sup> person singular and plural), and that of –imperative (for all persons). The –imperative can also be characterized as the indicative paradigm, as it involves no other distinctions. As already pointed out in section 1, verbs in MG inflect for aspect (actually marked only for perfective aspect on the stem), tense and agreement; agreement is sensitive to the +/-past tense distinction, giving rise to two paradigms. The morphology of the MG verb is illustrated below with the verb *trexo* (‘run’) in all persons:

- (5) a. +Imperative:  
*Imperfective*: *trex-e*, *trex-(e)te*.  
*Perfective*: *trek-s-e*, *trek-s-(e)te*
- b. –Imperative, –Past  
*Imperfective*:  
*trex-o*, *trex-is*, *trex-i*, *trex-ume*, *trex-ete*, *trex-un*  
*Perfective*:  
*trek-s-o*, *trek-s-is*, *trek-s-i*, *trek-s-ume*, *trek-s-ete*, *trek-s-un*
- c. –Imperative, +Past  
*Imperfective*:  
*etrex-a*, *etrex-es*, *etrex-e*, (e)*trex-ame*, (e)*trex-ate*, (e)*trex-an*  
*Perfective*:  
*etrek-s-a*, *etrek-s-es*, *etrek-s-e*, (e)*trek-s-ame*, (e)*trek-s-ate*, (e)*trek-s-an*

The +past tense formation in (5c) also involves stress shift to the anti-penultimate syllable; in bisyllabic formations, the prefix (‘augment’) *e-* is used to carry the stress. The –past, +perfective verbal form in (5b) is described as ‘dependent’, since it cannot appear as a free morpheme, but has to be licensed by *na* or ‘future’ *tha* or some other designated element (see Holton et al. 1999: 220-222, Tsangalidis 2002, Giannakidou 2007).

It is clear from the above discussion that MG has no morphological subjunctive, in the sense that it does not have an inflectional paradigm that would be characterized as such. In this respect then it differs from the Romance languages, which morphologically distinguish between indicative and subjunctive; it also differs from its predecessor, namely Classical Greek which had a four way mood system (indicative, subjunctive, optative, imperative). In the absence of any such morphological distinction, the particle *na* has been treated as the

equivalent of the ‘subjunctive’ marker (a property which also seems to be shared with the root-clause particle *as*; see Giannakidou (2007)), as initially proposed by Veloudis & Philippaki-Warbuton (1983) (and later assumed by Tsimpli 1990, Terzi 1992, Rivero 1994). As far as the verbal form that follows *na* is concerned, it can simply be characterized as the indicative, for the purposes of morphology at least (Lightfoot 1979, Tsangalidis 2002). The next question concerns the position of the *na* particle in the clause-structure, namely whether it is situated in the I or the C domain; this has been a rather controversial issue in the relevant literature. We will discuss this point in more detail in section 3.

With respect to the distribution of *na*-clauses, we observe that they can appear both in root and embedded contexts. As already pointed out in (1), root *na*-clauses give rise to a number of modal readings, depending on a number of interacting factors. In this respect, they have a typical subjunctive distribution. On the other hand, *na*-clauses may also appear in embedded contexts, as complements to various predicates. Generally speaking, *na*-complements may appear after the following classes of predicates:

- (6) a. *Modals*: *prepi* (must), *bori* (can/may), ...
- b. *Aspectuals*: *arxizo* (start), *stamato* (stop), ...
- c. *Volitionals*: *thelo* (want), *epithimo* (desire), ...
- d. *Perception verbs*: *vlepo* (see), *akuo* (hear), ...
- e. *Verbs of mental perception*: *thimame* (remember), *ksexno* (forget)
- f. *Psych verbs*: *xerome* (be pleased), *lipame* (be sorry), ...
- g. *Epistemic predicates*: *pistevo* (believe), *nomizo* (think), ...
- h. *Verbs of saying*: *leo* (say), *dhiatazo* (order), ...
- i. *Verbs of knowing*: *ksero* (know), *matheno* (learn), ...

The predicates in (6a-c) can only take a *na*-complement. The rest of the predicates may also take a complement clause introduced by the declarative complementizer *oti*, or (factive) *pu*, or interrogative *an* (see Roussou 2006).

In traditional grammars (see Tzartanos 1963: 8), the category of ‘volitionals’ is rather vaguely defined, given that it also includes verbs like *prospatho* (‘try’), *kataferno* (‘manage’), *epidhioko* (‘attempt’), *apilo* (‘threat’), *ipoxome* (‘promise’), etc., which are not volitional. Some of these predicates (e.g. *prospatho*, *kataferno*) may only take a *na*-complement, while others (e.g. *apilo*, *ipoxome*) may alternate between an *oti*- and a *na*-complement. On the other hand, Holton et al. (1999: 451-454) define a different class, the so-called ‘future-referring’ predicates (wishing, desiring, planning, requesting, etc.), of which volitionals form a proper subset. For purposes of clarity, I will follow their terminology, and refer to the predicates in (6c) as ‘future-referring’, keeping the term ‘volitional’ for the relevant subset within this category.

Leaving perception verbs in (6d-e) and factives in (6f) aside<sup>1</sup>, we observe that the epistemic predicates in (6g) may take a *na*-complement, provided the matrix verb is in the present tense; in the case of *nomizo* (‘think’) some propositional operator, such as negation or question may also be required (see (7a)). With verbs of saying (6h), the *na*-complement corresponds to an embedded imperative (see (7b)). Finally, verbs of knowing (6i) acquire a modal (dynamic) reading when they take a *na*-complement (see (7c)):

<sup>1</sup> We leave them aside because they permit all types of complements, and a full discussion would take us beyond the limits of the present paper. For an analysis of *na*-complements with perception verbs, see Giannakidou (2007); for a more descriptive account see Roussou (2006).

- (7) a. Dhen nomizo *na/oti* efije.  
not think-1s prt/that left-3s (could have) left.”  
“I don’t think that she left.”
- b. Tu ipa *na* fiji / *oti* efije.  
him told-3s prt leave-3s/that left-3s  
“I told him to leave.” / “I told him that she had left.”
- c. Kseri *na* odhiji / *oti* odhji.  
know-3s prt drive-3s/ that drive-3s  
“He knows (how) to drive.” / “He knows that she drives.”

The construction in (7a) has a number of distinctive characteristics: first, the embedded verb can be in the past tense; second, the matrix verb has to be in the present tense (-past, -perfective), and preferably in the first person singular; third, negation or question in the matrix clause may also be required for the licensing of the *na*-complement. The selection of *na* then is subject to the lexical (epistemic) as well as the inflectional properties of the matrix verb, escorted by an appropriate propositional operator, if necessary. Within this context, the *na*-clause may also carry past tense. The matrix verb in this case is interpreted as the equivalent of an epistemic modal, i.e. “according to what I believe/think it must/cannot be the case that...” (Veloudis 1985, Roussou 1999). Notice that no such reading arises when the complement is introduced by *oti*. Thus epistemic modality derives through the lexical properties of the verb along with the *na*-complement.

The *na*-construction in (7b) has different characteristics, and most importantly does not allow for past tense. In terms of interpretation, it corresponds to an embedded imperative; thus it has the modality associated with imperatives. The *oti*-complement, on the other hand, corresponds to an embedded declarative (reported speech). Finally, in (7c) the *na*-complement gives rise to a dynamic modal reading (ability), which is absent when *oti* is present; instead *oti* is more compatible with the factive reading of *ksero*. In both (7b) and (7c) the triggered modality is a by-product of the lexical properties of the matrix predicate (inflection plays no role here) and the *na*-clause. Of the three classes above, only the *na*-complement that appears with epistemic predicates can be characterized as the equivalent of ‘polarity’ subjunctive, namely the subjunctive that is licensed by an operator that can also license polarity items, such as negation or question (Stowell 1993, Quer 1998; on slightly different formulations see Tsoulas 1994, Manzini 2000). In the other two cases (verbs of saying and knowing), the *na*-complement can be directly associated with the lexical properties of the selecting predicate, and in this respect it is closer to an infinitive.

Let us next turn to the categories of modal (6a) and aspectual (6b) predicates. At a first approximation, the presence of a *na*-complement with aspectuals seems to be rather problematic. While in the cases we have considered so far, there seems to be some sort of modality involved, this is not the case with aspectuals. Furthermore, the embedded predicate is inflectionally restricted not only in terms of tense (-past), but also in terms of aspect (-perfective), as shown in (8):

- (8) a. Arxizo *na* grafo / \*grapso / \*egrafa / \*egrapsa.  
begin-1s prt write.imp.-1s/perf.-1s/wrote.imp.-1s/perf.-1s  
“I begin to write.”
- b. Arxisa *na* grafo / \*grapso / \*egrafa / \*egrapsa.  
began-1s prt write.imp.-1s/perf.-1s/wrote.imp.-1s/perf.-1s  
“I began to write.”

If *na* is a modal particle (‘subjunctive’) the question is what allows it to appear in this context, where we typically find an infinitive in Romance. At this point of our discussion, it probably becomes obvious that we need to define the modal/‘subjunctive’ character of *na*. I will consider this issue in section 3 (for a semantic approach, see Giannakidou (2007)).

Consider next modal verbs in (6a) which, just like aspectuals, can only take a *na*-complement. The different modal readings that arise depend on the inflectional properties of the matrix clause, combined with those of the embedded; see the following examples:

- (9) a. O Kostas bori *na* odhiji (tora).  
the Kostas can-3 prt drive-3s (now)  
“Kostas can (now) drive.”/ “It is possible that Kostas is driving now.”
- b. O Kostas bori *na* odhijise.  
the Kostas may-3s prt drove-3s  
“It may be the case that Kostas drove.”
- d. O Kostas borese *na* odhijisi.  
the Kostas could-3s prt drive-3s  
“Kostas could/was able to drive.”

The modal *bori* in (9a) can be construed as either a dynamic (ability, permission) or an epistemic (possibility) one. Note that both the matrix and the embedded predicates are in the present tense (-perfective). If the embedded predicate becomes +perfective (i.e. *odhijisi*) then the dynamic reading is strongly preferred. In (9b), the modal remains in the present tense, while the embedded verb inflects for past (+perfective) tense. In this case, only the epistemic reading is possible. Recall that this is indeed the pattern found with the epistemic predicate in (7a) when it takes a *na*-complement. Thus epistemic verbs with *na* and epistemic modals have the same syntactic properties. Finally, the modal in (9c) is in the past tense, while the embedded verb is –past (+perfective), and only the dynamic modal reading is available. We therefore observe that while modals can only take a *na*-complement, the different readings that arise are morphosyntactically distinguished by the variety of inflectional combinations in the matrix and embedded clauses (see also Iatridou 1990).

Having outlined the basic environments where *na*-complements primarily appear let us next consider which ones qualify for control.

## 2.2 Control and *na*-complements

Let us start by discussing modals and aspectuals, which can only take a *na*-complement. Consider first the modals in (10) below:

- (10) a. Ta pedhja boresan *na* treksun/\*treksi.  
the children could-3p prt run-3p/run-3s  
“The children were able to run.”
- b. Ta pedhja bori *na* etreksan.  
the children can-3s prt run-3p  
“It is possible that the children ran.”

A couple of clarifications are required with respect to (10a-b): recall that past tense on the modal yields dynamic modality, while past tense on the embedded verb yields epistemic modality; thus (10a) converges with a dynamic modal reading, while (10b) with an epistemic one. Furthermore, there is agreement-feature matching between the matrix and the embedded predicate in (10a), and a further agreement with the DP *ta pedhja* in the matrix clause. Agreement mismatch in terms of number for example in the embedded clause (i.e. *treksi*)

gives rise to ungrammaticality. The DP *ta pedhja* is thematically interpreted with respect to both predicates: the embedded predicate attributes them the property of running, while the matrix modal the property of having the ability to carry out this event. In this respect then, we have a typical control configuration. In (10b), on the other hand, there is no agreement between the two predicates: the matrix is in the singular, while the embedded in the plural, agreeing with the DP *ta pedhja*. Given the pro-drop character of MG, the DP can be easily understood as a topic (see Philippaki-Warbuton 1979, Iatridou 1993). The construction in (10b) is usually described as an impersonal one; moreover, the DP *ta pedhja* can only be thematically construed with the embedded predicate. The modal, being epistemic, does not attribute a property to the DP, but instead expresses the speaker's attitude (possibility) towards the proposition expressed. The epistemic modal then seems to behave like a raising verb, in the sense that it has no external argument, while the dynamic modal behaves like a control one (see Ross (1969) on English modals, Zubizarreta (1982) for a general discussion, and Wurmbrand (2001) for a different view). Bearing in mind that these observations may be restricted to languages like MG where modals have the properties of main verbs and take a full CP complement, we can expect that modals may behave differently in other languages.

The next class to consider is that of aspectuals, as in (11):

- (11) Ta pedhja arxisan na trexun/\*trexi.  
the children began-3p prt run-3p/run-3s  
"The children began to run."

Once again there is obligatory coreference between the matrix and the embedded subject, as manifested by the obligatory agreement-feature matching between the two predicates. The DP is interpreted thematically with respect to both predicates. The agentivity of the DP in relation to the verb *arxisan* can be manifested through the use of an Agent-oriented adverb, such as *epitidhes* ('on purpose') in the matrix clause, i.e. *(ta pedhja) epitidhes arxisan na trexun* "the children/they on purpose began to run". On these grounds then, the construction in (11) is an instance of control (see also Efthimiou 1990). Before we proceed with our discussion of the other predicates, we need to point out that aspectuals may also be characterized as raising predicates.<sup>2</sup> The ambiguous status of aspectuals as raising and control ones is an old issue (see Perlmutter 1970, Zubizarreta 1982), which has recently been addressed for MG as well by Alexiadou & Anagnostopoulou (2001). Even if this is the case, it still does not affect the validity of our discussion, since what is important for our purposes is the fact that aspectuals are compatible with control.

Verbs of knowing also exhibit control when they take a *na* -complement, as in (12):

- (12) a. O Kostas kseri na odhiji/\*odhighun.  
the Kostas know-3s prt drive-3s/drive-3p  
"Kostas knows (how) to drive/\*for them to drive."  
b. O Kostas emathe na odhiji/\*odhighun.<sup>3</sup>  
the Kostas learnt-3s prt drive-3s/drive-3p.  
"Kostas learnt (how) to drive/\*for them to drive."

<sup>2</sup> Thanks to one of the reviewers for bringing up this point.

<sup>3</sup> Note that *ksero* does not impose any aspectual restrictions on the embedded predicate, while *matheno* (*ematha* in the past tense) does. Presumably this is due to the fact that *ematha* 'learnt' focuses on the process involved in order to acquire an ability; hence the requirement for –perfective aspect in the embedded clause.



Recall that when a verb of knowing takes a *na*-complement, it acquires a modal (dynamic) reading. It is not surprising then that in this context it behaves exactly like the dynamic modal *boro/bori* in terms of control.

The class of future-referring predicates manifests a more varied pattern with respect to control. As already pointed out in section 1, a volitional like *thelo* (‘want’) allows for either coreference or disjoint reference (cf. (3)). There are two ways to express this behavior: the first is to assume that the empty subject, typically *pro* (given the pro-drop character of MG), can take any reference including that of the matrix subject. This would essentially result in free reference. The other option that has been put forward by Terzi (1992) and more recently Landau (2004) is to assume that when coreference is at stake, it is an instance of control and the null subject is PRO (cf. (13a)); when disjoint reference is at stake, then the subject is *pro* (cf. (13b)) which necessarily obviates given the volitional property of the matrix verb and the ‘subjunctive’ character of *na*. Obviation then is syntactically present although concealed. The two relevant representations below are adapted from Terzi (1992: 85):

- (13) a. O Kostas theli [CP [C *na* odhijisi [IP *pro* [I *t<sub>na</sub>* odhijisi] ...
- b. O Kostas theli [CP [C Ø [IP PRO [I *na* odhijisi] ...

Note that the two orders do not differ on the surface, although they correspond to different syntactic representations. An auxiliary assumption is that the *na*+V complex has moved to C in (13a), while no such movement has taken place in (13b), thus protecting PRO from government or in more current terms from any other than null Case assignment (on null Case, see Chomsky & Lasnik 1993, Martin 2001). Since this structure makes certain assumptions about the position of *na*, as well as the representation of null subjects, we will evaluate its merits in section 4 where we discuss control in more detail. Anticipating the discussion, I will argue in favor of a single representation, and attribute the two different readings to free reference.

Predicates like *prospatho* (‘try’) or *kataferno* (‘manage’, ‘succeed’) appear to be less straightforward, as they look like control predicates, but at the same time may allow for disjoint reference as well. Consider the following examples:

- (14) a. O Kostas prospathise *na* dhioristi (o jios tu) stin trapeza.  
the Kostas tried-3s prt be.appointed-3s the son his in-the bank  
‘John tried (for his son) to be appointed in the bank.’
- b. O Kostas katafere *na* fiji o jios tu.  
the Kostas managed-3s prt leave-3s (the son his)  
‘John managed (for his son) to leave.’

In both sentences above there is agreement-feature matching (3<sup>rd</sup> person singular) between the matrix and the embedded predicates. The embedded one in (14a) is in the non-active voice, but this does not strictly speaking affect the point we want to make here. Matching of agreement features strongly favors a coreference reading between the two subjects. The question then is whether this is an instance of control, as argued for *boro*, *arxizo* and *ksero* above. Maintaining the basic old idea that control involves a bound interpretation (Chomsky 1981), we expect that, all things being equal, in control cases this would be the only option. If disjoint reference can be derived, without basically altering the syntactic structure, then we have coreference which is not an instance of binding. Bearing this clarification in mind, we can pay a closer examination to the data in (14) and note that the embedded subject may be independently lexicalized and be disjoint in reference from the matrix one. In (14), the DP *o jios tu* (‘his son’) can appear in the embedded clause. The availability of disjoint reference,

although not strongly preferred, but nevertheless available, argues in favor of a semantico-pragmatic account of the coreference attested and against control.

It is also worth mentioning that data like those in (14) have been invoked as evidence for the absence of syntactic control in the form of PRO in MG; thus Philippaki-Warbuton & Catsimali (1999), Spyropoulos & Philippaki-Warbuton (2001), Philippaki-Warbuton (2004) argue that the embedded subject is always *pro*, given the finite character of the *na*-clause. Obligatory coreference is derived from semantico-pragmatic factors. On the other hand, Terzi (1992: 37-45) argues that verbs like *prospatho* ('try') show this dual pattern because they correspond to two lexical items: *Prospatho1* takes a control *na*-complement, while *prospatho2* takes an adjunct *na*-clause and has the interpretation of a causative, i.e. 'try to make/bring up a situation such that...'. Presumably the same assumption has to be made for the verb *kataferno* ('manage') and the like. Although it is true that these predicates have a causative flavor when the embedded subject is disjoint in reference, it is not so obvious that this reading has to be inherent to the lexical properties of the predicate. In other words, it is not so obvious that we need to postulate two different lexical items, as we will see below.

The third subclass within this category involves predicates that can only be construed as control ones. These are verbs like *tolmo* ('dare'), *prothimopiume* ('be willing'), *skopevo* ('intend'), where the controller is the matrix subject, as shown in (15a), but also verbs like *empodhizo* ('prevent'), *protrepo* ('encourage'), *epitrepo* ('allow') (i.e. verbs of permission in general) where the controller is the matrix object, as in (15b):

- (15) a. O Kostas tolmise/prothimopiithike *na* fiji (\*o jios tu).  
the Kostas dared-3s/was.willing-3s prt leave-3s (the son his)  
"Kostas dared/was willing (\*for his son) to leave."  
b. O Kostas mas empodhizi/protrepi *na* fighume/\*fiji.  
the Kostas us prevent-3s/encourage-3s prt leave-1p/leave-3s  
"Kostas prevents us from leaving/ encouraged us to leave."

Note that the verbs that trigger control have an implicit modal reading associated with ability or permission (or absence thereof). In this sense, they share properties with the (dynamic, or more generally root) modals, and just like them, they create a control context.

So far we have identified two groups of control predicates: aspectuals and modals. The latter group also involves verbs of knowing or future-referring ones, which carry some form of root (dynamic) modality. Before we leave this section, it is worth mentioning verbs of mental perception such as *thimame* ('remember'), which under certain syntactic conditions may also qualify as control ones. Consider the following examples:

- (16) a. Thimithika *na* klidhoso/\*klidhosi tin porta.  
remembered-1s prt lock-1s/ lock-3s the door  
"I remembered (\*for him) to lock the door."  
b. Thimame *na* klidhoso/\*klidhosi tin porta.  
remember-1s prt lock-1s/ lock-3s the door  
"I remember (\*for him) to lock the door."  
c. Dhen thimame *na* klidhosa/klidhose tin porta.  
not remember-1s prt locked-1s/locked-3s the door  
"I don't remember (him/her) having locked the door."

Note that the same verb followed by a *na*-complement may behave as either a control, as in (16a&b), or a non-control one, as in (16c). Let us start with (16c): the matrix predicate is in the present tense (and negated), while the embedded clause carries past tense specification.

This pattern is reminiscent of the one found with epistemic predicates, once they appear in present tense with a *na*-complement. The question then is if there is some sort of epistemic modality implicated. The answer can be positive: the derived interpretation would be something like “According to what I remember, it may or may not be the case that I/he locked the door”. Control is not available, as it is not available with the epistemic predicate in (7a). In (16b) the matrix verb is also in the present tense, but there is no negation;<sup>4</sup> this seems to be a crucial difference, as there is no epistemic reading implicated; furthermore control becomes available. The –past, –perfective specification of the matrix verb in this case gives rise to a habitual or generic reading. The sentence in (16b) also exhibits control, but differs from (16a) with respect to the inflection of the matrix verb, which in this case is +past, +perfective, yielding an episodic reading. In both cases though we get the same lexical entailment in relation to the embedded clause, i.e. ‘If I remembered to lock the door, then I should have locked the door’. Crucially, no such entailment pertains in (16c).

The obvious question that arises is the following: what is the relevant factor that not only allows for the *na*-complement to appear, but furthermore contributes to control? While in the case of the predicates we have considered so far, we can identify a relevant modal reading, this may not be so straightforward in the case of *remember* in (16a&b). As a matter of fact, (16b) is an easier case to handle, given that the verbal inflection (–past, –perfective) can in any case create a modalized reading, i.e. “When(ever) it is the case that *x*, I remember to do *y*”. However, this is not so in (16a) where +perfective aspect in combination with +past gives rise to a specificity effect in terms of temporal reference. At this point, I will follow Pesetsky’s (1991) discussion concerning the licensing of *to*-infinitives and control in the same context. As already mentioned, the verb *thimame/remember* denotes a mental state; following, a different categorization, it belongs to the class of implicatives (see the discussion on its lexical entailment when *na*, or English *to* for that matter, is present). According to Pesetsky, this semantic property of implicatives can be syntactically expressed as a contentful *to* infinitival marker (*to\**). This *to\** has both tense and modal properties: it binds the event argument of the embedded predicate (in the sense of Kratzer 1989/1995) and has the same distribution as the modal *should*.<sup>5</sup> The ‘should’ character of the embedded clause has already been mentioned above. I will then assume for present purposes that this rather tentative solution is on the right track, in the sense that the *na*-complement in the context of *thimame* can be compatible with some version of modality. It is also consistent with the fact that once negation appears in the matrix clause, as in (16c), it transfers modality to the matrix predicate, thus removing the lexical entailment effect as well.

To summarize, in the present section I have considered the distribution of *na*-complements and have tried to identify the control contexts. With respect to the latter, it was shown that control may be directly linked to the lexical properties of the selecting predicates (e.g. true modals, aspectuals), may be derived through the combination of the lexical properties of the selecting predicate along with *na* (e.g. verbs of knowing, some future referring predicates), or finally may arise through the combination of the lexical and inflectional properties of the matrix predicate along with *na*. The discussion of the three relevant cases probably suffices to show that control cannot just be considered the result of lexical semantic properties but appears to be sensitive to syntactic conditions as well.

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<sup>4</sup> According to Quer (1998: 34-35) the verb *remember* in Spanish permits the subjunctive only when matrix negation or question is present. This is not so in MG.

<sup>5</sup> Pesetsky (1991) suggests a similar analysis for factive infinitives as well, and also draws on the correlations between English infinitives and the Romance subjunctive found after the relevant class of predicates (see also Quer 1998).

Having discussed the basic data, I will next turn to the properties of *na* in the clause structure and how it interacts with the subject in general and in control in particular.

## 2. The particle *na* and the subject

### 2.1 The position of *na*

The status and the position of *na* in the clause structure has been a controversial issue in the relevant literature. There are basically two main approaches: according to the first one, *na* is the head of a MoodP (Philippaki-Warbuton 1992, 1998, Tsimpli 1990, Terzi 1992) or a ModalP (Rivero 1994), situated in the upper inflectional domain, i.e. immediately below C. According to the second approach, *na* is a complementizer, like *an* ('if') and *oti* ('that'), thus situated in C (Agouraki 1991, Tsoulas 1993). The first approach is coached within the assumption that *na* is the marker of the subjunctive. This analysis is supported by the fact that *na* can also occur in matrix clauses; the idea then is that embedded *na*-clauses are introduced by a null C. The second analysis is supported by the fact that *na* is in complementary distribution with the other complementizers.

The ideal solution would be to combine these two approaches and analyze *na* as the element that has both mood and complementizer features; this proposal is put forward by Roussou (2000) with the additional assumption that the Mood head is part of the articulated C-system, along the lines of (Rizzi 1997). The proposed structure is given in (17):<sup>6</sup>

$$(17) \quad [\text{Op } na \text{ } [_M \text{ } t_{na} \text{ } [_I \text{ } \dots]]]]$$

According to (17), *na* starts in M, namely the lower head in the C domain (roughly corresponding to Rizzi's 'Fin') and further moves to Op, a higher head in this domain (roughly corresponding to Rizzi's 'Force'). Following the notation of Manzini & Savoia (1999), Op is the head that encodes (intensional) operator features relating to clause-typing. Given the structure in (17) then, *na* lexicalizes features associated with two heads; the simplest way to express this property is in terms of movement, although other alternatives, such as direct merge in Op and some form of Agree with M are also possible. The structure in (17) can capture the complementary distribution of *na* with the other complementizers, which occur in Op, as well as with the 'future' particle *tha*, which is also analyzed as an element of the M type (on a different version of the latter see also Rivero (1994)). It is perhaps worth mentioning that *na* and *tha* can give rise to similar modal readings (see Tsangalidis (1999) for a detailed account of *tha*). Assuming this analysis to be on the right track then, we can account for the following: first, *na* as the equivalent of a mood marker can occur in matrix clauses, while as a complementizer it can introduce embedded clauses, and second, *na*-clauses are predicted to have a wider distribution than the Romance subjunctive; this is indeed the case, as *na*-clauses appear systematically in complement position, subsuming the distribution of infinitives as well.

Another characteristic property of *na*, shared by the particle *tha* but not by the typical complementizers, is that it forms a cluster with the verb. The only elements that can occur between *na* and V are negation *min* and object clitics, as shown in (18a). Notice that *tha* can also be separated from the verb by an object clitic, but it appears with a different negative morpheme, namely *dhen*, which furthermore precedes *tha* as shown in (18b):

$$(18) \quad \text{a.} \quad \text{Na } min \text{ to dhis.}$$

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<sup>6</sup> Roussou (2000) argues for the postulation of an even higher C, specified for subordination, realized by the relative complementizer *pu* ('that'); in some cases it may also be realized by *oti* or *an*. We abstract away from this issue in the present paper.

- prt not it see-2s  
 “You shouldn’t see it.”
- b. *Dhen* tha to dhis.  
 not prt it see-2s  
 “You will not see it.”

The distributional facts of negation in relation to the particles *na/tha* and the complementizers argue in favor of the postulation of NegP in the left periphery, and more precisely between Op and M, in MG (Roussou 2000). When *mi(n)* is present, *na* is directly merged in Op, while negation *min* merges first in M and then raises to Neg. This is compatible with the fact that *mi(n)* interacts with mood, as in the case of imperatives, given that MG cannot have negated imperatives, but has to revert to the –imperative form (cf. \**mi fije* vs. *mi fjis* ‘don’t leave!’). Furthermore, the modal character of *mi(n)* is also manifested by the fact that it can occur in prohibitions, i.e. *mi!* = ‘don’t!’. The negator *dhen* has no such properties and directly merges in Neg, while *tha* merges in M. The two relevant structures with negation are given in (19). In the following configuration, I take the view that the verb in MG raises to I (see Philippaki-Warbuton 1998), and that (MG) object clitics are inflectional elements that occupy a Clitic projection (CL) in the I domain, as argued by Sportiche (1996), Manzini & Savoia (2004), among others:<sup>7</sup>

- (19) a. [Op *na* [Neg *min* [M *t<sub>min</sub>* [CL to [I dhis ...]]]]]  
 b. [Op (*oti*) [Neg *dhen* [M *tha* [CL to [I dhis ...]]]]]

As the structure in (19a) shows, *min* shares the modal character of *na* and *tha*. Since *na* is also lexically specified for Operator properties, it can directly merge in a higher position when *min* is present and be associated with M via *min* in Neg.

Related to the above point is the position of the subject, which in *na*-clauses may appear either before *na* or in a postverbal position, as illustrated in (20a) below; (20b) shows that no such restriction holds for *oti*-clauses where the subject may appear after *oti* as well:

- (20) a. thelo (o Kostas) *na* \*(o Kostas) fiji (o Kostas)  
 want-1s (the Kostas) prt (the Kostas) leave-3s (the Kostas)  
 “I want Kostas to leave.”
- b. Nomizo (o Kostas) *oti* (o Kostas) efije (o Kostas).  
 think-1s (the Kostas) that the Kostas left-3s (the Kostas)  
 “I think that Kostas left”

Postverbal subjects are readily available in MG, a property that is (partly) tied to the pro-drop character of the language (see Rizzi 1982). The standard assumption has been that preverbal subjects in MG do not occupy the canonical subject position in the I (or T) domain, but are topics (Philippaki-Warbuton 1987, 1998, Alexiadou & Anagnostopoulou 1998, among others). However, this assumption has been recently challenged by Roussou & Tsimpli (2006) who argue, based on a variety of data, that preverbal subjects do not have to be topics (see also Cardinaletti (2004) for Italian). If this is correct, then we need to account for the fact that there can be no lexical subject between *na* and the verb; in other words, that the subject

<sup>7</sup> The notation ‘CL’ is used as an umbrella-term for object clitics, since the latter may be further distinguished to individuated clitic positions according to person, number, etc. Since such a refined distinction is not relevant to our discussion, I will not discuss it further (but see Manzini & Savoia (2004) for a detailed discussion).

position associated with the I head cannot be projected when *na* is present. The fact that the same effect holds for the other mood element, namely *tha*, but not for the complementizers *oti* and *an* in Op, points towards a correlation between lexicalization of M in relation to the subject position. We provide an account of this effect immediately below.

### 3.2 The particle *na* and the subject

Before we provide an analysis of the ungrammatical version of (20a), let us consider the subject position with respect to (19a), which appears below M and above CL, given that subjects precede object clitics. In more traditional terms, the canonical subject position is required for syntactic reasons in order to satisfy the Extended Projection Principle (EPP, Chomsky 1982). In Chomsky (1995) the EPP is taken to correspond to the D feature of T (or I). Its role is to ensure the projection of a specifier position associated with T/I; in more recent versions of the theory (Chomsky 2001, 2004), the EPP has a more generalized character as it may appear on any functional category (with the consequent effect of triggering the projection of a specifier). Let us somehow maintain the EPP as a D feature idea, at least with respect to the position that relates to the subject. In other words, let us assume that the typical subject position corresponds to the projection of a D position in the I domain of the clause structure (for various formulations see Sportiche 1997, Manzini & Savoia 2002, Rizzi & Shlonsky 2006).

On these grounds (and abstracting away from other details), the sentence in (20a) has a structure that makes the projection of D above I and below *na*, as illustrated in (21) below, unavailable. The position denoted as D is specified for the +/-definite feature and is the typical position for subjects (clitics or full DPs). With this much background, let us now consider the structure in (21):

(21) [V (thelo) [Op *na* [M *t<sub>na</sub>* [D \*o Kostas [CL ton [I dhi [V *t<sub>dhi</sub>* ]]]]]]]

The particle *na* realizes both M and Op in the left periphery, while the finite verb is under I. A lexical DP subject can be available as long as it is either above *na* (thus above Op), or below V (thus below I), as evidenced in (20a). Given that the effect represented in (21) is attested only in the presence of a particle like *na*, the question we need to answer is how M and D interact as far as the lexicalization of the latter is concerned. If there is indeed a correlation, the simplest answer would be as follows: in the local configuration between M and D (head-to-head), lexicalization of M subsumes that of D. Therefore a DP can be present, although in a peripheral position, that is postverbally or as a topic in the C domain.

The feature content of D has already been assumed to be that of +/-definite. If M has an effect on D, it is natural to assume that it draws on the same, or at least a non-distinct, feature specification. Consider then whether M can encode such a feature. Note that in traditional approaches the indicative vs. subjunctive distinction is usually expressed as a difference between realis vs. irrealis mood. As pointed out by Quer (2006, 2007) the +/-realis specification does not turn out to be without problems. On the other hand, in a number of current approaches, the subjunctive has been treated as a kind of an indefinite element (see for different formulations of this idea Tsoulas (1994), Brugger & D'Angelo (1995), Giannakidou (1995), Baker & Travis (1997), Manzini (2000), among others). If this is correct, then there is a parallelism of features in the verbal and nominal domain. Note that, as has already been pointed out, the morphological subjunctive such as the one exhibited in Classical Greek, or Latin, or the modern Romance languages for example, is realized through the use of a different verbal inflectional paradigm, and more precisely a different agreement paradigm. If agreement on the verb has a nominal character, then this is a case where the division between verbal and nominal grammatical properties becomes less easy to

distinguish.<sup>8</sup> In Greek, on the other hand, loss of morphological subjunctive has led to the ‘transfer’ of these features on a separate head, here indicated as M (see Roberts & Roussou 2003: chapter 3, Philippaki-Warbuton & Spyropoulos 2004).

The assumption that M and D can encode the same basic feature of (in)definiteness relating to clausal and nominal elements respectively does not by itself suffice to account for the absence of a lexical DP in the subject position (below M that is). Recall that this effect arises under a certain lexicalization of M, and in particular by the presence of *na* (and the like particles). The question then has to be made more precise in the sense that we need to consider whether there is empirical evidence for the relevant feature specification regarding *na*. Note that the morpheme *na* is also found in presentational/ deictic contexts, as shown in the following examples:

- (22) *Na o Kostas!*  
 prt the Kostas  
 “There is Kostas!”

Christidis (1985, 1990) argues that the two types of *na*, namely the ‘subjunctive’ and the ‘presentational’ are synchronically related (contra Joseph (1981), (1994) who treats presentational *na* as a predicate). This means that we are dealing with two instantiations of the same element ‘NA’. In order to support this conclusion, Christidis shows that presentational *na* may also introduce a sentence:

- (23) *Na sou po!*  
 prt you tell-1s  
 “Let me tell you”

In this context *na* has the reading “hey/come here, I want to tell you something”. The different readings of *na* relate to different types of deixis. In particular, *na* with a nominal complement involves deixis to an object of the outside world (‘exophoric’); *na* with a proposition involves anaphoric reference (in relation to speech time, the speaker, etc.) (‘endophoric’ in Christidis’ terms). There is another difference between the two uses of *na*: while presentational *na* is stressed, modal *na* isn’t; note that *na* in (23) is stressed and in this respect it acquires the ‘exophoric’ deictic reading. Christidis (1990) attributes this difference to the fact that modal *na* is the clitic<sup>9</sup> variant of presentational *na*. Perhaps then the deictic character of *na* in (22) can be directly derived by the emphatic stress it bears. In our terms, it is the same element *na* that has the D feature, and depending on its complement, it gives rise to different interpretations (see also Roberts & Roussou 2003: 110). Emphatic stress may play an additional role in distinguishing between the two readings.

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<sup>8</sup> One of the reviewers suggests that if we follow the analysis of Giorgi & Pianesi (2004), it is possible to argue that Italian *che* (or French *que* for that matter) in subjunctive clauses has the Mood feature. This would in turn imply that there are two different feature specifications for *che* which translate to different syntactic positions. This may be a viable option, although I would like to maintain the idea that *che* has the same properties irrespectively of morphological mood in the I-system. This allows us to capture the fact that certain differences that arise between the Balkan languages and Romance have to do precisely with the different ways of lexicalizing mood properties.

<sup>9</sup> For Philippaki-Warbuton & Spyropoulos (1999), modal particles have an intermediate status between clitics and affixes.

It is interesting to note that a similar situation regarding the clitic vs. non-clitic status of *na* is attested with the accusative (and genitive) definite article in Greek, which is morphologically non-distinct from object clitics, as shown in the singular accusative paradigm in (24a):

- (24) a. *ton* (masc.), *tin* (fem), *to* (neut.)  
 b. *Idha ton/TON fititi.*  
     saw-1s the student  
     ‘I saw the/THE student.’  
 c. *Ton idha.*  
     him saw-1s  
     ‘I saw him.’

The very same form that appears in (24a) *ton* (masculine, accusative, singular) can take an NP-complement and function as a definite article in (24b) where it can also be stressed for emphatic purposes, or have no complement and function as a clitic, as in (24c), thus occupying a position (CL) in the inflectional domain of the clause; in the latter case it cannot be stressed.

The above brief discussion shows that the apparent differences between the ‘presentational’ and ‘subjunctive’ *na* are attested elsewhere in the grammar as well; in both cases we can assume that we are dealing with different variants of the same element, and not with two homonyms. In relation to this, also note that like the definite article, *na* in the nominal domain can take a DP complement; when it appears in the M position though, it is a clitic and cannot have a DP complement. In short, there is further empirical evidence that supports the association of ‘subjunctive’ *na* with a feature specification of the D-type.

Having considered the feature specification of M, as well as the properties of the particle *na*, we are now in a position to provide an account for the pattern in (23). On the basis of the preceding discussion, the answer is rather straightforward: the morpheme *na* has the effect of lexicalizing both M and its local D (with which it bears a head-head relation), rendering the presence of a lexical DP subject unnecessary and therefore unavailable under economy.<sup>10</sup> In EPP-terms, *na* in the lower C domain directly satisfies the EPP property associated with the projection of D in the clause structure (see also Roussou 2004). The relevant structure is given in (25):

- (25) [<sub>Op</sub> (*na<sub>D</sub>*) [<sub>M</sub> *na<sub>D</sub>* [<sub>CL</sub> *ton* [<sub>I</sub> *dhis* ...]]]]

As we will see below, this approach has certain advantages, and also provides a direct account for the absence of a subject position associated with I in English *to*-clauses as well. Note in the schema above that nothing prevents the DP subject to appear in some other position, given that what matters for the unavailability of D is locality with *na* in M; if no such configuration arises, then no restrictions on the lexicalization of the DP arise either.

A point of clarification is required at this stage of our discussion before we move on. As correctly pointed out by one of the reviewers, the question that arises is why lexicalization in the case of *na* goes one way, i.e. why the reverse cannot happen so that the subject D would subsume the lexicalization of M. If after all what matters is the head-to-head relation between the two positions, then this should be possible. The first observation has to do with

<sup>10</sup> The particle *tha* also has the same effect as *na* regarding the lexicalization of the subject. This is expected given that *tha* stands in a paradigmatic relation with *na* and also occupies the M position.



the fact that this ‘one-for-two’ lexicalization effect seems to be embedded in some hierarchical ordering, namely something higher in the clause affects a lower element to which it bears a local relation. Notice incidentally that in the GB framework this relationship was captured under the notion of head-government, which in current theory does not play a role, although we still need to account for its effect, probably as a condition that relates to PF (see Roussou (2002), and Hornstein & Lightfoot (1991) for an earlier approach). The second observation has to do with the fact that, if ‘reverse’ lexicalization were at stake (i.e. from D to M), then we would have to assume that the D(P) subject carries some property that would relate it to the modality of the clause, as part of its inherent lexical specification. Obviously this is not the case. On the other hand, the lexical specification of an element like *na* can carry out this double function: by having a D feature it can affect the subject (and in particular its lexicalization and reference, but not its thematic properties which in any case derive from the predicate), and at the same time be associated with the modal specification of the clause it introduces. In this respect then, the higher element carries more information and for this reason it has to be present for interpretation as well.

Before we move on to the discussion of how control is derived under this set of assumptions, let us briefly mention that an analysis along these lines is independently provided by Manzini & Savoia (2006) with respect to the Albanian ‘subjunctive’ particle *të*, which is also used as a demonstrative element, and according to the authors lexicalizes D. This offers further comparative empirical support, which becomes even more important as both Albanian and MG basically lack infinitives and morphological subjunctive and rely on the presence of a mood particle. This approach can perhaps further account for a rather different set of data put forward in the literature. Zubizarreta (2001) considers the following interrogative examples in Romance:

- |      |    |  |           |
|------|----|--|-----------|
| (26) | a. | *Qué Pedro compró?<br>what Peter bought-3s                                 | (Spanish) |
|      | b. | *Que Pierre a acheté?<br>what Peter has bought<br>“What has Peter bought?” | (French)  |

According to Zubizarreta, the ungrammaticality of (26) is attributed to the position of the preverbal subject. Her analysis runs as follows: the preverbal subject lexicalizes a Clitic position (cf. D in our terms) in the inflectional domain; this Cl(D) head is operator-like in that it binds a variable inside the VP. The *wh*-element (*qué/que*) lexicalizes not only the *wh*-feature but the interrogative operator Q as well, through feature syncretism; Q typically occupies the lower C, while *wh*-phrases occupy the higher C in the articulated C system. Cl(D) intervenes between Q and the variable introduced by the *wh*-word, giving rise to a Minimality effect; hence the ungrammaticality. Crucially, Minimality in this approach is stated on lexicalization options, i.e. of Cl(D) and Q/*wh*. Notice that a simpler account can be provided once we make the assumption that *que* in the above examples is simply a D element situated in the C-system and associated with the lower C as well. This suffices for *que* to subsume the lexicalization of D in the I domain, in a way similar to Greek *na* or Albanian *të*. It is in this respect then that the independent lexicalization of the subject gives rise to a locality effect.

Having considered the relation between *na* and D let us next turn to the interpretation of the subject of the *na*-clause, with the aim of providing an account of control.

## 4. Control revisited

### 4.1. General remarks

The syntactic nature of the controlled subject in *na*-complements has been a controversial issue in the literature: is it a PRO (Terzi 1992, 1997, Iatridou 1993, Watanabe 1993, Varlokosta 1994, Landau 2004), or *pro* (Philippaki-Warbuton & Catsimali 1999, Spyropoulos & Philippaki-Warbuton & 2001, Philippaki-Warbuton 2004)? Each analysis is based on different assumptions regarding the definition of ‘finiteness’ and the element responsible for the assignment of Case. If the different types of Case (nominative, null) are associated with Tense, then the availability of PRO in Greek control contexts can be possible; if, on the other hand, Case is associated with Agreement, then PRO is not possible, since agreement is always present, thus leaving *pro* as the sole expression of the controlled subject. However, if the embedded subject is *pro*, then there has to be some mechanism that ensures that although pronominal, it is bound by an argument in the matrix clause. The proponents of this analysis attribute the control reading to the lexical semantics of the matrix predicate, therefore favoring a semantic approach to control, at least with respect to languages of the MG type.

On the other hand, the issue of the empty category involved does not arise in more recent approaches where control does not depend on PRO. For example Hornstein (1999, 2003) argues that control reduces to DP-movement through a thematic position, as in (28a) (see also O’Neil 1997), while Manzini & Roussou (2000) argue that the controller DP is directly merged in its surface position from where it attracts the two theta-roles associated with the corresponding predicates as in (28b) (in the following structures, the label ‘T’ corresponds to the I-notation that has been mainly used so far, without any significant difference):

- (28) a. [John T [<sub>VP</sub> ~~John~~ tried [<sub>CP</sub> [<sub>TP</sub> to [<sub>VP</sub> ~~John~~ win]]]]]  
 b. [John T [<sub>VP</sub> tried<sub>θ</sub> [<sub>CP</sub> [<sub>TP</sub> to [<sub>VP</sub> win<sub>θ</sub>]]]]]

Both structures in (28) rely on the assumption that there is no EPP (D) property associated with the non-finite embedded T. Since these structures do not postulate any empty categories of the *pro* or PRO type, they could offer an answer to the problem raised by languages like MG, as far as the nature of the controlled subject is concerned. However, this is only apparent, as the agreement that appears on the embedded verb has to be taken into consideration, especially if we adopt the idea that verbal agreement in MG is an alternative way of satisfying the EPP/D (see Alexiadou & Anagnostopoulou 1998). Thus an analysis that crucially relies on the absence of an EPP property cannot be readily applied to MG. Moreover, we observe that a lexical subject can be present in the control *na*-clause, as in (29) below (see Philippaki-Warbuton & Catsimali 1999):

- (29) O Janis arxise na kapnizi o idhjos.  
 the John started-3s prt smoke-3s the same  
 “John started (himself) smok19king.”

The overt subject is possible to the extent that it appears in a postverbal position (or before *na*) and is an element compatible with a bound reading, such as the pronoun *o idhjos* (see Hornstein & Varlokosta (1993) on its distribution). Thus the obligatory presence of verbal agreement and the optionality of a (specialized) lexical subject show that the absence of EPP effects in control complements has to be properly redefined in the light of the MG data.

In the previous section we provided an account of the interaction between *na* and the lexical subject. Recall that *na* subsumes D in the I-system, although it allows for a DP subject in a peripheral position due to other interacting factors, such as verbal agreement and/or free word order. Since the effect of suspending D in MG at least is attributed to *na*, it follows that

it is not specific to control complements. What is specific to control though is the bound interpretation that arises as far as the embedded subject is concerned. The question then is how, given the general structure in (25), we can derive control.

Bearing the above general remarks in mind, let us next turn to the implementation of control in MG, setting the scene for an account of control in English as well.

### 3.2. Control in MG

As already pointed out, a characteristic property of MG is that verbal agreement mediates the expression of the subject and for this reason it cannot be neglected but has to be part of the control dependency. Consider the following examples:

- (30) a. O Kostas bori [*na* fiji].  
           the Kostas can-3s prt leave-3s  
           “Kostas can leave.”  
       b. Ine efkolo [*na* fijis/ fiji kanis]  
           is easy prt leave-2s/leave-3s one  
           “It is easy (for one) to solve the problem.”  
       c. O Kostas nomizi *oti* ine efkolo [*na* fiji]  
           the Kostas think-3s that is easy prt leave-3s

The sentence in (30a) is a case of obligatory control and, as we can see, the agreement features of the embedded predicate obligatorily match those of the matrix one. (30b) is the typical case of arbitrary reference, which in Greek is expressed either in the form of generic ‘you’ (2<sup>nd</sup> person singular), or with an obligatorily overt indefinite in subject position (3<sup>rd</sup> person singular agreement); as expected, in the presence of *na*, the subject *kanis* can only be postverbal (if preverbal it has to precede *na*). Finally, (30c) falls under the case of non-obligatory control and can be construed in two ways: either with coreference between the subject of *fiji* and *nomizi* (given that the features of the two predicates match), or with disjoint reference (i.e. Kostas thinks that it is easy for someone else to leave).

Let us now see how obligatory coreference (control) in (30a) is syntactically encoded. Recall that *na* itself has a D feature; the pronominal character of verbal agreement in MG makes its categorization in terms of a D feature possible (along with person and number features). While verbal agreement realizes the features of the subject internally to the verb, *na* relates the subject (hence the relevant features) through the predicate to a clausal position. In terms of interpretation, these two elements need to match, and since *na* forms a dependency with Inflection and V in any case, matching can be expressed in syntactic terms, precisely through this dependency. The relevant configuration for the embedded clause in (30a) is given in (31):

- (31) [<sub>M</sub> na<sub>D</sub> [<sub>I</sub> lis-i<sub>D</sub> [<sub>V</sub> ...]]]

Suppose next that this substructure is embedded under a control predicate. For control to be available, *na*, or more precisely the D feature of *na*, has to be bound by a matching element in the matrix clause, i.e. by one of the matrix arguments (or the corresponding inflection). The dependency then between the D of *na* and that of I extends to include the appropriate one(s) in the higher clause, yielding the required bound interpretation associated with control. Note at this point that this is an instance of categorial feature matching, which involves non-distinct features, as in Chomsky (2001). Unlike Chomsky (2001) and subsequent work though, the relation between the two lexical items does not involve the postulation of uninterpretable (unvalued) features, but applies rather automatically for the purposes of

interpretation (see Manzini (1995) on dependency formation, Brody (1997) on chain-formation). In order to complete our description, suppose that (31) becomes embedded under a non-control predicate. In this case no bound interpretation arises, and free reference (which includes both coreference and disjoint reference) becomes available. Finally, if (31) is not further embedded but surfaces as a matrix clause, then the reading that arises is the one which is compatible with the features provided by verbal agreement, along with the interpretation assigned to *na*. Note at this point that the internal properties of a *na*-clause remain the same in all three cases. However, the interpretation assigned differs depending on whether there is embedding or not, whether embedding involves a control predicate or not, and so on. Furthermore there are no additional abstract syntactic features involved that would distinguish one reading from the other.

Bearing the above clarifications in mind, let us now turn to the property that gives rise to control. In PRO-approaches control is attributed to PRO itself. At the same time, PRO can only occur in certain environments, so PRO cannot be seen independently of those. The standard assumption has been to relate control/PRO to the feature content of the embedded Tense. For Iatridou (1993) control *na*-clauses lack Tense, so Case is not available and PRO is licit despite the presence of agreement. Varlokosta (1994) refines this approach and argues that these clauses lack semantic tense. As a result of this property, the matrix and the embedded clauses form a single event (e.g. knowing or beginning or being able of an activity). This is supported by the fact that obligatory control predicates cannot tolerate any independent temporal modification, while non-control ones like *thelo* can have a partly independent modification, provided it is posterior to the event time of the matrix predicate. In Varlokosta's analysis the two sentences are structurally distinguished, as the latter but not the former involves T-to-C movement (see also Terzi 1992, 1997), making *pro* available, while the former has no such movement and therefore it allows for (Caseless) PRO.

In order to illustrate the above pattern, consider the following examples:

- (32) a. O Kostas kseri/ arxise simera [*na* odhiji (\*avrio)].  
the Kostas know-/started-3s today prt drive-3s tomorrow  
"Kostas knows today (how) to drive (\*tomorrow)."
- b. O Kostas theli simera [*na* odhijisi (avrio)].  
the Kostas want-3s today prt drive-3s tomorrow  
"Kostas wants today to drive (tomorrow)."
- c. O Kostas prospathise simera [*na* fiji (avrio)].  
the Kostas tried-3s today prt leave-3s tomorrow  
"Kostas tried (today) to leave (tomorrow)."
- d. O Kostas pistevi (simera) [*na* efije i Maria (xthes)].  
the Kostas believe-3s today prt left-3s the Mary yesterday  
"Kostas believes (today) that Mary must have left (yesterday)."

The matrix predicate in (32a) is a control one (*kseri*, *arxise*) and the only temporal modification is the one provided in the matrix clause. The predicate in (32b) is a non-control one, namely the volitional *theli*, and the embedded clause can partially bear independent verbal modification. This is also the case for the predicate *prospathise* in (32c) which, according to our classification, is not a control predicate, in the sense that it does not necessarily give rise to obligatory coreference (i.e. no bound reading). Finally, the situation is different in (32d) where the matrix predicate is an epistemic one and the *na*-complement bears independent temporal modification (see Roussou 1999). This is consistent with the fact that these predicates do not exhibit control.

Landau (2004) further develops the idea of linking Tense with PRO/control, by distinguishing between anaphoric and dependent Tense. The *na*-complement in (32a) is the Control (C-) subjunctive and has anaphoric Tense, while the *na*-complement in (32b&c) is the Free (F-) subjunctive and has dependent Tense. Anaphoric Tense is identified with that of the matrix clause, while dependent Tense is constrained by that of the matrix clause. The categorization in terms of features regarding the embedded C and I is as follows (Landau 2004: 840):

- (33) a. C-subjunctive: I = [-T, +Agr], C = [-T]  
 b. F-subjunctive: I = [+T, +Agr], C = [+T, +Agr]

The presence of a T feature (with different values) on the embedded C ensures an Agree relation between the two heads, and further Agree with the matrix one where necessary. Given that T and PRO match in distribution, the idea is that anaphoric T goes along with PRO, while dependent T may vary, allowing for either PRO or *pro*. In the latter case, coreference and disjoint reference in (32b&c) correspond to two different configurations: PRO for the case of coreference, *pro* for disjoint reference, exactly as argued by Terzi (1992). In this system then, coreference in both C- and F-subjunctives always involves PRO, in the same way that in movement approaches coreference always involves movement (Hornstein 2003, Kayne 2002, for example). Landau's analysis then takes PRO to be the cornerstone of control. While it treats PRO like any other argument in terms of Case (thus no need for null Case), it still does so at the expense of introducing a rather complex system of features. Due to space limitations, I will not give the details of his analysis; the reader is referred to Hornstein (2003) for a criticism of Landau's earlier (2000) analysis, and more recently Boeckx & Hornstein (2004).

Although the intuition behind the distinction between anaphoric and dependent Tense appears to be on the right track, the feature mechanism that is used to implement this idea turns out to be unnecessarily complex. By positing different abstract features on the embedded C and I heads, this analysis presupposes the interpretation that will be derived at a later stage, given that in morphological terms both C and I are alike in both cases (i.e. in C- and F-subjunctives). This approach then requires some sort of a look-ahead strategy. On the other hand, it is not so obvious how this system accounts for the subjunctive found with an epistemic predicate, as in (32d), where there is no temporal restriction, and in this respect it resembles the distribution of the indicative.

Be that as it may, the crucial criticism concerns the postulation of abstract features of the type in (33). In the present approach I have argued that *na*-clauses have the same basic derivation/representation throughout: that is *na* in M (and Op) also lexicalizes the D of the subject position and forms a dependency with the D feature of the verbal agreement. So the interpretation of the unrealized subject is partly mediated by agreement, while its final interpretation is dependent on the interpretation of the *na*-clause. The first advantage of this approach, compared to Landau's, is that it does not resort to any 'hidden' abstract features that would distinguish the different readings prior to the embedding of the *na*-clause (or the non-embedding for that matter). This in turn means that the anaphoric vs. dependent reading arises at the next derivational step (or representational link), namely the point where *na* and the matrix predicate meet (and from where *na* reaches the matrix I as well). The second advantage is that it does not require the postulation of empty categories such as PRO or *pro* and therefore it avoids the problems associated with them. Instead the 'null' subject, or more precisely the absence of a lexical subject in a given position, is linked to the presence of *na* in this particular context. This account, as already mentioned, predicts that a lexical subject may be present in some other position, the only requirement being that it be compatible with a

Let us now consider the implementation of control in this system. So far we have argued that the D of *na* and of the verbal agreement match for the purposes of interpretation (see (31) above). Control arises when this matching extends to the matrix clause, targeting one of the matrix arguments (or their inflectional realization). Adopting the main line of the proposals that link control to Tense, we have the following picture: a control predicate triggers clause-union (a single event), which gives rise to identification of the embedded D-dependency to a matching one in the matrix clause. In other words, event composition leads to composition of argument structure as well. In syntactic terms, the dependency headed by *na* now becomes part of the matrix clause; this means that not only the embedded (I, V) link but also the D feature of *na* and I-V are valued with respect to the matching features in the matrix clause. The relevant structure is given below:

As (34) shows, clause union matches all the available Ds and fixes the final interpretation of the D of *na* (and of the embedded verbal agreement consequently).<sup>11</sup> Under this approach, the lexical properties of the matrix predicate (with or without its inflection) become highly relevant for the determination of control (see also Wurmbrand 2001: chapter 4). Recall also that when discussing control complements in MG (section 2.2.), we identified the following basic classes of predicates: aspectuals, (non-epistemic) modals, and a subclass of future-referring predicates which are compatible with a modal interpretation. In present terms, these are the predicates that trigger clause-union (leading to a single event interpretation). This is not surprising, as in languages with infinitives modals and aspectuals are typical restructuring verbs (see Rizzi 1982). Although restructuring in the Romance sense is not structurally evident in MG due to the absence of infinitives, it is still possible to find some of its interpretive effects, as is the case with control. If the matrix predicate is a non-control one, such as the volitional *thelo*, there is no requirement of D-dependency identification, since clause-union does not take place (but see section 5.2 for Romance).

(35) +Control -Control

|-----> TOLMO -----> PROSPATHO -----> THELO

[Gray box covering the segment between TOLMO and PROSPATHO]

<sup>11</sup> Manzini & Savoia (2006) argue that the Albanian ‘subjunctive’ particle *të*, which also realizes D, introduces a variable, which is in turn bound by some higher operator, i.e. by an operator in the matrix clause, triggering coreference where relevant.

Before we leave this section to consider control in *to*-infinitives, it may be worth saying a few words with respect to arbitrary control, as in (30b), and non-obligatory control, as in (30c), repeated below for ease of exposition:

- (36) a. Ine efkolo [*na* fijis/      fiji      kanis]  
           is easy prt leave-2s/leave-3s one  
           ‘‘It is easy (for one) to solve the problem.’’  
       b. O Kostas nomizi *oti* ine efkolo [*na* fiji]  
           the Kostas think-3s that is easy prt leave-3s  
           ‘‘Kostas thinks that it is easy to leave.’’

Arbitrary reference in MG requires a certain kind of lexicalization: either second person singular on the verb, or the presence of an indefinite pronoun, such as *kanis*. The latter case is straightforward: *na* directly licenses *kanis*. The former case is also straightforward: we have the usual D-dependency between *na* and verbal agreement. Given that 2<sup>nd</sup> person can be interpreted either specifically (the present hearer), or generically (the hearer in general), both readings arise within the *na*-clause, and ambiguity resolution is subject to the discourse conditions. Embedding of the *na*-clause under a predicate like *efkolo* (i.e. *ine efkolo na...*) maintains this ambiguity, as expected. If the matrix clause is interpreted generically, then the generic reading is selected; if not, then the specific reading is selected. (36b) differs as the most embedded predicate is in 3<sup>rd</sup> person. Again the interpretation of the most embedded subject can vary, depending on whether a generic (for one to leave) or a specific (*o Kostas*, or some other specific *x*) (temporal) interpretation is at stake (see Manzini & Roussou 2000).

To summarize, in the present section I have considered control in MG. The two interacting factors concern the internal structure of *na*-clauses and the lexical properties of the matrix predicate. The bound reading associated with control arises in those contexts where the matrix and the embedded clause are interpreted as a single event; this kind of clause-union makes the embedded predicate (along with its event and temporal structure) dependent on the matrix one for its interpretation. Having considered control in MG, we next turn to how this analysis can extend to English.

## 5. Control in *to*-infinitives

### 5.1 *The properties of the infinitival marker to*

The aim of this section is to show the similarities between the two morphemes *na* and *to*, and consider the implications for control. The standard assumption is that *to* is an infinitival marker and as such it is the realization of non-finite I (Chomsky 1977, Pullum 1982). Note, on the other hand, that the distribution of *to* is quite similar to that of *na*: it introduces complement clauses, as in (37a), it appears in matrix clauses (optatives), as in (37b), and it obligatorily follows an overt subject, as in (37c&d) (with or without *for*) vs. (37e):

- (37) a. I forgot *to* lock the door.  
       b. *To* be in Paris!  
       c. I want him *to* leave.  
       d. I arranged for him *to* leave.  
       e. \*I want *to* Peter leave.

The overt subject in (37c&d) bears accusative case due to the presence of *for* or *want* accordingly. The situation is different in MG, where the embedded subject appears in the nominative and has a freer distribution. In English, on the other hand, word order is fixed, a property which relates to the non pro-drop character of the language along with the absence

of morphological case. A further difference has to do with verbal morphology: while the verb in *na*-clauses fully inflects, the verb in *to*-clauses does not inflect, but appears in its stem form. Finally, while only negation and clitics may appear between *na* and V, in English we can find, apart from negation, adverbs (“to completely abandon the case”), but crucially for our purposes no lexical subject.<sup>12</sup>

Suppose then that on the basis of its distribution, *to* is much closer to *na*. In other words, *to* is also part of the lower C-system, and more precisely it corresponds to the realization of the M position, as argued by Roberts & Roussou (2003: chapter 3). The treatment of *to* as a C-type element is not novel. For example, Rosenbaum (1967:25) calls *to* a complementizer; Lencho (1992) offers empirical arguments in favor of its C status; Kayne (2000: 297ff) points in this direction based on the similarities between *to* and the Romance prepositional complementizers *de/di*. On the other hand, we need to accommodate the fact that *to* is also incompatible with typical complementizers, such as *that* (and conditional/interrogative *if*), as shown by the example in (38):

(38) \*I decided *that to* leave.

While in the case of *na*, its incompatibility with *oti/an* was attributed to *na* itself (both in M and Op), this may not be the right approach for *to*. To be more precise, the incompatibility between *to* and *that* may be due to the dual feature specification of the latter, which seems to realize both M and Op. In particular, Rizzi (1997) argues that *that* is specified for clause-typing (+declarative), but also for finiteness. Its presence in the lower C position (M in our terms) is supported by the fact that it interacts with subject extraction (the *that-t* effect). The suggested structures are the ones given in (39):

- (39) a. [Op [M *to* [I I ...]]]  
 b. [Op *that* [M (that) [I I ...]]]

The incompatibility of *to* with *that* is then attributed to the fact that they both relate to M.

Leaving aside for present purposes the properties of *that* and focusing on *to*, we expect that as an element that lexicalizes M and has a distribution similar to *na*, it also has an effect on the lexicalization of D. In other words, *to* has a D feature which suffices to lexicalize the typical D position of the subject in the I domain. The structure is as in (40):

- (40) [Op [M *to*<sub>D</sub> [I [v leave]]]]

The structure in (40) correctly predicts the unavailability of a lexical subject between *to* and the verb, i.e. \**to John leave*. In this respect, we are in a position to account for the absence of an EPP/D position in *to*-clauses that had to be somehow stipulated in earlier analyses (Castillo, Drury & Grohmann 1999, Manzini & Roussou 2000, Hornstein 2003). In terms of the present approach, the absence of an EPP effect associated with I follows from the lexicalization parameter that relates to *to*.

Before we proceed to the interpretation that is assigned to the unrealized embedded subject, mediated by *to*, let us first see if there is some independent evidence that would support the presence of a D feature associated with *to*. Note that synchronically, the morpheme *to* is also categorized as a preposition for the expression of either the locative (motion towards) or the dative (the recipient of an action), as in (41):

<sup>12</sup> According to Roberts & Roussou (2003) this difference between Greek and English may follow from the fact that V raises to I in Greek but not in English (see Pollock 1989).



- (41) a. (I'm going) [<sub>P</sub> to [<sub>D</sub> the market]].  
 b. I gave the book [<sub>P</sub> to [<sub>D</sub> the student]].  
 c. I gave the student the book. (Dative shift)

Presumably the presence of *to* in these constructions is not accidental, as there is some link between the two readings. Christidis (1990), based on observations by Bolinger (1975), argues that the two instances of *to* (preposition, infinitival) are actually related and reduce to the same element 'TO', whose basic property is linked to locality (motion towards). As the construction in (41c) moreover shows, the *to*-complement in (41b) is the substitute for the dative shift, which has a more restrictive distribution compared to the PP-periphrasis. The above examples show that *to* has a nominal function. If we want to maintain, that the two occurrences of *to*, as P and a C-type element, are actually related, then we would have to say that *to* in 'infinitives' also has a nominal property.<sup>13</sup> Apart from its synchronic character, this claim can also be supported diachronically. According to Los (1999), *to* in 'infinitives' became a substitute for the corresponding nominal inflection which became obsolete. Furthermore, *to*-clauses also replaced some subjunctive ones, a property that is compatible with the M character of *to* in its clausal function.

Note at this point that there is a parallel pattern of development between *to* and *na*. On these grounds, we can rather safely assume that just like *na*, *to* also bears the D feature (+/-definite). The different readings associated with *to* arise through the different complements it can take. For our purposes, the postulation of a D-feature can also account for the absence of a D-subject position associated with I: *to* lexicalizes D, rendering the projection of the D/EPP position unnecessary. Within this framework of assumptions, the MG subjunctive (and the Balkan in general) and the English infinitive are more alike than previously thought. Strictly speaking, the MG subjunctive is not a subjunctive in morphological terms, just like the English infinitive is not an infinitive in morphological terms either. What they have in common is the use of a nominal element in the M position; where they differ is in the use of an inflected (MG) vs. an uninflected (English) verbal form. As we will see below, this parametric difference can account for the wider distribution of control in English.

Having provided a brief discussion of how prepositional and infinitival *to* may be related in terms of their D feature, we can now turn to the interpretation of the unrealized subject and account for the differences that may arise with respect to MG.

## 5.2. Control in *to*-complements

As already pointed out, *to*-clauses distribute very much like *na*-clauses. One basic difference between the two has to do with the absence of inflection on the embedded predicate inside the *to*-clause, while in MG the verb always carries inflection. With respect to the interpretation of the unrealized subject in the case of MG, it was argued that the D of *na* and the D of verbal agreement match for the purposes of interpretation. Since in English there is no D on the verb, as the absence of inflection suggests, there is no matching of D features inside the *to*-clause. Instead, any matching will have to take place outside the *to*-complement, to the extent that this is possible, as in the case of control.

Recall also that in Landau's (2004) analysis, we can identify C- and F-subjunctives: the former exhibit obligatory control, while the latter allow for free reference (or for two different derivations/representations in his terms). Presumably the absence of a finite verbal

<sup>13</sup> See Kayne (2000) for a recent discussion on the similarities between P, C, and D. The discussion so far shows that these three categories could reduce to the each other. However, this is beyond the scope of the present paper.

form makes the extension of this distinction unavailable in English. However, Landau (2000, 2004) argues that not all infinitival complements behave alike with respect to control (see also Wurmbrand 2001: chapter 4). More precisely, he distinguishes between Exhaustive (EC) and Partial Control (PC) complements. In EC the reference of the embedded subject is exhausted by that of a matrix argument (the controller), while in PC its reference is included in that of a matrix argument, as illustrated in (42) (Landau 2004: 833-834):

- (42) We thought that....
- a. The chair preferred to gather at 6.
  - b. Mary wondered whether to apply together for the grant.
  - c. \*John managed to gather at 6.
  - d. \*Mary is able to apply together for the grant.

The examples in (42a&b) are instances of partial control, triggered by the predicates *prefer* and *wonder*. The predicates *manage* and *be able* in (42c&d) exhibit exhaustive control and are therefore incompatible in this context (indicated by predicates like *gather*, or modifiers like *together*).

According to Landau's analysis, modals, aspectuals and implicatives (e.g. *dare*, *manage*, *forget*, *force*) give rise to EC. On the other hand, desideratives (e.g. *want*, *prefer*, *decide*), interrogatives (*wonder*, *ask*), factives, and propositionals (e.g. *say*, *declare*, *imagine*) yield PC. Notice that modals and aspectuals behave in the same way as in MG: obligatory (and exhaustive) control. Implicatives include the predicates that we have identified as future-referring and which form a class whose members behave more liberally in MG. Desideratives include volitionals, which are also not control predicates in MG. The latter holds for the class of propositionals as well, which includes verbs of saying or epistemics, which again do not give rise to control. Despite the different classifications used by Landau, certain similarities can indeed be found between *na*- and *to*-complements as far as obligatory (exhaustive) control is concerned. Furthermore, EC goes along with anaphoric Tense (as in C-subjunctives), while PC goes with dependent Tense (as in F-subjunctives), as in (43) below:

- (43) a. \*Yesterday, John was able/managed to solve the problem tomorrow.  
 b. Yesterday, John wondered how/hoped to solve the problem tomorrow.

Thus despite apparent differences the picture that emerges is more or less the same (allowing for some variation in terms of some in-between predicates regarding control).

The absence of inflection in English has an effect on the expression of disjoint reference as well. Recall that in MG, disjoint reference is directly expressed by verbal agreement. In English, on the other hand, this is possible to the extent that some other element is present; this is the case of the so-called prepositional complementizer *for*:

- (44) a. John arranged for Mary to leave.  
 b. Peter was able (\*for Mary) to leave.

The future-referring predicate *prefer* allows for an overt subject, which is licensed by *for* and is realized above *to*. The modal *was able*, on the other hand, does not allow for this option given that it triggers EC. Note that a verb like *try*, may also allow for disjoint reference, although coreference is always favored, in a way similar to MG (examples from Jackendoff & Culicover 2001):

- (45) a. John tried (very hard) (for his kids) to have a better life.  
 b. Arlene begged Sue (for Charlie) to leave.

For Jackendoff & Culicover, whether control is obligatory or not has to do with the option of selecting different types of complement clauses, subject of course to the semantic properties of the matrix predicate. It is not so clear though on the basis of the surface structure at least how the two options are to be distinguished. The data in (45) simply show that there is a varied degree of acceptance regarding the option of disjoint reference within the relevant class of predicates.

Consider next the realization of the DP subject in the *for to*-clauses. If *to* is in the lower C, the DP subject in (44a) (and (45)) will have to be in the C-system as well. Let us assume that the prepositional complementizer *for* occupies the Op position, while the DP activates a D position in the C-system, as in (46):

- (46) [D John [I [V prefer [Op for [D Mary [M to<sub>D</sub> [I [V leave]]]]]]]

The presence of a D element above *to* triggers feature matching with the D of *to*. As a result of this relation, the reference of the unrealized subject lexicalized by *to* becomes identified with that of the DP, and therefore the DP *Mary* is interpreted as the embedded subject. The element *for* closes off the domain of the embedded *to*-clause, making coreference with the matrix subject (or object) unavailable. In this respect *for* behaves like an obviator.<sup>14</sup>

Suppose instead that *for* is not present, as in (47) below:

- (47) a. John dared/was able to leave.  
 b. John arranged to leave.

The matrix predicates belong to two difference classes: *dare* gives rise to exhaustive control, while *arrange* to partial control. According to what we have said so far regarding control predicates in MG, *dared/was able* should give rise to clause-union, so that both the matrix and the embedded clause are interpreted as (sub-) parts of a single event. No such effect should pertain in (47b) though, given that partial control or disjoint reference may arise. However, as it stands the construction in (47b) can only converge with coreference. The other two readings can only arise if there is something else present in the structure, such as a collective predicate (*gather*), or *for*. In MG, on the other hand, disjoint reference in the equivalent of (47b) is always available, without requiring anything additional in the embedded clause:

- (48) O Kostas kanonise    *na* fiji.  
 the Kostas arranged-3s prt leave-3s  
 “Kostas arranged (for himself or someone else) to leave.”

The obvious question then is what is responsible for this parametric difference. It is at this point that the presence of agreement in the *na*-clause, and its absence in the *to*-clause plays a crucial role. To be more precise, disjoint reference in MG is always an option, unless there is something in the structure that would force coreference, as in the case of *na*-clauses embedded under a control predicate, which in turn gives rise to clause-union; in this case coreference is the result of a bound interpretation. In English, on the other hand, in the

<sup>14</sup> This discussion naturally raises questions about Exceptional Case Marking (ECM), but we leave this aside.

absence of any mediating agreement, coreference appears to be the only option, unless there is something else in the structure that brings in disjoint reference or partial coreference. Incidentally, as we will see below, this is reminiscent of the effect morphological subjunctive has on volitional complements in Romance: subjunctive forces obviation, while infinitival morphology forces control.

Going back to the example in (47b) then, we observe that in the absence of any other mediating element that would assign reference to the D feature of *to*, the latter becomes identified with the first available DP in the matrix clause. This allows us to maintain the difference between exhaustive and partial control, as in the former case, clause-union in the sense defined in the present paper is as at stake, while this is not so in the latter. The outcome may look the same but is due to different reasons. As in the case of *na*-complements, we maintain the same status for the *to*-clause (i.e. *to* in M, lexicalizing D as well), attributing the different interpretations, not to the presence of abstract features relating to Tense and Agreement (cf. Landau 2004), but to the properties of the embedding predicate. If no embedding is available, the *to*-clause converges with a modal interpretation, as in (37b).

The preceding discussion shows that an alternative approach to control may indeed be available. Taking MG as the starting case has allowed us to view control in English as well from a new perspective, by paying particular attention to the properties of *to*. In this context, the postulation of PRO, with the extra technical assumptions it introduces, such as null Case for example (see Chomsky & Lasnik 1993, Martin 2001, among others), does not arise. The absence of a subject position related to I in *to*-clauses is derived independently from the lexicalization (feature content) of *to*. Finiteness, in the sense of verbal inflection for tense and agreement, seems to play a role with respect to the interpretation assigned to the unrealized embedded subject, as it makes more options available in MG, as opposed to English. Finally, within this system, we have a way to unify, to the extent that this is possible, ‘subjunctive’ and ‘infinitive’ clauses of a certain kind, namely those that are introduced by a mood particle of some sort, which carries the D (+/-definite) property.

Before we conclude our discussion, it is worth saying a few words with respect to the absence of obviation effects in *na*-complements of volitionals. According to the analysis presented in this paper, volitionals do not give rise to clause-union, and therefore free reference is available (*contra* Terzi 1992, Landau 2004). On the other hand, volitionals in Romance trigger obviation when the *que*-complement is in the subjunctive. The relevant French examples are repeated below:

- (49) a. \*Je veux que je parte  
I want-1s that I leave.subj-1s  
b. Je veux partir.  
I want-1s leave.inf.  
“I want to go.”

The different effect that volitionals have in the two grammars can be attributed to two interacting factors: first, that MG, unlike Romance has no morphological subjunctive, but makes use of a mood particle. Furthermore, this difference is encoded as part of the C-system in MG, but as part of the I-system in Romance. Note that the complementizer *que* is not sensitive to the indicative vs. subjunctive mood (but see Giorgi & Pianesi (2004) for a different account regarding Italian *che* at least). Second, an infinitival complement is available, as in (49b), and if what we mentioned above with respect to English *to*-infinitives somehow extends to the Romance ones (although here there is no mood particle, but specialized infinitival morphology), then the context for control is independently available

(for a competition approach between Romance infinitives and subjunctives, see Farkas (1992), Schlenker (2005)).

On the basis of the above, we can offer the following tentative account: suppose that volitionals in Romance fall in the class of restructuring verbs (Rizzi 1982). As such they trigger clause-union, and control becomes available when the complement is an infinitive. In present terms, the D feature associated with the infinitival ending (which does not inflect for person and number) becomes identified with the D feature provided by the matrix subject (with or without the mediation of verbal agreement in the matrix clause), and as a result the (unrealized) embedded subject receives its reference from its controller. A finite clause headed by the complementizer *que* in this context blocks clause-union, in the same way as *for* does in English infinitives. As already mentioned, the complementizer *que* is indifferent to mood selection; on the other hand, the availability of verbal subjunctive in the embedded clause can account for the modal reading associated with the matrix (volitional) predicate. Unlike the mood particle *na*, the complementizer *que* does not interfere with the lexicalization of D. Since the embedded D and the matrix one cannot be part of the same dependency, the only option is for the embedded one to acquire a disjoint reading. In other words, *que*, unlike *to* and *na*, does not mediate for the purposes of a bound interpretation.

As pointed out by Ruwet (1984), the obviation effect is uplifted once certain other conditions hold. For example, the less agentive the embedded subject, the more available coreference becomes, as in (50):

- (50) Je veux    que je puisse partir.  
      I want-1s that I can.sub leave  
      “I want to be able to leave.”

The presence of a modal in the embedded clause has the effect of allowing for coreference more readily. This is slightly reminiscent of the examples with *thimame* in Greek (16), where coreference may be forced or not depending on how the inflectional properties of the matrix and embedded clause interact with each other. In the case of MG *thimame*, negation along with present tense in the matrix clause brings in an epistemic reading, followed by free reference as far as the embedded subject is concerned, and thus removing the conditions for control.

To summarize: in this section I have considered the distribution of *to*-complements and their similarities with *na*. It was argued that both elements have a D feature which subsumes the lexicalization of the D (subject) position associated with I. Control arises in those contexts where clause-union is at stake, more or less along the lines of Landau’s (2004) distinction between C-subjunctives and EC infinitives (vs. F-subjunctives and PC infinitives). It was further shown that control has a wider distribution in English, as opposed to MG; this was attributed to the fact that the presence of agreement on the embedded predicate in MG always makes free/disjoint reference available, unless the *na*-clause is embedded under a control predicate. In English, on the other hand, the absence of agreement always favors control, unless some other element (such as *for*) intervenes. It was also shown that in accordance with other analyses, control is a phenomenon that is not sensitive to the +/-finite distinction, but can be sensitive to the C-system. In present terms, control in both MG and English passes through C (M).

## 6. Conclusion

The aim of this paper has been twofold: first, to consider the properties of the particle *na* and by consequence of English *to*, and second, to discuss the role these elements play in control phenomena. Following the idea that *na* is a morpheme situated in the left periphery, and more

precisely in M, it was argued that it has a D feature as well. Empirical evidence for this claim was offered by its presence in presentational contexts. A similar argument was made for English *to* on the basis of its presence in locative (prepositional) contexts. The absence of an overt subject in the I-system in *na/to*-clauses was attributed to the fact that the modal particles in M provide a lexicalization of this feature in any case. An overt DP is possible, albeit in a peripheral position. The interpretation of the embedded subject passes through *na/to*. If the selecting predicate is a control predicate, then clause-union is triggered and the interpretation of the embedded subject is identified with that of a matrix argument. MG ‘subjunctives’ and English ‘infinitives’ were shown to share a number of properties, primarily exemplified in the case of control, making the link between the two constructions more obvious.

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