

# Obligatory Object Control constructions in Greek: an LFG/XLE treatment

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## The problem

-In the existing analyses there is no consensus on how to define the verbs licensing Obligatory Object Control constructions (OOC) in Greek *na* subordinate clauses.  
 -In Greek OOC there is no featural identity between the controller and the controllee.  
 -This makes the implementation of OOC in an LFG/XLE Grammar problematic.

## Obligatory Object Control in *na* subordinate clauses

-The object of the matrix clause is always overt and functions as the controller of the subject of the *na* complement.  
 -In Greek the object controller can be marked by accusative (1), genitive case (2) or it can be embedded within a PP (OBL-TO) (3).  
 (1) O Kostas mathainei **th Maria** na milaei Agglika.  
 The-DEF Kostas-NOM teaches-3SG the-DEF **Maria-ACC** to-COMPL speak-3SG English-ACC  
 ‘Kostas teaches Maria to speak English.’  
 (2) O Kostas mathainei **ths Marias** na milaei Agglika.  
 The-DEF Kostas-NOM teaches-3SG the-DEF **Marias-GEN** to-COMPL speak-3SG English-ACC  
 Kostas teaches Maria to speak English.’  
 (3) O Kostas mathainei **sth Maria** na milaei Agglika.  
 The-DEF Kostas-NOM teaches-3SG **se-PP Maria-ACC** to-COMPL speak-3SG English-ACC  
 ‘Kostas teaches Maria to speak English.’  
 a. There is no featural identity between the controller and the controllee:  
 controller = ACC (1) / GEN (2),  
 controllee = NOM (covert = h Maria)  
 b. The controller is a PP while the controllee is an NP  
 controller = PP (3), controllee = NOM (covert = h Maria)

## Exhaustive Object Control Verbs

-In the literature there is no consensus on how to define the verb class licensing control constructions in Greek (Alexiadou and Anagnostopoulou 1999, Spyropoulos 2007, Kotzoglou and Papangeli 2007, Beys 2007).  
 -Drawing on the above literature we studied 18 verbs that are considered to take part in control constructions in the Hellenic National Corpus (HNC; <http://hnc.ilsp.gr/>).  
 -We found 7 verbs that license Obligatory Object Control in *na* subordinate clauses: mathainw ‘teach’, volhthw ‘help’, peithw ‘persuade’, empodizw ‘prevent’, protrepw ‘urge’, epitrepw ‘allow’, apagoreuw ‘forbid’.  
 -For the above verbs HNC provided us with 9054 examples in total.  
 -From these we annotated 4705 sentences that contained the structures we are interested in.

## *na* subordinate clauses

Following Fiotaki and Markantonatou (2014) we annotate *na* as a complementizer.  
*Na* complementizer : **a.** Combines with indicatives in the syntax. **b.** Restricts the semantic TENSE (+/- PAST) **c.** Allows the verb forms: na paizw, na paiksw, na echw paiksei, na epaiza, na epaiksa, na eicha paiksei.  
 All the verb types in (c) except ‘na paiksw’ are annotated by default in the feature TENSE (morphological tense).  
 The verb type ‘na paiksw’ instantiates the combination of perfective and non past (PNP) (Tsangalidis 1999, Giannakidou 2007, Iatridou et al. 2002).

## The corpus study

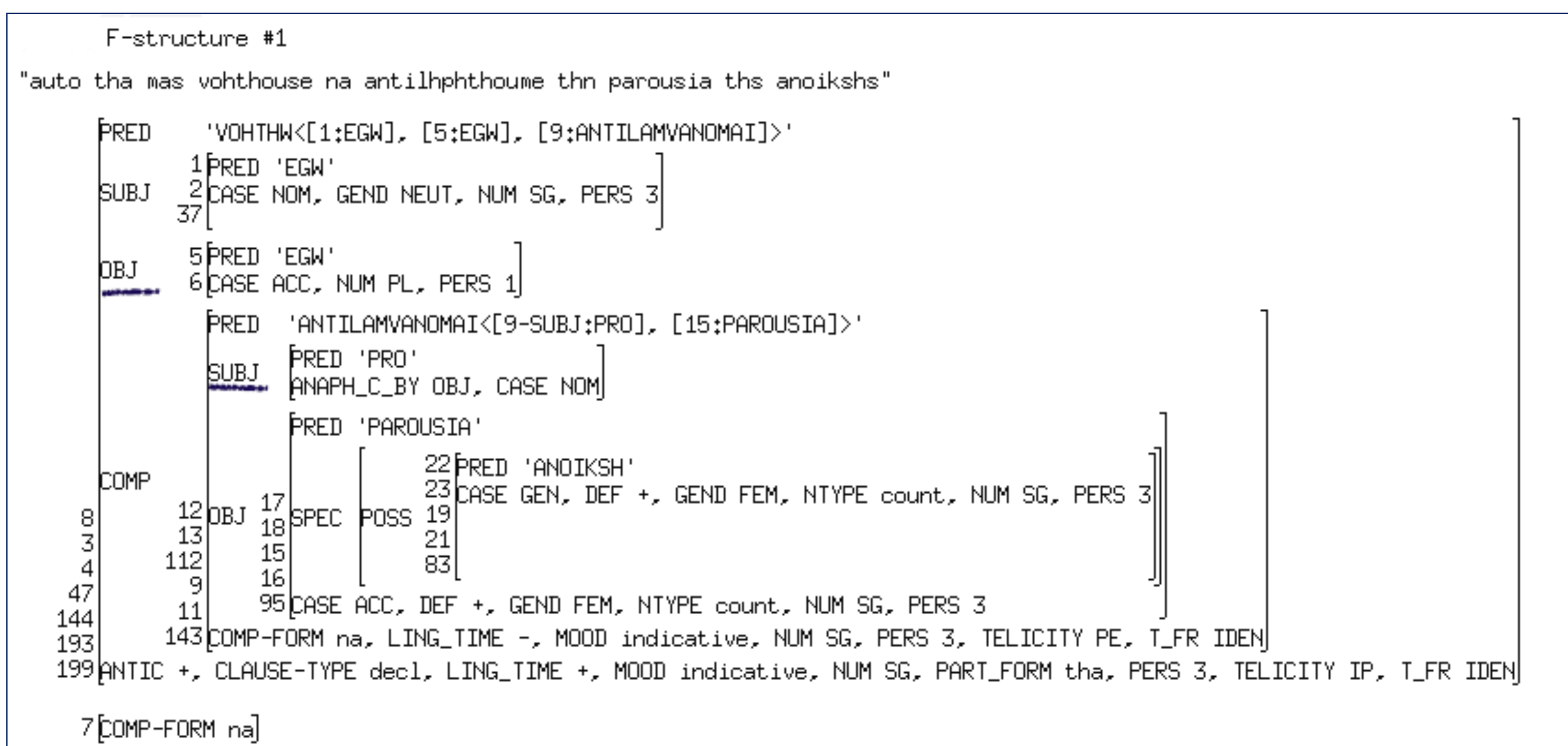
We annotated the 4705 sentences deriving from the HNC using the following annotation scheme:  
 -The labels NON PAST, PAST, FUTURE, FUTURE +PAST and PNP are used for both the verbs of the matrix and the *na* subordinate clause. These labels correspond to the temporal properties of the verb types based on the value of the feature TENSE. Future tenses needed to be distinguished (labels FUTURE and FUTURE +PAST) since the complementizer *na* stands in complementary distribution with the future particle *tha*. The label PNP was used for all the verb types corresponding to ‘na paiksw’.  
 -The labels ACC (OBJ), GEN (OBJ) and PP (OBL-TO) are used for the object of the matrix clause.  
 Annotated example: mas (OBJ-ACC) empodizei (NON PAST) *na* epituchoume (NON PAST) tous stochous  
 us-OBJ prevents-3SG to-COMPL achieve-3sg the-DEF goals-ACC  
 ‘It prevents us from achieving the goals’  
 This annotation gave us a clear picture of the structures supported by each verb.

## OOC in the LFG Framework

a. In English the subject of the infinitive is functionally controlled by the object of the matrix verb (Bresnan 1982). This analysis predicts featural identity between the controller (Mary=ACC) and the controllee (Mary=ACC)  
 (4) Frank persuaded Mary to leave.  
 b. Examples like (4) can also be treated using anaphoric control (Dalrymple 2001, Falk 2001). In these cases, the object of the matrix verb and the non overt subject of the embedded clause (PRO) are “both considered to be thematic arguments of their respective verbs, and so they must be two distinct D-structure elements” (Falk 2001:141)

## Our proposal

-The above analyses do not apply in Greek OOC since there is no featural identity between the controller and the controllee (1)-(3).  
 We propose treating OOC using anaphoric control which requires the presence of PRO.  
 -This PRO:  
**a.** Is a semantic form and thus should be introduced in the lexicon (Bresnan 1982).  
**b.** Is anaphorically controlled by the object of the matrix verb. This anaphoric relation must be overtly expressed in the f-structure. For this reason, we introduce a new feature “ANAPH\_C\_BY” with the value OBJ or OBL-TO.  
**c.** Requires nominative case:  
 i. The covert subject of the *na* subordinate clause (the controllee) always bears nominative case:  
 In non control cases the subject of the *na* subordinate clause is overtly expressed and bears nominative case.  
 O Giorgos-SUBJ/NOM eipe *na* kleisei o Dimitris-SUBJ/NOM to parathuro  
 the-DEF George-SUBJ/NOM eipe-3SG *na*-COMPL kleisei-3SG the-DEF Dimitris-SUBJ/NOM the-DEF parathuro-ACC  
 ‘George said Dimitris to close the window’  
 ii. The embedded subject modifier of the covert subject appears in nominative case and not in accusative (Spyropoulos 2007, Kotzoglou and Papangeli 2007, Beys 2007).  
 H Maria epeise **to Gianni**<sub>ACC</sub> *na* fugei teleutai-**os**<sub>NOM</sub> / \*teleutai-**o**<sub>ACC</sub>  
 the-DEF Maria-NOM persuaded 3SG- the-DEF **Gianni-ACC** to-COMPL leave-3SG **last-MOD-NOM**.  
 ‘Maria persuaded John to leave last.’  
 iii. Although there is a controllee, an overt pronoun in nominative case can be licensed in *na* subordinate clause for emphasis. This pronoun is coreferential with the object of the matrix verb.  
 Epeisa to Gianni-OBJ *na* erthei kai autos-PRN/NOM sto partu  
 Epeisa-3SG the-DEF Gianni-ACC/OBJ *na*-COMPL erthei-3SG kai-CONJ autos-PRN/NOM se-PP the-DEF party-ACC  
 ‘I persuaded John to (he) come to the party’



## Grammar testing

The test suite is derived from the annotated corpus and contains 50 sentences per verb.  
**Out of 350 sentences → 236 parsed**  
 Non parsed sentences:  
 -sentences with more than two embedded clauses  
 -sentences with embedded punctuation marks

## Future work

Study and model :  
 a. PNP structures in main clauses  
 b. Partial control constructions in Greek  
 Grammar improvements:  
 a. Coordination in *na* subordinate clauses

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