

# Greek Subjunctive Marker *na*: Temporal Anchoring in the DP Domain

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ABSTRACT. The goal of this paper<sup>1</sup> is to propose an account for those cases where the *na* marker is prohibited although expected according to the semantics of the verb. This shows that *na* marker and other markers of the same category are not always crucial for the anchoring of the perfective non-past (PNP) dependent verb form in plain Free Relative (FR) structures. Finally it shows it is possible for time reference to come from other domains in the structure besides the CP domain

## 1 Necessary background

Before we present an analysis<sup>2</sup>, it is necessary to provide some necessary background. The verb system in Greek employs three main morphological distinctions regarding the mood, the tense and the aspect in a binary mode, as follows:

- (1) Mood distinction:  $\pm$  imperative
- (2) Tense distinction:  $\pm$  past
- (3) Aspect distinction:  $\pm$  perfective

According to this distinction, we can have the following aspectual classes, for example. Example (a) is the imperfective non-past, (b) is the imperfective past, (c) is the perfective past, and (d) is the perfective non-past:

- |     |    |  |    |  |
|-----|----|--|----|--|
| (4) | a. | <i>Milao</i><br>speak.1sg<br>'I speak.'  | b. | <i>Milusa</i><br>was speaking.1sg<br>'I was speaking.' |
|     | c. | <i>Milisa</i><br>Spoke.1sg<br>'I spoke.' | d. | <i>Miliso</i><br>speak.1sg<br>'I speak.'               |

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<sup>2</sup> An extended version of this paper can be obtained by emailing the author.

The case that will engage us is (d), namely, *perfective non-past* (PNP). While all other verb forms can also occur alone in the structure, PNP has to combine with one of the markers of mood or tense that Greek employs. This set of markers includes *na* (subjunctive), *an* (conditional), *as* (optative) and *tha* (future). I will focus on *na* (subjunctive) and its conflict with plain Free Relative pronouns in (5).

## 2 Problems with the previous analyses

- (5) O-pjos                      (\*na) milisi                      tha      fiji  
    The-who.interrog    SUBJ<sup>3</sup> speak.3sg.PNP    fut      go.3sg.PNP  
    ‘Whoever speaks will go out.’

Previous analyses seem to make the wrong prediction regarding the obligatory presence of the marker. If the marker is obligatory in the structure so it can denote the mood or contribute the utterance time, then why do we have an ungrammatical sentence in (5)? The example in (5) raises the following questions:

- What exactly does the PNP need and what exactly does the *na* marker provide to the PNP?
- What is the locus of the conflict between the plain FR and the *na* marker?
- Why the marker *na* is impossible in the structures with plain FR?

My proposal before we move in the main analysis is that the DP domain of the plain FR can also provide the temporal anchoring of the PNP dependent verb form. CP is not the only domain in the sentence providing this.

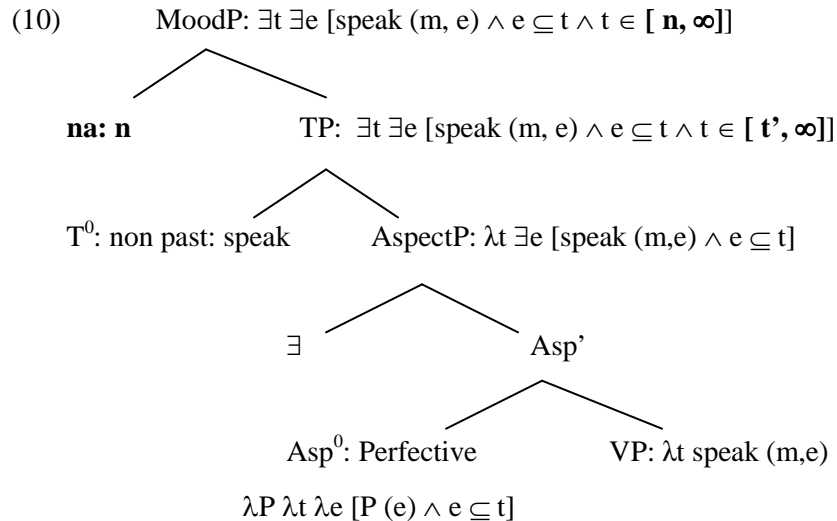
## 3 The analysis

Giannakidou (2007) argues that the PNP in Greek is a dependent verb form. This means that the verbal dependent introduces an open interval, which always needs a reference time to anchor its left boundary. Otherwise, we have ambiguous interpretation between the present and a future time. The left open boundary needs to be anchored by an antecedent. Particles like *na* (subjunctive), *an* (conditional), *as* (optative) and *tha* (future) provide this open interval. These particles introduce a time parameter (or, utterance time) independently since the PNP cannot introduce it. The utterance time then serves to anchor the left boundary of PNP, thus yielding a future time reading. For example:

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<sup>3</sup> SUBJ = subjunctive





Notice in this derivation that adding *na* disambiguates the interpretation of the sentence. Now, the event of speaking starts at the time of utterance and stretches to infinity. Notice the following difference between the derivations in (8) and (10):

- a. LF Derivation in (7) provides:  $[t', \infty]$  = the event starts at a time, which is non-past (without further definitions)
- b. LF Derivation in (9) provides:  $[n, \infty]$  = the event starts at the utterance time and stretches to infinity

The *na* marker binds the left open boundary of the open interval that the PNP offers in the structure. The PNP is always dependent. Crucially *na* is not necessary in the structures with a plain FR. I propose that a plain FR can offer the temporal anchoring of the PNP verb form. In contrast with the previous theories, the DP domain of the plain FR can provide the time reference that the PNP needs.

Observe the following clauses. Notice the difference between the plain FR pronoun in (11) – (12) and the interrogative pronoun in (13) – (14). The plain FR consist of the definite article *o* and the interrogative pronoun *pjos* (*o* + *pjos*)

- |      |                          |                   |                 |
|------|--------------------------|-------------------|-----------------|
| (11) | <b>O</b> - <i>pjos</i>   | <i>eryasti</i>    |                 |
|      | <b>The</b> -who.interrog | work.3sg.PNP      | ‘Whoever works’ |
| (12) | <b>*O</b> - <i>pjos</i>  | <i>na eryasti</i> |                 |
|      | <b>The</b> -who.interrog | SUBJ work.3sg.PNP | ‘Whoever works’ |
| (13) | <b>*Pjos</b>             | <i>erghasti</i> ; |                 |

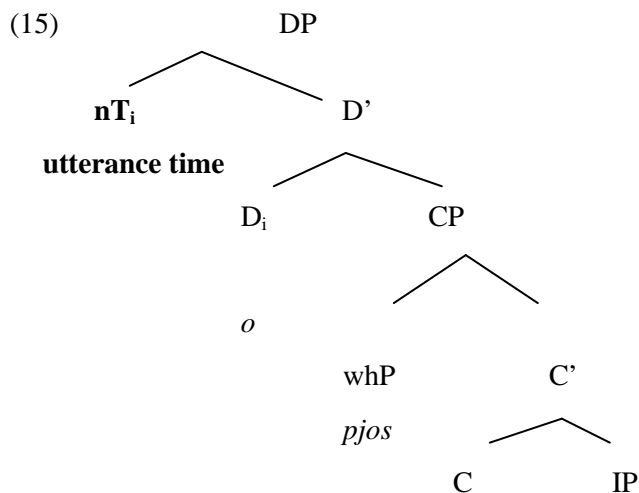
**Who.interrog** work.3sg.PNP  
'Who should work?'

- (14) **Pjos** na erghasti;  
**Who.interrog** SUBJ work.3sg.PNP  
'Who should work?'

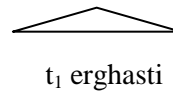
When the definite article *o* is taken away from the plain FR *opjos*, the *na* marker can be present. In any other case *na* is prohibited. Taking this into consideration, I assume that the plain FR provides a reference time to anchor the open interval of the PNP. In other words, the DP and specifically the definite article is the locus of reference time. Nevertheless, two conditions need to be satisfied; first, the DP of the plain FR must denote a plural entity, and second, the DP of the plain FR must describe a series of separate events of the same kind. Both conditions are satisfied in the case of the plain FR. Giannakidou & Cheng (2006) argue that the definite article *o* acts like an iota operator creating plural entities containing all those individuals who have a particular property. In addition, the plurality is that one that occupies the time interval. In this vein, this interval is the whole duration of the event in which the unbounded open interval of the PNP verb form identifies a reference time.

Plural entities can affect the aspect of a verb (Kearns 2000). Plain FR in Greek denotes plural entities. Thus, they can have reference time and bind the open left boundary of the PNP verb form. I assume that the DP of the plain FR in Greek can indeed introduce time reference in the sentence by the terms we have established in the previous section. I propose the following internal structure of the DP for the plain FR in Greek following Giannakidou & Cheng (2006), who argue for a Free Choice Item analysis and Lecarme (1996) who argues for T-chains in the DP domain:

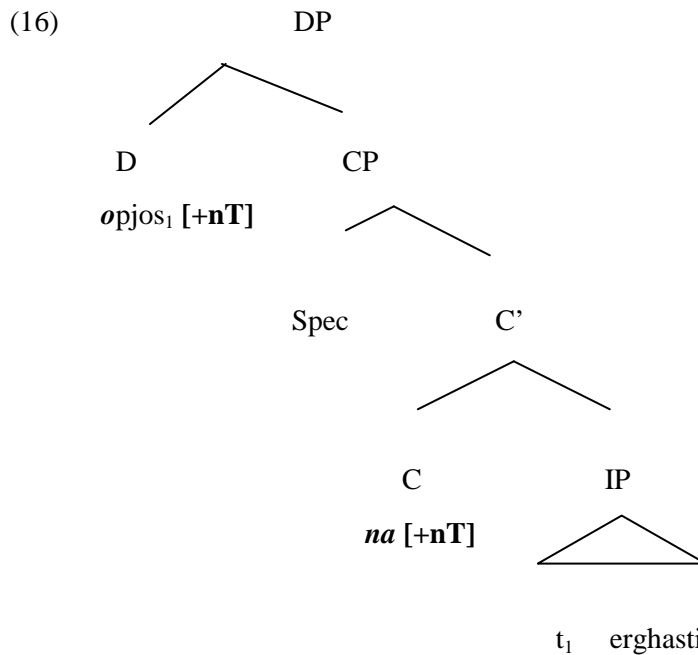
Derivation of (11): **O**-pjos erghasti  
**The**-who.interrog (FR) work.3sg.PN  
Whoever works



Greek Subjunctive Marker *na*: Temporal Anchoring in the DP Domain



The DP of the plain FR in Greek can introduce time reference. In contrast with all the previous theories that argue for tense occurring in CP we showed that time reference is also possible through a DP. The nT binds D temporally thus offering a point of reference for the PNP verb. The *na* marker is impossible in these constructions (FR) because the PNP needs only one temporal anchoring.



The DP domain (D head) and the CP domain (C head) will conflict in terms of reference of time (nT)<sup>5</sup>. Now, if we assume that *na* and *tha* have the same semantic contribution in the structure – they offer the *n time*- then *tha* also has an [nT]. However, we encounter perfectly grammatical structures that combine both a plain FR and *tha* but not a plain FR with *na*. Does this mean that our hypothesis fails to explain the incompatibility of the plain FR and *na*? Markers *na* and *tha* have the same semantic function. They contribute the *n time*. However, while they have this common property they do not overlap. I assume that the incompatibility of plain FRs with *na* is due to these properties of the marker. *Na* is both an assertive and a subordinating marker that is posited in C head. In contrast, *tha* is used only in assertions in T head.

Nevertheless, it is not always the case that plain FRs like *opjos* conflict with *na*. Especially when a FR is followed by the connective *ke* (= and). **DP cannot spread** the reference time that the definite article triggers so it can bind the open interval of PNP because of the mediating *ke* (= and). That is the reason that the

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<sup>5</sup> nT = utterance time



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