

## *Wh*-clauses as nominal complements: Evidence from Greek

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§1. **Setting the scene.** As is standardly assumed, under typical patterns of clausal complement selection (e.g., Grimshaw 1979; Groenendijk & Stokhof 1984; Lahiri 2002), predicates that select clauses belong to three classes: Antirogative (A) and Interrogative (I) predicates stand at the two ends of this classification (cf., (1) with (2)), while Responsive (R) predicates lie somewhere in the middle (cf., (3)):

(1) a. I *think* that Anna left.  
b. \*I *think* who left/if Anna left.

(2) a. \*I *wonder* that Anna left.  
b. I *wonder* who left/if Anna left.

(3) a. I *know* that Anna left.  
b. I *know* who left/if Anna left.

As in (1), the A-predicate *think* selects a declarative *that*-clause (cf. (1a)), but not an interrogative *wh/if*-clause (cf. (1b)). The opposite is true with the I-predicate *wonder* in (2): it selects an interrogative *wh/if*-clause (cf. (2b)), but not a declarative *that*-clause (cf. (2a)). R-predicates may select either type of clause, as shown by the licit (3a) and (3b).

In considering the selection of *wh*-clauses, Ross (n.d.) restricts attention to the I- and R-class of predicates, and argues, on purely semantic grounds, that each class selects a distinct type of *wh*-clause. More precisely, the I-class (represented by *wonder*) selects what Ross terms a “disjunctive *wh*-clause” (DWH), that is, a *wh*-clause that yields an information-seeking reading, whereby the speaker has total ignorance of the possible answer(s) to the question. This is shown in (2b), where the reading of the *wh*-clause implies that the speaker has no clue about “which person *x* is such that *x* left”. On the other hand, the R-class (represented by *know*) selects what Ross calls a “conjunctive *wh*-clause” (CWH), that is, a *wh*-clause whose reading implies that the speaker has total information about the possible answer(s) to the question. In other words, unlike the information-seeking reading of DWH, CWH give rise to a kind of factive reading (in the sense of Kiparsky & Kiparsky 1971). This is shown in (3b), where the interpretation of the *wh*-clause implies that the speaker “knows for every person *x*, if *x* left”.

Relying on semantic grounds, and concentrating on the two classes of predicates just mentioned, recent studies on clausal complementation provide a better understanding of the distinct types of clausal embedding (e.g., Uegaki 2015; Theiler *et al.* 2019; Mayr 2019). Yet, the A-class has traditionally been kept out of the relevant picture. In this talk, we extend the discussion of *wh*-clause selection to the A-class of predicates, and argue that a proper subclass of this class of predicates selects CWH, in the sense of Ross. However, unlike recent studies (and Ross), which give priority to the semantics of the relevant selection, we show that the selection of CWH by a subclass of A-predicates is conditioned over grammatical factors that span both syntax and semantics. In short, A-class predicates that select CWH clauses must be semantically licensed under certain environments and must be able to syntactically select a DP complement. In section 2, we provide the relevant empirical evidence (concentrating on Greek), which underpins the analysis in section 3.

§2. **Facts.** *Pistevo* (“believe”) in (4) and *nomizo* (“think”) in (5) each exemplifies a distinct subclass of A-predicates, in terms of selecting CWH:

- (4) a. *Pistevo oti i Anna efighe.*  
 believe-1sg that the-nom Anna-nom left-3sg  
 “I believe that Anna left.”  
 b. *\*(Dhen) pisteviv pjos efighe.*  
 neg believe-2sg who-nom left-3sg  
 “You don’t believe who left.”  
 c. *Pistevo ti fimi oti i Anna efighe.*  
 believe-1sg the-acc rumor-acc that the-nom Anna-nom left-3sg.  
 “I believe the rumour that Anna left.”
- (5) a. *Nomizo oti i Anna efighe.*  
 think-1sg that the-nom Anna-nom left-3sg  
 “I think that Anna left.”  
 b. *\*Dhen nomiziv pjos efighe.*  
 neg think-1sg who-nom left-3sg  
 “\*You don’t think who left.”  
 c. *\*Nomizo ti fimi oti i Anna efighe.*  
 think-1sg the-acc rumor-acc that the-nom Anna-nom left-3sg.  
 “\*I think the rumour that Anna left.”

Both *pistevo* and *nomizo* are non-factive, weakly assertive A-predicates, in the sense of Hooper (1975), which permit a *that*-clause as complement (cf., (4a) with (5a) respectively). Under the obligatory presence of an appropriate licenser—i.e., negation in (4b)—*pistevo* can take a *wh*-clause as complement, which yields a reading reminiscent of CWH. However, this is not true with *nomizo*, as shown by the ungrammaticality of (5b). Now, unlike *nomizo*, *pistevo* may permit a DP-complement (cf., (4c) with the illicit (5c)). Among 32 Greek A-predicates we have examined (for reasons of space we do not document them here), we have found that only those that permit a DP-complement may take a CWH as their complement. So, 15 out of 32 A-predicates pattern with *pistevo*, and the rest (i.e., 17) with *nomizo*. Moreover, apart from negative quantifiers, appropriate licensing environments for *pistevo*-type predicates are past tense, future modality and the possibility operator.

§3. **Proposal.** The empirical observation that only A-predicates that select DP-complements may select CWH strongly suggests that a D-layer structurally mediates the association between the relevant A-predicate and the CWH. (6) demonstrates this (abstracting away from various parts of the structure that are not relevant to the present discussion):

(6) [CP [NegP [Neg Dhen [IP (*pro*) [I pisteviv [D [CP pjos efighe]]]]]]]]

The structure in (6) is reminiscent of Adger’s & Quer’s (2001) Unselected Embedded Questions (UEQ), whereby a D-layer projects on top of an interrogative clause (that would be DWH in Ross’ terms) when this clause is embedded under a subclass of R-predicates. In fact, we hasten to note that both our A-predicates and Adger’s & Quer’s R-predicates are licensed under the exact same structural environments, which apart from the ones mentioned in section 2, include ‘only’ focus, antecedent of conditional, adversative predicates and without clauses. In short, the approach in (6) maintains a long assumption of the Generative Grammar, which can be traced back at least to Rosenbaum (1967), and says that (certain types of) clausal complement selection may reduce to some kind of nominalization.