# Marking the discourse in Greek wh-in situ questions\*

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### Περίληψη

Στο παρόν σύντομο άρθρο παρουσιάζεται ένα σαφές θεωρητικό επιχείρημα βασιζόμενο σε εμπειρικά δεδομένα τα οποία είναι καταγεγραμμένα στη σχετική βιβλιογραφία. Πιο συγκεκριμένα, υποστηρίζεται ότι οι in situ ερωτηματικές λέξεις δεν σχετίζονται με την αριστερή περιφέρεια της πρότασης στα ελληνικά. Ένα βασικό επακόλουθο αυτής της έλλειψης συσχέτισης αφορά στις ιδιότητες των in situ ερωτηματικών λέξεων στο λόγο, βασιζόμενοι στην τυπική υπόθεση ότι το C (εν μέρει) κωδικοποιεί τις ιδιότητες του λόγου. Εν συντομία, παρατηρείται ότι οι ερωτήσεις μερικής αγνοίας με in situ ερωτηματική λέζη, πρέπει να είναι αγκιστρωμένες στο λόγο, σε αντίθεση με τις ερωτήσεις μερικής αγνοίας οι οποίες έχουν την ερωτηματική λέζη στην την αριστερή περιφέρεια της πρότασης.

Keywords: ερωτήσεις μερικής άγνοιας, ερωτήσεις 'in-situ', λόγος, ελληνικά

## 1 Introduction

Information-seeking *wh*-questions in Greek, with a single *wh*-element, may come in two forms: alongside the default *wh*-fronting strategy (cf., (1a)), a *wh*-in situ configuration may also be available (cf., (1b)) (see, e.g., Sinopoulou 2009; Vlachos 2010, 2012, 2014, 2019, Roussou et al. 2013, Chiou & Vlachos 2017;  $\Sigma$ ινοπούλου 2019; Vlachos & Chiou 2020).

- (1) a. ποιόν είδες?
   who-ACC saw-3SG
   'Who did you see?'
  - b. είδες ποιόν? saw-3SG who-ACC 'You saw who?'
    c. είδα το Γιάννη saw-1SG the-ACC John-ACC 'I saw John.'

In (1), the *wh*-phrase *pjon* ("who") is the internal argument of the predicate *idhes* ("saw"), and may appear either at the left periphery of the clause, as in (1a), or in a position where a non-*wh*-argument of the verb typically surfaces, as the comparison between (1b) and (1c) demonstrates (note that, here and throughout, we translate *wh*-in situ questions in English following the Greek format, but we do not wish to raise any implications about English *wh*-in situ; for a discussion of the latter, see Pires & Taylor 2007).

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Cross-linguistically, all the approaches that have been proposed to account for information-seeking *wh*-in situ questions (hereafter, '*wh*-in situ'), despite their distinct technical implementations (see Vlachos 2012 for an overview), assume that *wh*-in situ is associated with the C-layer (i.e., the clausal left periphery). This assumption, in turn, reduces *wh*-in situ to a strategy that is 'alternative' to *wh*-fronting, as the latter is typically assumed to be linked to C (Chomsky 2000).

In this short contribution, we make the following argument: putting together empirical evidence from distribution and interpretation, already documented in the relevant literature, we show that Greek *wh*-in situ is not associated with C (section 2). Now, on the standard assumption that the C-layer encodes the discourse properties of the clause (see Rizzi 1997), we further propose, on empirical grounds, that lack of association with C affects the discourse properties of *wh*-in situ in certain respects (section 3). Section 4 concludes the discussion.

#### 2 "In situ" means in situ

Let us begin with the evidence from word order, in the context of (2) (from Kotzoglou 2006: 95, (3a), (3b) & (3d) respectively):

(2)	a.	η	Μαρία	αγαπάει	τον	,	Ηλία
		the-NOM	Maria-NOM	love-3SG	the	-ACC	Ilias-ACC
		'Maria loves	Ilias.'				
	b.	ποιόν	αγαπάει	η	Μαρία	x?	
		who-ACC	love-3SG	the-NOM	Maria	-ACC	
		'Who does I	Maria love?'				
	c.	* ποιόν	η	Μαρία	(	αγαπάει	?
		who-ACC	the-NOM	Maria-NO	DM 1	love-3S	G
		'Who does I	Maria love?'				

Kotzoglou (2006), among others, notes that *wh*-fronting questions obligatorily trigger inversion of the clausal S(ubject) over the V(erb), yielding a VS order. So, against the typical SV order of declaratives (cf., (2a)), *wh*-fronting must yield a VS order (cf., (2b)), whereby S cannot surface between the *wh*-element and V (cf., (2c)).

On the other hand, *wh*-in situ falls under a clearly distinct pattern. (3) demonstrates:

(3)	a.	η	Μαρία	αγαπάει	ποιόν?
		the-NOM	Maria-NOM	love-3SG	who-ACC
		'Maria loves	who?'		
	b.	(?)αγαπάει	η	Μαρία	ποιόν?
		love-3SG	the-NOM	Maria-NOM	who-ACC
		'Maria loves v	vho?'		

As we may observe, wh-in situ assumes the SV order (cf., (3a)), while S may appear between V and wh-in situ (cf., (3b)), without leading to ungrammaticality (albeit, perhaps, to a slight deviance).

On the standard assumption that reordering of V around S, in languages like Greek, is triggered by *wh*-movement (see Rizzi 1997, for a first discussion), word order facts

in (3) clearly point at lack of movement for *wh*-in situ. A piece of corroborating evidence for this comes from islands. Witness the minimal pair in (4):

(4)	a.	what y	ou-CL pu		[επειδή because ause you said?	είπες said-2SG	<τι>]
	b.	σε you-CL	-	i [επειδή G because	είπες said-2SG	τι]	

As has long been observed (see Horrocks & Stavrou 1987; Kotzoglou 2006, among others), Greek abides by the typical islandhood pattern, an example of which is (4) (from Vlachos 2012: 24, (5)). (4a) shows that extraction of *ti* ("what") out of a so-called *strong*-island (see Ross 1967 for a first discussion), which is the adjunct clause headed by *epidhi* ("because"), leads to an ungrammatical result (henceforth, copies of extracted items will be enclosed in angle brackets). Now, the grammaticality of (4b) says that *wh*-in situ resides inside the adjunct island.

Next, let us turn to issues revolving around clausal complementation. Typically, predicates that select interrogative clauses as complements fall into two major classes (see, e.g., Lahiri 2002): *Rogative* and *responsive*. A *wh*-fronting question can be the complement of either class of predicates, as shown in (5a) and (5b) respectively:

(5)	a.	αναρωτιέται	ποιόν	είδες	(Rogative)				
		wonders-3SG	who-ACC	saw-2SG					
		"S/he wonders who you saw."							
	b.	ξέρει	ποιόν	είδες	(Responsive)				
		knows-3SG	who-ACC	saw-2SG					
		"S/he knows v	vho you saw.'	,					

Now, a *wh*-in situ question may also be the complement of either class of predicates, but only if an appropriate complementizer is independently realized at the left periphery of the complement clause, that is, the clause that the *wh*-in situ element surfaces at (by 'independently', we mean a lexical item other than the *wh*-in situ element). This is shown in (6a), with the rogative *anarotjeme* ("wonder") and in (6b), with the responsive *ksero* ("know"):

(6)	a.	αναρωτιέται	*(av)	είδες	ποιόν?	(Rogative)
		Wonder-3SG	if	saw-2SG	who-ACC	
		"S/he wonders	s *(if) yo	ou saw who	?"	
	b.	ξέρει	*(av)	) είδες	ποιόν?	(Responsive)
		knows-3SG	if	saw-2	2SG who-A	ACC
		"S/he knows	*(if) you	ı saw who?'	,	

The ungrammaticality of (6), in the absence of an overt complementizer, says that the C-layer of *wh*-in situ does not carry interrogative properties, by default; if it did, a null C would satisfy the selectional properties of the matrix predicates in (6), contrary to facts. Supporting evidence for this observation comes from the grammaticality of cases like (7):

(7)	a.	ξέρει	οτι	είδες	ποιόν?	,	(Rogati	ive)
		Wonder-3SG	that	saw-2SG	who-A	CC		
		"S/he knows th	at you s	aw who?"				
	b.	νομίζει	οτι	είδε	ς	ποιόν?	(.	Antirogative)
		think-3SG	tha	t saw	-2SG	who-A	CC	
		"S/he thinks th	at you sa	aw who?"				

(7) says that the complementizer introducing *wh*-in situ may be declarative, under selection from a relevant predicate. In particular, a *wh*-in situ may surface in a *that*-clause, which serves as complement to either a responsive predicate (cf., (7a)), or an *antirogative* predicate that typically selects *that*-clauses (cf., (7b)). So, clausal complementation facts show that the interrogative properties of *wh*-in situ are not encoded in the C-layer that introduces the *wh*-in situ construction. This becomes clear with (7): if the C-layer of *wh*-in situ was obligatorily interrogative, as in the case of *wh*-fronting (say, (5)), then (7) would have been illicit, contrary to facts, because the same C-head cannot encode both interrogative and declarative features (see, e.g., Rizzi 1990).

An additional prediction tied to the above facts is that, since wh-in situ is not associated with C, the scope of a wh-in situ element is not encoded in C. This prediction is borne out, as becomes apparent in the case of wh-adjuncts. More in particular, witness (8) (from Vlachos 2012: 62, (15a)):

(8)	και and	5	έφυγες left-2SG		1 5				
<ul><li>a. 'How did you leave the party that early?'</li><li>b. 'How come you left the party that early?'</li></ul>								( <i>event</i> -related) ( <i>fact</i> -related)	

Building on Starke's (2001) independently motivated observation regarding French *wh*questions, Vlachos argues that Greek *wh*-fronting adjuncts like *pos* ("how") bear two readings: an *event*-related one (cf., (8a)), where the question is about the "manner" you left the party (thus, *pos* translates to a *manner* adverb); and, a *fact*-related reading (cf., (8b)), where the question is about the "reason" you left the party (accordingly, *pos* translates to a *reason* adverb). The two readings reflect two distinct scope positions of the *wh*-adverb. Specifically, the *event*-related interpretation derives from the 'low', so to speak, scope of the *wh*-adverb, presumably restricted to the area surrounding the predicate, while the *fact*-related reading reflects a 'high' scope of the *wh*-adjunct, associated with entire proposition, and encoded in the clausal left periphery.

Now, within this frame, consider the available readings of the *wh*-in situ counterpart in (9) (from Vlachos 2012: 62, (15b)):

(9)	και	έφυγες	τόσο	νωρίς	από	το	πάρτι	πώς?	
	and	left-2SG	such	early	from	the	party	how	
	a. 'How did you leave the party that early?'								(event-related)
									(fact-related)

As we may observe from the infelicity of (9b) (the sign '#' stands for infelicity to context), the *wh*-in situ adjunct scopes only 'low' in the structure (cf., (9a)), while the 'high' reading, which related to C, is unavailable.

By way of summary, let us take the empirical argument in this section home: the facts show that *wh*-in situ is not associated with C, neither via (any kind of) movement

(SV order; islands), nor via (long-distance) Agree (scope). C in *wh*-in situ is not interrogative by default, which is shown in cases of selection, where C surfaces in the guise required by the matrix predicate, be it interrogative or declarative.

In the next section, we examines some of the implications that the lack of association with C raises for the discourses properties of *wh*-in situ.

#### **3** Discourse properties of *wh*-in situ

As Rizzi (1997: 283) phrases it, "[w]e can think of the complementizer system as the interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause)." So, in part, C encodes the discourse of the clause. If so, then, we contend that lack of association with C affects the discourse properties of *wh*-in situ. More in particular, as has long been observed in the relevant literature on Greek (and not only), *wh*-in situ must be *anchored* (or, *tied*, which will use interchangeably) to the immediate (extra-)linguistic environment (see Vlachos 2012, for a first discussion of the discourse properties of *wh*-in situ in Greek, where the idea of "anchoring" is introduced). Here, we argue, based on already reported empirical data, that this anchoring is manifested in at least two respects.

One piece of empirical evidence which shows that wh-in situ must be associated with the discourse is its infelicity in, so called, "out-of-the-blue" contexts. (10) demonstrates (see also Vlachos 2012):

(10)	#γειά,	γίνεται	τι?
	hi	is-happening	what
	intended:	"Hi, what's going	on/how's it going?"

What (10) clearly shows is that a *wh*-in situ question cannot initiate a discussion just "out of the blue".

Another (and perhaps, more interesting) fact which shows that wh-in situ is tied to the discourse is the obligatoriness of the conjunction marker ke ("and"). More in particular, as a first step of the argument, consider the wh-fronting question in (11):

(11)	#και,	τι	γίνεται?
	and	what	is-happening
	"(#And)	what's going on	how's it going?"

A *wh*-fronting question in an out-of-the-blue context strongly resists discourse anchoring, by definition. Under the presence of *ke*, the question becomes infelicitous. This means, in turn, that *ke* anchors the utterance it heads to the discourse. Within this part of the argument in place, next, let us turn to *wh*-in situ.

As Vlachos (2019) observes, *ke* is necessarily implicated in the structure of *wh*-in situ, and in some contexts (about which we have nothing more to contribute, at present), its overt realization is strongly preferred. An example of this is the dialogue in (12):

(12)	<i>Speaker A</i> : πήγα went-1SG 'I went shopping.'	γιa for	ψώνια shopping	
	<i>Speaker B</i> : *(και) and '*(And) you bo	αγόρασες bought-2SG ught what?'		τι? what

In (12b), the phonological realization of *ke* seems necessary to the extent that its null counterpart (which is what the parentheses stand for) render the sentence ungrammatical (and not just infelicitous; hence, the asterisk notation instead of a hash symbol).

To conclude the discussion in this section, we have argued that the discourse properties of wh-in situ are a reflex of the latter's lack of association with C, which renders wh-in situ infelicitous in contexts that do not assume some kind of anchoring with the immediate (extra-)linguistic environment.

### 4 Conclusion

The present short contribution makes a straightforward theoretical argument (based on empirical evidence already documented in the relevant literature): *wh*-in situ elements in Greek are not associated with the clausal left periphery. One effect of this lack of association concerns the discourse properties of *wh*-in situ, on the standard assumption that the C-system (partly) encodes the discourse properties of the clause (and partly, its propositional properties). In short, a *wh*-in situ question must be anchored to the discourse (in ways that its *wh*-fronting counterpart does not have to).

It goes without saying that this paper raises far more (interesting) questions than it answers. For example, some among them are: What is the syntax of *wh*-in situ (compared to that of *wh*-fronting)? How is the 'question' reading available in *wh*-in situ, if C is not involved in its encoding? How is the conjunction marker ke ("and") implicated in the *wh*-in situ structure? For further elaboration on these questions (among others), we cite the interested reader to Vlachos & Chiou (2020).

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