The Syntax-Information Component Interface: On the Properties of V-initial Orders in Greek¹

Axiotis Kechagias

University College London <u>axiotis@ling.ucl.ac.uk</u>

In this paper I argue that what regulates the (in-)felicity of the V-initial orders in MG has little to do with the oldness/novelty of referents of lexical items, or with possible restrictions on the syntax of discourse functions per se. Rather, I show that V-initial orders in MG fulfil independent requirements which run on the Syntax-IC Interface.

Key words: new and old information, focus, presentational mapping, cartography.

1. An Overview & the Literature

As is widely known, Modern Greek (MG) is a free word order language in the sense that a proposition such as /Ares bought a car/ can surface as

(1a)	o Aris aγorase aftokinito	(SVO)
	Ares bought car	
(1b)	o Aris aftokinito aγorase	(SOV)
(1c)	aftokinito o Aris aγorase	(OSV)
(1d)	aftokinito aγorase o Aris	(OVS)
(1e)	aγorase o Aris aftokinito	(VSO)
(1f)	aγorase aftokinito o Aris	(VOS)

Each word order, though, is usually indicative of a different *information structure* (IS), that is, a different partitioning of the linguistic message in terms of new vs. old (or ground) information, focal information etc. Nonetheless, there is a general consensus in the literature²that word order is a relatively weak factor in realizing IS as compared to the role that phonology plays: the informational properties of a syntactic object $[\alpha\beta\gamma]$ will vary depending on where stress is assigned. This is shown in (2):

(2a)	O ARIS	<u>ayorase</u>	<u>aftokinito</u>	(SVO)
	ARES	bought	car	
(2b)	o Aris	ayorase	AFTOKINITO	(SVO)
(2c)	o Aris	AGORASE	<u>aftokinito</u>	(SVO)

In this paper, building primarily on the properties of VSO and VOS, I will show why we should reintegrate the role that syntax plays in the realization of information packaging in MG. The paper in organized as follows: in the remainder of this section I present some well-received ideas regarding the IS properties of VSO and VOS. In part 2, I present some major shortcomings these ideas have, while in part 3, I put forward an alternative analysis and discuss some of its advantages. Finally in section 4, I conclude the major aspects of this piece of work.

¹ The current paper is part of a larger work in progress concerning the Syntax-Information Component Interface in Greek. I am indebted to my supervisor Ad Neeleman for the endless discussions, his advice and comments on earlier drafts.

² cf. Keller & Alexopoulou (2001), Haidou (2004) among others.

Let me start the discussion with VSO. Part of the argument in favour of VSO as being the canonical word order in MG is based on the observation that it can be used as an answer to all-new information seeking questions (cf. Philippaki-Warburton 1985, Tsimpli 1990 among others):

- (3a) Any news?
- (3b)✓afksisane i trapezes ta epitokia (√VSO) the banks the (interest) rates raised
- (4a) What's this noise?
- (4b) √gremizi o jitonas tin apoθiki tu (√VSO) is demolishing the neighbour his storage-room

Put in terms of focusing, the idea is that in these cases we are dealing with broad focus domains: the stress which is assigned to the syntactically most embedded element is able to *project*, that is, to percolate to higher nodes up and thus give rise to all-new information interpretations (cf. Selkirk 1995, Neeleman & Reinhart 1998, Reinhart 2006 among others).

The canonical word order in MG, though, displays a somewhat peculiar behaviour, in the sense that (at least) under a neutral stress pattern it seems it does less than the canonical order in English, for instance. In particular, while with a SVO order in English the focus domain can be the entire TP, the VP or the DP object, in Greek only the first option is possible. This asymmetry is shown below:

- (5a)What's this noise?
- (5b)✓ The neighbor is building a storage room (English ✓SVO)
- ✓ xtizi o jitonas mia apoθiki (Greek ✓VSO) (5c)is building the neighbour a storage-room
- What 's the neighbor doing? (6a)
- ✓ The neighbour is building a storage-room (6b) (English ✓SVO) # xtizi o jitonas mia apoθiki (Greek #VSO) (6c)
- What 's the neighbor building? (7a)
- ✓ The neighbor is building a storage-room (English ✓SVO) (7b)
- # xtizi o jitonas mia apoθiki (7c)(Greek #VSO)

For the time being, let me adopt a well-cited explanation, namely that groundinformation subjects in Greek need to evacuate the VP domain (i.e. they cannot any longer remain in situ at [SpecvP]. Indeed, if the subjects in (6c) and (7c) show up in a preverbal position the utterances become fully acceptable:

Let me come to VOS now. The relevant literature (Alexiadou 1999, 2006, Georgiafentis 2001, Philippaki-Warburton 2001, Georgiafentis & Sfakianaki 2004 among others) argues that VOS -under neutral information—involves a focused subject, while the rest of the material constitutes ground information. This is supposed to be supported by the fact that this order can hardly be uttered as a felicitous answer to an all-new information seeking question; in respect with this Haidou (2000) following a syntax-PF interface path argues that the object in VOS constitutes old information because main clausal stress on the subject cannot project at all. In a more technical fashion, all the above mentioned researchers make use of different versions of the idea of *prosodically-motivated movement* along the lines of Zubizarreta 1998: the object ends up in a position above the subject so that the main clausal stress is assigned to the syntactically most-embedded constituent, that is, the subject. What is really crucial here, though, is the assumption that the object as old information needs to evacuate the VP domain.

In what follows I will present some major shortcomings of the assumptions presented in this section, related to the information properties of VSO &VOS.

2. Shortcomings

Let me begin again with VSO. Recall from section 1 that according to the literature the infelicity of the VSO orders in (6c) and (7c) above is attributed to the cartographic assumption that subjects need to show up in a preverbal position when they convey old information, or the other way round, that only new information subjects can show up in a VSO fashion. However, is not the case: Consider for instance (9b) and (10b) where the subjects constitute new information, yet a VSO order is rather infelicitous:

- (9a) What's your neighbor doing?
- (9b) δen ksero...#xtizi o aδerfos tu pandos mia pisina (#VSO) *I don't know; is building his brother though a swimming pool*
- (10a) What happened with the lottery yesterday?
- (10b) #kerδisan i tixeri_nikites pola xrimata (#VSO) won the lucky winners much money

Reversely, the subjects in (11b) & (12b) actually convey old information, yet they can still show up postverbally in a VS(x) fashion:

- (11a) When did <u>Columbus</u> discover Amerika?
- (11b) ✓ TO 1492 anakalipse o Kolomvos tin Ameriki (✓AdvVSO)

 IN 1492 discovered Columbus America
- (11c) ✓ tin Ameriki, tin anakalipse <u>o Kolomvos</u> TO 1492 (✓OVS**Adv**)

 **America it-cl discovered Columbus IN 1492
- (12a) There were no kids to play with <u>Ares</u> and Nikos in the park, so....
- (12b) ✓ efaje <u>o Aris</u> ena paγoto ke fiγame (✓VSO) ate Ares an ice-cream, and we left

The situation with VOS is even more problematic: recall that according to the literature VOS is derived from VSO when for discourse reasons nuclear sentential stress needs to be assigned on the subject, and that the object is invariably ground information. Let me first touch the former point. Consider the utterances in (13):

(13a) petakse tin bala o pextis DINATA (VOSAdv) threw the ball the player with force

- (13b) e\u00e3ose to tilefono tu o Aris STI MARIA (VOS**PP**)

 gave his telephone number Ares to Maria
- (13c) ipie tin votka o Aris NISTIKOS (VOS**AP**)

 drunk the vodka Ares on a empty stomach

What is interesting with the cases above—and irrespective of information structures—is that in neither case the main sentential stress is carried by the postverbal subject, yet a VOS order is still an absolutely grammatical possibility.

As far the second point is concerned, that is, the assumption that the object in VOS constitutes ground information and that VOS cannot be an acceptable answer to an all-new information seeking question, consider the following cases:

- (14a) Any news?
- (14b) ✓afksisan ta epitokia i trapezes (✓VOS)

 raised the interest rates the banks
- (15a) What's this noice?
- (15b) √xtizi mia apoθiki o jitonas (√VOS) is building a storage room the neighbour
- (16a) How are we going to play music in the party?
- (16b) √θa feri to stereofoniko tu o Aris
 will bring his stereo system Ares

 (✓VOS)

All the (b) utterances above involve a VOS order which is perceived as a legitimate possibility—though a marked one as compared to VSO—for answering to the all-new information seeking questions in (a). Crucially, there is no link to previous discourse that could establish the alleged ground status of the object DPs. What practically this means is that while we have no problem in considering the subject as new information, we see no particular reason for taking the DP-object as given material; after all, any old reading of the object is only a by-product of the fact that main prominence is "unnaturally" assigned to the subject. That the object is not part of the ground partition is further supported by the following facts:

- (I) VOS can involve non-specific indefinite objects which typically convey new/non-anchored information. This is the case in (15) above.
- (II)The objects resist *clitic doubling*, that is, association with a clitic, a configuration which typically marks oldness:
- (17) # ta afksisan ta epitokia i trapezes (#clVOS)

 them-cl raised the interest rates the banks
- (III) In the same spirit, the object cannot occur dislocated in a CLLDed fashion, something which is absolutely possible with ground material in Greek:
- (18) # ta epitokia **ta** afksisan i trapezes (#OclVS)

 the interest rates them-cl raised the banks

(IV) VOS is a rather infelicitous option when the DP object is indisputably ground information. Consider for instance the cases from (19) to (21) below:

- (19a) solved the problem first? who (19b)to provlima (#VOAPS) #elise protos O ARIS solved the problem first ARES (20a)ARES kissed Maria.... (20b)Kanis laθos...#filise ti Maria O NIKOS! (#clVOS) You are wrong...kissed the Maria NICK
- (21a) The problems were really easy....
 (21b) #...elisa to proto akoma ki EGO... (#VOS)
 ...solved the first one even I

What differentiates the three cases is that in (19b) the postverbal subject is meant as a new information focus, while in (20b) as a corrective/contrastive one and in (21b) as a scalar focus. What is crucial though is that in all three cases, despite the fact that the object is part of the ground partition, a VOS is a rather infelicitous option.

To summarize the discussion, in this section I showed that well-received ideas about the informational properties of VSO and VOS are rather problematic. In particular, as far as VSO is concerned, I illustrated that while the subject is expected to convey new information this is not always the case, in the sense that the subject can convey even old information in some cases and that in other cases even new information subjects cannot occur postverbally. As for VOS, I showed that not only is the object able to be interpreted as new information, but actually when it is indisputably old information VOS constitutes an unnatural order. In what follows I will try to give an answer to this puzzling behaviour, by putting forward an alternative account about the felicity conditions of VSO and VOS.

3. An explanation & some implications

In this section I will show that what regulates the (in-)felicity of V-initial orders in MG has little to do with the oldness/novelty of referents of lexical items or with possible restrictions on the syntax of discourse functions such as Topics and Foci per se. Rather—building primarily on the orders under consideration—I will claim that word order in MG is by and large controlled by independent, interface requirements which run on the Syntax-IC Interface.

To begin with, I propose that both VSO/VOS are structurally preserved in MG for formally expressing what the information structure literature calls *event-reporting* or/and *presentational* mapping (henceforth E-R & PR respectively; cf. Lambrecht 1994 among others). The mapping is E-R/PR in the sense that in such cases the communicative function of an utterance is not to predicate a property of a given entity but, rather, either to introduce an entity into a discourse or to announce an event in which some entities are merely necessary participants. Such constructions sharply contrast with articulations whose communicative task is actually to predicate a property about a given entity—such as *topic-comment* constructions—and constructions which serve to identify a referent as the missing argument in an open propotition, that is *focus-background* constructions.

This E-R/PR mapping is meant as a universal I/S block. Nonetheless, there may be differences on how different languages realize this mapping. In English for instance the difference between an E-R/PR and a topic-comment articulation is not unambiguously marked via word order. Thus an [SVO] order can either constitute an E-R/PR construction (23b) or a topic-comment one (22b):

- (22a) What did the children do next?
- (22b) ✓ The children went to SCHOOL (✓SVO)
- (23a) What happened?
- (23b) ✓ The CHILDREN went to SCHOOL (✓SVO)

In (22b) the statement pragmatically presupposes that "the children in question are a matter of standing concern and asserts about these children that they went to school and that we might say that the predicate *went to school* expresses a property attributed to the entity *the children*" (Lambrecht 1994: 121). In contrast, the utterance in (23b) "is not construed as conveying information about the children. Rather its function is to inform the addressee of an event involving the children as participants. The pragmatic presupposition required by the reply is merely that something happened, and the focus of the assertion covers the entire proposition" (Lambrecht 1994: 124).

On the other hand, there are languages where this E-R/PR mapping is marked in the syntax; crucially, in some languages this is typically achieved via V-S inversion:

(24a)	What's the matter?	(25a)	What's this noice?	
(24b)	Mi fa male IL COLO	(25b)	Squilla il TELEFONO	(Italian VS)
	My NECK hurts		The PHONE's ringing	

MG is among these languages. The only difference is that actually Greek allows for inverted orders with all (at least) eventive predicates. This is shown below where all the cases typically realize an E-R/PR mapping (cf. also Alexiadou & Anagnostopoulou 1998)

(26)	efije o Aris left Ares	(VS)	unaccusatives
(27)	epekse o Aris played Ares	(VS)	unergatives
(28)	anakalipse o Kolomvos tin Ameriki discovered Columbus America	(VSO)	transitives
(29)	anakalipse tin Ameriki o Kolomvos	(VOS)	<<

Having put forward the core of the idea let me discuss some straightforward advantages this analysis has. First of all, the fact that VSO/VOS typically—but not necessarily— convey all-new information is not any longer a mere descriptive generalization; rather, that such orders are associated with new information is due to the fact that they are preserved in the language for fulfilling this E-R/PR mapping (triggered by the context), where an event is presented and in which some individuals are necessarily involved:

(30a)	Any news?	
(30b)	√afksisane i trapezes ta epitokia	(✓VSO)
	raised the banks the interest rates	
(30c)	√afksisane ta epitokia i trapezes	(√VOS)
(31a)	What's this noice?	
(31b)	√gremizi o jitonas tin apoθiki tu	(✓VSO)
	is demolishing the neighbour his storage-room	
(31c)	√gremizi tin apoθiki tu o gitonas	(✓VOS)

Thus, such orders typically convey all-new information is only epiphenomenal for us, in the sense that it is rather natural for new information to be inserted in the discourse in a presentational way. Nonetheless, even old information can show up in a VSO/VOS fashion without creating any problems, provided that the discourse allows for an E-R/PR mapping. This is shown in (32) & (33) below where the subject is old information, yet able show up post-verbally, given that contextually an E-R/PP mapping is allowed:

(32a) (32b) (32c)	Today there were no kids to play with Ares in the park, so ✓ efaje o Aris ena paγoto ke fiγame ate Ares an ice-cream, and we left ✓ efaje ena pagoto o Aris ke fiγame	(√VSO) (√VOS)
(33a) (33b)	Why are <u>Ares</u> ' parents that happy today? ✓ pire o <u>Aris</u> to ptixio tuti alo na ine	(√VSO)
(33c)	got Ares his degreewhat else ✓ pire to ptixio tu o Aristi alo na ine	(√VOS)

The infelicity of V-initial orders in some contexts does not actually have to do with the oldness/ novelty of, say, the subject, but with a mismatch between the syntax and the Information Component:

(34a)	What is <u>your neighbor</u> doing?	
(34b)	# xtizi <u>o jitonas mu</u> mia apoθiki	(#VSO)
	Is building my neighbour a storage room	
(34c)	#Sen kseroxtizi o aserfos tu pandos mia pisina	(#VSO)
	I don't know; is building his brother though a swimming-pool	

In both cases a VSO does not constitute a felicitous order. This cannot actually be due to the oldness of the subject per se, since the subject constitutes old information in (34b), but new information in (34c). Rather, the infelicity is due to the fact that the discourse (i.e. the preceding question) does not ask for an E-R/PR mapping, but for a mapping where something should be predicated about a given entity. Indeed, a SVO-order would be an absolutely legitimate option in both (34b) and (34c) above:

(35a)	What is your neighbor doing?	
(35b)	√o jitonas mu xtizi mia apoθiki	(✓SVO)
	My neighbour is building a storage room	
(35c)	√ \delta en ksero; o aderfos tu pandos xtizi mia pisina,	(✓SVO)
	I don't know; his brother though is building a swimming-pool	

Before I continue with some more advantages, let me stay for a while at the VSO/VOS interchange. Recall that according to the literature the VOS order involves an object which is part of the ground partition while the subject is in focus. However, as I have shown in section 2, this is not typically the case, since a VOS order can answer an-all-new information seeking question, as much as a VSO order can (see also 32-33):

(36a)	What's this noice?	((NGO)
(36b)	✓ gremizi o jitonas tin apoθiki tu is demolishing the neighbour his storage-room	(√VSO)
(36c)	√gremizi tin apoθiki tu o gitonas	(√VOS)
(37a)	How are we gonna play music in the party?	
(37b)	√θa feri o Aris ena stereofoniko will bring Ares a stereo system	(✓VSO)
(37c)	√θa feri ena stereofoniko o Aris	(✓VOS)

However, the two orders are not informationally identical: VOS is a marked option when compared to the more "natural" VSO order. I assume that this informational markedness³ is due to the fact that in cases such as those above VOS exemplifies what has been described as a *superman construction* (see Neeleman & Szendroi 2004): a focus enclave occurs inside a broader focus; in other words, in VOS there is an articulated focus domain, which is absent with VSO. This is show below in (38):

Before I finish, let me highlight—rather briefly—how this analysis undermines certain cartographic assumptions. To begin with, consider the following cases:

(39b)	oxi #ipie <u>o Nikos</u> TO KRASI! no drank Nick THE WINE	(#VSO)
(40a) (40b)	NICK drank <u>the wine</u> . oxi #ipie <u>to krasi</u> O ARIS! no drank the wine ARES!	(#VO S)
(41a)	Ares drank MANY different drinks.	

(41b) oxi...#ipie o Aris mono KRASI! (#VSO)
no...drank Ares only WINE!

(42a) EVERYBODY drank wine.

Nick drank THE WHISKEY.

(42b) oxi...#ipie <u>krasi</u> mono O ARIS! (#VO**S**)

no...drank wine only ARES!

Following a cartographic approach to syntax one could argue that the infelicity of all the (b) utterances above may be either due to that contrastive/exhaustive focus is not

_

(39a)

³ For a revised syntactic analysis of VOS and an extensive literature see Kechagias 2008.

licensed in-situ postverbally in MG⁴, or due to that old information conveying constituents need to appear pre-verbally in MG. Neither assumption is true. Actually this infelicity has little to do with such cartographic restrictions per se; rather, and in line with what we have already showed, it is by and large related to a syntax-IC interface mismatch. The idea is that in all the cases above the context calls for a non E-R/PR mapping, that is, for a non V-initial construction. Indeed, in the absence of an E-R/PR mapping, the utterances in (b) become fully acceptable: (43) & (44) are continuations to the contexts in (39a) & (40a):

In (43a) and (44a) a contrastively focused constituent can remain postverbally as long as something else occurs pre-verbally (i.e. SVO/ OVS) so that we get a Topic-Comment mapping, since there is nothing that bans the existence of a narrow focus within a comment. Alternatively, one can move the narrowly focused constituent so that we get a Focus-Background mapping, as it happens in (43b) & (44b) (i.e. OVS/SVO). In either case, the (contextually) non-desirable E-R/PR mapping is blocked since there is no V-initial order any longer. Finally, such a way of doing things can very smoothly account for asymmetries such as the one illustrated below in (45) and (46) without taking into account any cartographic restriction related to the interpretation of the subject and its position in the clause:

For us the discourse infelicity of VSO in (45a) has nothing to do with the well-cited assumption that ground information subjects must evacuate the vP (or VP) domain, that is, they must appear pre-verbally. Indeed, both in (46b) and (46c) the subject is old information, appears postverbally, and yet the utterances are felicitous. What makes (46a) and (46b) felicitous is the fact that a preverbal element (a topicalized indirect object in the former case, and a focused direct object in the latter one) ensures that an E-R/PR reading –that a verb initial order would give rise to—is blocked. In sharp contrast, there is no preverbal element to block this mapping in (45b) and as a result an E-R/PR reading arises in a context in which this is not what we want.

⁴For focusing in MG see Tsimpli 1995, Alexopoulou 1999, Haidou 2004 & Gryllia 2008.

4. Conclusions

In this piece of work I argued that what regulates the (in-)felicity of V-initial orders in MG has little to do with the oldness/novelty of referents of lexical items or with possible restrictions on the syntax of discourse functions such as Topics and Foci per se. Rather, I claimed that V-initial orders in MG fulfil independent, interface requirements which run on the Syntax-IC Interface. Finally, I showed how such an analysis undermines certain well-cited cartographic assumptions found in the relevant literature.

5. References

- Alexopoulou Th. (1999). *The Syntax of Discourse Functions in Greek: a non-Configurational approach*. Ph.D. Thesis, University of Edinburgh.
- Alexiadou A. (1999). "On the Properties of some Greek word order patterns". *In Studies in Greek Syntax*. (eds) Alexiadou, A., Horrocks, G. & Stavrou, M. Kluwer Academic Publishers.
- Alexiadou A. (2006). "On the properties of VSO and VOS orders in Greek and Italian: a study on the syntax-information structure interface. In *Proceedings of ISCA Tutorial and Research Workshop on Experimental Linguistics*, A. Botinis (ed.) University of Athens.
- Alexiadou A. & E. Anagnostopoulou (1998). "Parameterizing AGR: Word Order, V-movement & EPP-checking". *Natural Language & Linguistic Theory 16*, 491-539.
- Georgiafentis M. (2001). "On the properties of the VOS order in Greek". Reading Working Papers in Linguistics 5.
- Georgiafentis M. & A. Sfakianaki (2004). "Syntax Interacts with Prosody: The VOS order in Greek". *Lingua* 114, 935-961.
- Gryllia S. (2008). *On the nature of preverbal Focus in Greek*. Netherlands Graduate School of Linguistics / Landelijke LOT.
- Haidou K. (2004). "On the Syntax-Pragmatics Interface: Left, Medial & Right Peripheral Focus & Topic. in Greek. *Proceedings of the Dislocated Elements Workshop*, ZAS Berlin, ZASPiL 35:1, 193-241.
- Kechagias A. (2008) "VOS in Modern Greek: Syntax Revisited". In *UCL Working Papers in Linguistics* 20, 15-43.
- Keller F. & D. Alexopoulou (2001). "Phonology Competes with Syntax: Experimental evidence for the interaction of Word Order & Accent Placement in the Realization of Information Structure". *Cognition* 79. 301-372
- Lambrecht K. (1994). Information Structure & Sentence Form. CUP
- Neeleman A. & T. Reinhart (1998). "Scrambling and the PF Interface". In W.Geuder and M.Butt (eds.), *Projecting from the Lexicon*. Stanford, California: CSLI Publications.
- Neeleman A. & K. Szendroi (2004). "Superman Sentences". Linguistic Inquiry 35:149-159.
- Neeleman A. & H. van de Koot (2008). "Dutch Scrambling & the Nature of Discourse Templates". *The Journal of Comparative Germanic Linguistics* 11:2, 137-189
- Philippaki-Warburton I. (1985). Word Order in Modern Greek. *Transactions of the Philological Society* 83. 113-143
- Philippaki-Warburton I. (2001). "Glossologiki theoria ke sintaksi tis Ellinikis: Pikilia sti sira ton oron ke I erminia tis". In *Greek linguistics* '99. *Proceedings of the 4th International Conference on Greek Linguistic*. University Studio Press, Thessaloniki, 217-231
- Reinhart T. (2006). *Interface Strategies: Optimal and Costly Computations*. Linguistic Inquiry Monographies, 45. MIT Press.
- Selkirk E. (1995). "Sentence Prosody: Intonation, Stress, and Phrasing," in J.A. Goldsmith (ed.) *The Handbook of Phonological Theory*, Cambridge, MA: Basil Blackwell, 550-569.
- Tsimlpli I-M. (1990). "The Clause Structure and Word Order in Modern Greek". *UCL Working Papers in Linguistics* 2: 226-255.
- Tsimpli I-M. (1995). "Focusing in Modern Greek". In K. Kiss (ed.) *Discourse Configurational Languages*. 176-206
- Zubizarreta M-L. (1998). Prosody, Focus and Word Order. MIT Press.