

Differentiating Interfaces: L2 Performance in Syntax-Semantics and Syntax-Discourse Phenomena

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Introduction

This paper aims to distinguish between the syntax-semantics and the syntax-discourse interface in terms of the different phenomena relevant to each and the nature of the developmental patterns they display. Furthermore, the distinction between the two interfaces is based on the assumption that the syntax-discourse interface is a ‘higher’ level of language use, integrating properties of language and pragmatic processing, whereas syntax-semantics involve formal properties of the language system alone. The above differences are further used to evaluate L2 performance in the relevant interface phenomena. It is argued that problems in syntax-discourse phenomena in the production data of ‘advanced’ Russian learners of Greek are due to L1-L2 interference at this ‘higher’ level of language use. Syntax-semantics phenomena, on the other hand, are predicted to cause fewer problems at advanced stages of L2 development in the same group of learners.

1. Interface issues in L2 acquisition

Recent accounts of ‘advanced’ L2 development have concentrated on the vulnerability of the syntax-discourse interface (Belletti et al. to appear, Sorace 2005) and the syntax-morphology interface (Haznedar & Schwartz 1998, Lardiere 2000, Prévost & White 2000, Goad & White 2004, a.o.). In the same studies, interface vulnerability is contrasted with the target-like development of L2 syntax.

However, according to L2 theories such as the Failed Functional Features hypothesis (Hawkins & Chan 1997), or the Interpretability hypothesis (Tsimpli 1997, 2005), L2 grammars deviate from the target in the domain of formal uninterpretable features. Moreover, interpretable features of the semantic interface (LF), e.g. Focus or Q, are predicted to be unproblematic for L2 acquisition. In this set of L2 theories, then, it is the formal set of uninterpretable features that is vulnerable in L2 acquisition, rather than the syntax-semantics interface.

The data from the present study are not relevant to uninterpretable features in L2 grammars; hence, the above L2 approaches cannot be evaluated in this respect. However, the data discussed here are relevant to interface phenomena, both of the syntax-discourse and the syntax-semantics level. Neither set of the L2 approaches mentioned above take into account possible differences between interfaces. We argue that the apparently contrasting views regarding interface

vulnerability in L2 acquisition put forward by the above L2 approaches can be reconciled if interface phenomena are examined in more detail.

2. Interface phenomena

2.1. Syntax-Discourse

Overt subject pronouns in typical null subject languages are considered a ‘marked’ option, regulated by a number of discourse factors. The Italian and the Greek examples in (1a&b) illustrate cases of acceptable use of overt subject pronouns; (1a) involves shifting the discourse topic from the matrix subject to the matrix object, whereas in (1b) the subject pronoun is used as a contrastive topic:

- (1) a. La signora_i saluta la ragazza_j, mentre lei_{j/?i} attraversa la strada.
the lady greets the girl, while she crosses the street
“The lady_i is greeting the girl_j while she_{i/j} is crossing the street.”
b. Xthes esi sinandises ti Maria (oxi ego).
yesterday you met-2s the Maria (not I)
“Yesterday you met Maria (not I).”

However, native Italian or Greek judgments on the use of the overt subject pronoun in sentences such as (1a&b) are not categorical in that use of the subject pronoun without a ‘topic-shift’ or a contrastive reading is considered infelicitous (but not ungrammatical).

In non-null subject languages, like English, subject pronouns need not be discourse-marked in the sense of the Italian and Greek examples above. Russian presents an interesting combination of properties from null and non-null subject languages. Specifically, Russian has both null and overt subject pronouns; in this respect it is similar to Italian and Greek. However, overt subject pronouns in Russian need not be discourse-marked as is the case with typical null subject languages. Instead, they resemble English subject pronouns and as such, the use of an overt subject pronoun is not ‘marked’ compared to a null subject (Franks 1995, Avrutin & Rohrbacher 1997, Gordishevsky & Avrutin 2003):

- (2) Vchera *(ja) xodil v shkolu. (ex. from Gordishevsky & Avrutin 2003)
yesterday I went to school
“Yesterday, I went to school.”

Thus, it has been argued that Russian is not a null subject language in the pro-drop sense. Null arguments, subjects and objects, are allowed in similar discourse contexts (Gordishevsky & Schaeffer 2002).

2.2. Syntax-Semantics

Greek allows object-fronting as instantiated in Focus and Topicalisation structures (Alexiadou 1999, Alexopoulou 2000, Anagnostopoulou 1994, Tsimpli 1995, 1998, a.o.). Topicalisation of definite DP objects requires the presence of an object clitic, referred to as CLLD (Clitic-Left Dislocation):

- (3) a. TON PETRO_i sinandise *e*_i i adhel_ifi mu.
 the-acc Petro met-3s the-nom sister my
 “It was Petro that my sister met.”
 b. Ton Petro_i ton_i-sinandise i adhel_ifi mu.
 the-acc Petro him-met-3s the-nom sister my
 “Petro, my sister met him.”

It has been argued (see refs. above) that focusing differs from CLLD in that the former involves an operator-variable dependency, a unique (identificational) focus operator in the left-periphery, it is subject to island constraints and it requires verb-raising to the left periphery (cf. Kiss 1998). On the other hand, CLLD is not subject to islands, lacks an operator-variable dependency, allows for multiple dislocated XPs, and does not require verb-raising.

Although focusing and CLLD involve syntactic operations (movement and binding for focusing and agreement between the clitic and the dislocated DP for CLLD), focus is also LF-interpretable due to its operator status, whereas CLLD is not.

2.3. Copula inversion as focusing

Predicate fronting in Greek copula structures can be analyzed as an instance of focusing (e.g. (4a)) or as copula inversion (e.g. (4b)):

- (4) a. KOKINO ine afto to vivlio.
 red is this the book
 “This book is RED.”
 b. O proedros ine o Janis.
 The president is the Janis
 “The president is Janis.”

If (4a) is correctly analysed as an instance of focusing, the fronted predicate adjective is in a left-peripheral position associated with focusing in general (Rizzi 1998). In (4b), on the other hand, the predicate may be fronted to the EPP (subject) position instead (cf. Moro 1997). Some evidence for the distinction between the two positions comes from the observation that ‘subjects’ in Greek are necessarily DPs, i.e. nominalised XPs [D XP], (cf. Roussou & Tsimpli; in press). Thus, the fronted predicate in (4a) cannot appear in the EPP position, whereas the DP predicate in (4b) could be either focused or inverted to the subject position.

Unlike Greek, Russian lacks focusing as a distinct syntactic option. Fronting in Russian has been analysed as inversion (i.e. raising to the subject (EPP) position in IP), or as dislocation (i.e. adjunction to IP or to the left-periphery without verb-raising) (cf. Baylin 1999, 2003). Phonological focal stress on the fronted material is optional in either case. (5a) illustrates inversion and (5b) dislocation in Russian (examples from Baylin (2002)):

- (5) a. Ètu knigu podaril Ivan studentam.
this book-acc gave Ivan-nom students-dat
b. Ètu knigu Ivan podaril studentam.
this book-acc Ivan-nom gave students-dat
“This book Ivan gave to the students.”

On the basis of the above similarities and differences between Greek and Russian in the domain of overt subject pronouns and fronting structures, we can now formulate our research questions with respect to the interface domains that each of these phenomena is related to.

3. Research questions

Assuming that the syntax-semantics interface is relatively unproblematic for L2 grammars due to the interpretability of the features involved, focusing should be (optionally) used by L2 learners in appropriate contexts and, in these cases, it should exhibit verb raising. Furthermore, we expect that if L2 learners have acquired focusing, they should distinguish it from CLLD with respect to verb-raising. More precisely, given that CLLD does not require verb-raising, L2 learners are expected to show fewer contexts of verb-adjacency with the fronted element in CLLD than in focus structures¹.

With respect to the vulnerability of the syntax-discourse compared to the syntax-semantics interface, and in particular the use of overt subject pronouns, the prediction is that Russian learners of Greek will overuse overt subject pronouns. This is expected due to the interference of discourse factors which regulate the distribution of overt and null pronouns in L1 Russian which differ from the discourse factors responsible for the use of overt subject pronouns in the Greek L2.

4. The Russian L1 / Greek L2 data

4.1. Methodology

¹ Note that we cannot predict complete lack of adjacency between the verb and the fronted object in CLLD structures due to the possible subject drop in Greek. Thus, OV sentences involving CLLD are possible. Crucially, however, this instance of adjacency is not the result of verb-raising.

The L2 data is drawn from 10-20 minute-long oral interviews, tape-recorded and transcribed². The interviews were divided in four stages: i) warming-up (and biographical details relevant to the subject's exposure to and use of the L2), ii) story-description of eight sets of pictures, iii) two instruction-giving tasks and iv) general discussion on every-day life topics.

4.2. Participants

The participants are twenty-seven adult Russian learners of Greek who knew no Greek before arrival to the country and acquired the L2 without formal instruction.

Table 1. Information on the participants

Yrs	Length of stay			Age at arrival			Age at the time of test		
	Mean	SD	min-max	Mean	SD	min-max	Mean	SD	min-max
Gr 1 n=10	3.4	.59	1-4.5	33.4	9.24	19-47.5	36.9	9.24	22-50
Gr 2 n=9	7.1	1.05	6-8	35.4	9.3	20-49	42.8	8.9	28-55
Gr 3 n=8	10.5	1.2	9-13	35.7	3.7	30-42	46.2	4.6	40-55
Total	6.7	3.06	1-13	34.8	7.8	19-49	41.6	8.7	22-55

The grouping of participants in the three groups presented in Table 1 is partly based on the analysis of data from twenty of the participants of the present study. Specifically, ten subjects with 1-4 years of residence and ten with more than 10 years showed a developmental pattern in two types of D elements, the definite article and the 3rd person clitics, in the sense that both categories were particularly problematic for these learners, although development was clearly attested. Clitic omission was significantly higher (51%) than article omission in the data from the first group ($\chi^2_{(1,1070)}=10.57, p <.01$) and was also attested at a relatively high rate (26.4%) even in the more advanced subjects ($\chi^2_{(1,1283)}=25.67, p <.01$.)

² The data presented here is a small subset of a large corpus of data from L2 learners of Greek that has been collected and analysed as part of a research project funded by the University of Patras (Dimitrakopoulou, et al 2004; Tsimpli et al, to appear).

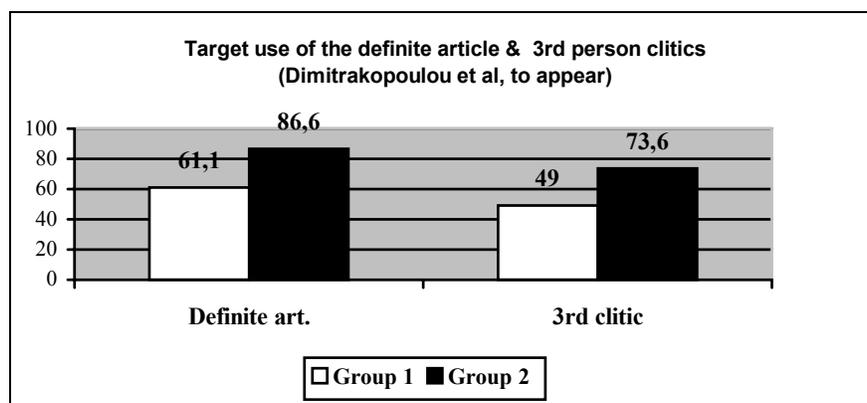


Figure 1: Target use of D elements in the two L2 groups

4.3. L2 performance on subject pronouns

Table 2 presents the frequency of overt vs. null subject pronouns by the participants of this study. The clear preference for null subjects indicates that these learners do not transfer the L1 overt subject pronoun option, which, as argued above, is unmarked in Russian.

Table 2. Distribution of overt and null subject pronouns

	Overt	Null
Group 1	146 8.7%	1527
Group 2	209 12%	1519
Group 3	119 9%	1172
Total	474 11%	4218

In order to examine overuse of overt subject pronouns in the L2 data, we distinguish between use of the 3rd person pronoun *aftos* ('he') from 1st/2nd person subject pronouns. The reason is that the 3rd person pronoun is identical in form with the demonstrative in Greek, hence its use is ambiguous between the deictic and the pronominal reading. Figure 2 presents the rate of non-native use of overt subject pronoun, drawing a distinction between 1st/2nd and 3rd person pronouns:

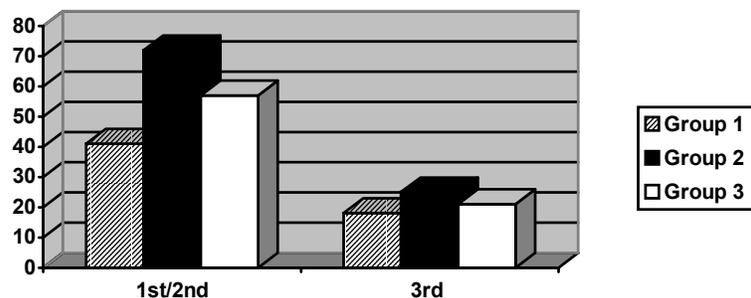


Figure 2: Non-native uses of 1st/2nd vs. 3rd person overt subject pronouns

Figure 2 shows no developmental pattern in the overuse of subject pronouns. In other words, there seems to be no effect of length of stay on this aspect of L2 performance. Moreover, it is the first group that overuses the 1st/2nd person pronoun significantly less than group 2 ($\chi^2_{(1,149)} = 117.73, p = .001$). 1st/2nd overt subject pronouns show more non-native uses than 3rd person pronoun. This could be due to the fact that Russian distinguishes between the demonstrative and the personal pronoun, unlike Greek.

A within-group comparison between 1st/2nd vs 3rd person pronouns reveals significant differences in all groups of learners (Group 1: $\chi^2_{(1,145)} = 7.46, p = .006$; Group 2: $\chi^2_{(1,208)} = 45.24, p = .000$; Group 3: $\chi^2_{(1,134)} = 18.66, p = .000$).

4.4. L2 performance on object fronting

Figure 3 presents the frequency of fronted complements in main verb and copula sentences in the three groups.

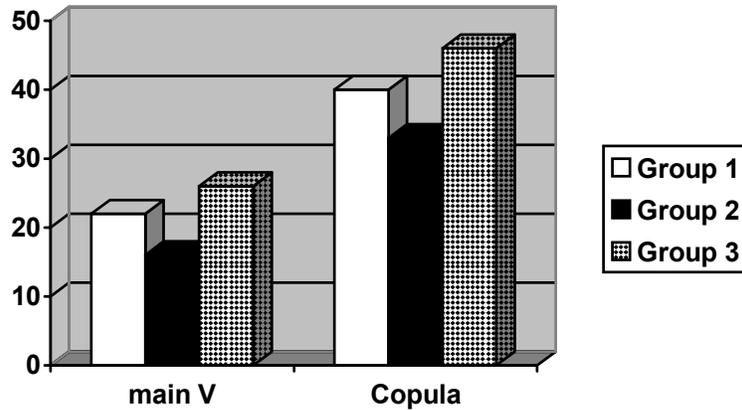


Figure 3: Distribution of fronted (focus and topic) complements in copula structures vs objects in main V sentences.

Complements in copula structures are preferred significantly more than objects (whether these are focalized or topicalized) by all groups (Group 1: $\chi^2_{(1,668)} = 21.72, p = .000$; Group 2: $\chi^2_{(1,779)} = 28.23, p = .000$; Group 3: $\chi^2_{(1,587)} = 20.48, p = .000$). Between groups, the second group of speakers appears to have a lower preference for fronting of objects (Group 1 vs 2: $\chi^2_{(1,1043)} = 5.97, p = .015$; Group 2 vs 3: $\chi^2_{(1,969)} = 15.70, p = .000$) or complements (Group 2 vs 3: $\chi^2_{(1,397)} = 6.93, p = .008$).

Recall that fronting is optional in both copula and non-copula sentences. The difference between them shown in the above Figure could be due to the 'light' status of the copula compared to main verbs. In other words, the preference for fronted complements in copula sentences is related to the fact that the verb is not a possible candidate for focusing or topicalisation in copula structures, hence the likelihood for complement fronting increases.

Turning to the two syntactic properties associated with focusing and Topicalisation/CLLD in our data, namely verb-raising in focus and clitic use in CLLD structures, we observe that the former is as expected whereas the latter, clitic use, is non-target in most cases:

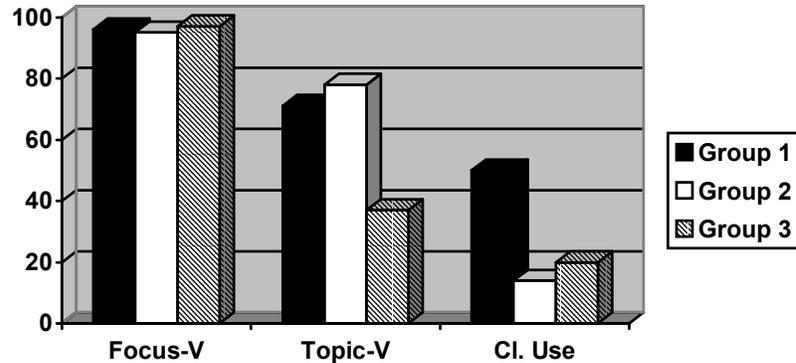


Figure 4: Verb-adjacency in Focus (obligatory) vs Topic (optional) structures, and Clitic Use in CLLD

All groups of learners show obligatory V-raising in focusing but not in topicalisation, as expected. Significant differences in verb raising between the two fronting structures are found across groups (Group 1: $\chi^2_{(1,77)} = 10.47, p = .001$; Group 2: $\chi^2_{(1,84)} = 5.62, p = .018$; Group 3: $\chi^2_{(1,119)} = 53.76, p = .000$). Between-group comparisons did not reveal any significant differences in V-raising when the object was focalized. In contrast, the third group differs significantly from the other two groups in the case of topicalisation (Groups 1 and 3: $\chi^2_{(1,47)} = 5.59, p = .018$; Groups 2 and 3: $\chi^2_{(1,49)} = 8.56, p = .003$).

Note that the high number of verb-adjacent topicalised elements shown in Figure 4 cannot be due to L1 transfer; dislocation in Russian is of XP-S-V order. Instead, this result is indirectly related to the high number of null subjects in the Greek L2 (cf. Table 2 above).

Clitics are problematic for all groups of learners (in other contexts as well; Tsimpli 2003, 2005, Dimitrakopoulou et al 2003). A comparison between non-target performance with respect to obligatory verb-raising in focusing and clitic use in CLLD, significant differences were found. This is due to the fact that verb-raising was target-like in contrast to clitic use (Group 1: $\chi^2_{(1,70)} = 21.97, p = .000$; Group 2: $\chi^2_{(1,76)} = 49.18, p = .000$; Group 3: $\chi^2_{(1,114)} = 88.42, p = .000$).

Finally, clitic omission in the L2 Greek of Slavic speakers has been shown to characterize all stages of L2 development (Tsimpli 2004, Dimitrakopoulou et al. to appear). This has been argued to stem from the uninterpretable status of (3rd person) object clitics in Greek together with the null object option that Slavic languages have for objects with specific reference. However, clitic omission has been found to occur at different rates in different contexts depending on the 'referential' vs 'resumptive' use of the clitic (Tsimpli 2004). Resumptive uses of object clitics refer to the clitic in contexts of clitic-doubling and CLLD, where a DP argument co-indexed with the clitic also appears in the

same sentence. Referential uses are those where no co-indexed argument is present. The data in Figure 5 illustrate the distribution of clitic omission in a set of L2 data from a different group of ‘advanced’ Slavic learners of Greek (Tsimpli 2004):

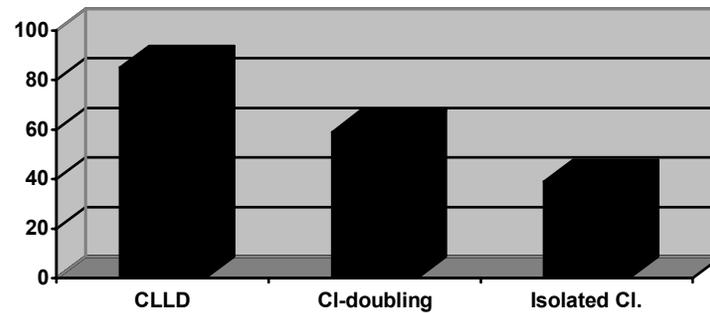


Figure 5: Clitic omission in CLLD, CI-doubling and ‘referential’ contexts

As shown by Figure 5, clitic omission in referential contexts is much lower than in both of the resumptive contexts (CLLD / Clitic object: $\chi^2_{(326)} = 24,789$, $p = .000$, CI-D / Clitic object: $\chi^2_{(353)} = 7,866$, $p = .005$, CLLD / CI-D: $\chi^2_{(81)} = 5,551$, $p = .018$)³. These differences show that clitic use in referential contexts is not a sufficient condition for clitic use in resumptive contexts; instead, properties of information structure and interpretability seem to affect target-like use of clitics.

5. Conclusions

The L2 data presented in this paper allows us to compare structures relevant to the syntax-semantics interface, namely focusing, with syntax-discourse phenomena, namely (over)use of overt subject pronouns in L2 Greek. It appears that neither focusing nor use of overt subject pronouns show a developmental trend in these data. However, focusing appears to be used target-like even by learners of Group 1, whereas overuse of subject pronouns is attested in all groups.

In addition, it was found that 1st and 2nd subject pronouns are more prone to overuse than 3rd person pronouns due to L1/L2 lexical differences in the personal and the demonstrative form of the third person pronoun. With respect to CLLD, the data shows that it is distinguished from focusing even by the first

³ The difference between clitic omission in CLLD and clitic-doubling is also found to be significant. Tsimpli (2004), following Agouraki (1994), argues that this is related to the verb-focusing effect that clitic-doubling has. No such effect is found in CLLD structures.

group of learners with respect to verb-raising. However, CLLD performance is not target-like with respect to clitic use due to the problematic status of the clitic in L2 Greek, independently shown in previous studies.

These results confirm that there are important developmental differences between interfaces, and are a step towards a clearer understanding of the factors that make some interfaces problematic in L2 acquisition.

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