Topicality and Clitic Doubling in L2 Bulgarian: A Test Case for the Interface Hypothesis

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1. L2 optionality at the external interfaces and the Interface Hypothesis

Recent studies on end-state grammars (Belletti, Bennati & Sorace, 2007; Tsimpli & Sorace, 2006; Sorace and Filiaci, 2006; Lozano, 2006; Valenzuela, 2006; Sorace, 2005; Tsimpli, Sorace, Heycock & Filiaci, 2004; Hopp 2004) reveal vulnerability at the syntax-discourse interface where L1 interference is active even at advanced levels of L2 attainment. Many of those studies reveal the presence of a protracted divergence between the L2 end-state and adult native grammars. This is due not to the lack of knowledge of the syntactic representations which underlie particular structures, but of their realization as triggered in the interplay with the specific discourse requirements.

The hypothesis that narrow syntactic properties are fully acquired at the stage of ultimate attainment whereas interface properties which involve both the syntax and other cognitive domains (e.g. discourse) may trigger residual optionality effects is referred to as the Interface Hypothesis (Sorace 2005). Sorace argues for a division between 'narrow' syntax and 'interface' syntax and places the causes of residual optionality with the latter.

Processing deficiency is viewed as a possible cause of L2 optionality besides lack of input frequency and robustness, and L1 transfer. In fact, alongside the presence of insubstantial input, processing cost might be an essential contributor to the observed optionality whereas L1 transfer only plays the role of a remedial strategy. Sorace (2005) argues that structures which involve the integration of purely syntactic knowledge with knowledge from other domains, such as discourse, are more complex than structures which involve syntactic knowledge alone. Therefore, the realization of those complex structures warrants additional processing effort, which makes them more costly processingwise. Insufficient processing resources among L2 learners for an unfailingly successful coordination of syntax with the domain of discourse leads to their resort to a 'low-cost' and most 'economical' option, which is L1 transfer. Sorace also maintains that resource allocation ('the ability to direct attentional resources where they are needed, especially in tasks that are more demanding') exhibits a greater proneness to failure in discourse processing rather than in 'the more automatic aspects of language processing'. Hence, resource allocation effects manifest themselves more distinctly at external interfaces than at internal interfaces.

The purpose of this experimental study is to introduce another case of interface construction by investigating the degree to which L2 learners of Bulgarian, with English as their native language, have acquired the pragmatic function of clitic-doubling in Bulgarian. The participants of the study were advanced speakers of L2 Bulgarian who had resided in Bulgaria for sufficient time to attain a level of proficiency to be possibly aware of the subtlety of a pragmatically felicitous instance of clitic-doubling marking overt topicality. A group of intermediate L2 learners of Bulgarian is included in order to compare competence at the end-state with interlanguage grammar at an earlier stage in the acquisition process.

The results could shed light on the extent to which the pragmatic significance of a specific syntactic construction in Bulgarian has been acquired by near-native L2 learners whose native language not only lacks that construction but also lacks the clitic system of marking referential direct and indirect objects.

The results of the experiment could also provide an empirical test of the Interface Hypothesis since mastery of clitic-doubling marking overt topicality requires both the correct syntactic representation of clitic-doubling and knowledge of the discourse interface conditions that govern the felicitous use of that construction. The obtained data will be investigated for traces of non-native

optionality among the advanced learners at the end-state and more specifically for the overuse of L1 transferred constructions.

2. Overview of Bulgarian object clitics

2.1. Bulgarian object clitic paradigm

Bulgarian has an intricate system of clitics, which includes accusative and dative pronominal clitics, possessive clitics, a future clitic, the present tense forms of the verb 'to be', accusative and dative reflexive clitics and an interrogative clitic. Bulgarian pronominal clitics appear in an 8-member paradigm as illustrated in table 1, and they are marked for case, number and person as well as gender for 3rd person singular clitics. Gender specification of the clitic triggers no agreement in the VP. In Bulgarian, gender agreement takes place only between the subject and the lexical verb marked for past tense. Since Bulgarian does not exhibit a case system, Dative strong pronouns differ from Accusative strong pronouns only by the addition of the preposition *na*. However, clitics have retained their case marking and with the exception of 1st and 2nd person plural, dative and accusative clitics have different forms.

Table 1. Paradigm of Bulgarian Accusative and Dative Clitics and Corresponding Stron	ıg
Pronouns	

	Singular			Plural
1 st person	me/mene (Accusative) mi/na mene (Dative)			ni/nas (Accusative) ni/na nas (Dative)
2 nd person	te/tebe (Accusative) ti/na tebe (Dative)			vi/vas (Accusative) vi/na vas (Dative)
3 rd person	Masc.	Fem.	Neut.	gi/tjax (Accusative) im/na tjax (Dative)
	go/nego (Acc.) mu/na nego (Dative)	ja/neja (Acc.) ji/na neja (Dative)	go/nego (Acc.) mu/na nego (Dative)	

Bulgarian object clitics are preverbal clitics, unlike other Slavic clitics (e.g. Serbian), which are second-position (Wackernagel) clitics (Franks and King, 2000). They invariably appear before the verb regardless of how much material precedes them as illustrated in (1) below.

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    a. Toj sigurno ne ja vižda.
        He perhaps not her-cl see-present, 3p.sg
        'Maybe he doesn't see her.'
        b.*Toj ja sigurno ne vižda.
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Their strictly preverbal position is violated only in cases when it will lead to their being a first element in the sentence and then they appear post-verbally, which in line with the Romance tradition is referred to as Tobler-Mussafia effect.

2.2. Pragmatic effects of clitic doubling in Bulgarian

Bulgarian (alongside Macedonian) displays a phenomenon, which is not found in other Slavic languages, namely clitic doubling, whereby a direct or indirect object DP and a coreferential clitic occur within the same clause (3).

(3) Ivan go vidja Maria.

Ivan him-cl, masc. see-past,3rdp.,sg. Maria
'Maria saw Ivan.'

Clitic doubling is considered one of the defining characteristics of the Balkan Sprachbund (Albanian, Bulgarian, Greek, Macedonia, Romanian)¹. As observed by Guentchéva (2008), in comparison to other Balkan languages, Bulgarian clitic doubling exhibits the slightest degree of grammaticalization and the highest degree of pragmatic significance. In Macedonian all definite direct and indirect objects need to be doubled by a co-referential clitic (Tomić, 2004). Albanian doubles all indirect objects (Kallulli, 2000). Romanian clitic doubling occurs with post-verbal direct objects and the presence of the special preposition *pe*. The function which is most consistently applicable to the usage of clitic doubling in Bulgarian is overt marking of topicality (Leafgren 1992, 1997). In that regard, Lopašov(1978) establishes a grammaticalization continuum for clitic doubling in Balkan languages with Macedonian and Bulgarian at the two extremes and Albanian, Romanian and Greek coming in between those two in decreasing order of grammaticalization.

Although doubling of topical objects in Bulgarian is sometimes argued to be optional, there are plenty of cases when its occurrence is pragmatically required and the lack of clitic doubling would often compromise the felicity and even the grammaticality of the utterance. Let us consider the short dialogue in (4).

(4) A: Njakoj viždal li e Ivan dnes?
Somebody seen Q is Ivan today?
'Has anybody seen Ivan today?
B: a. Ivan #(go) vidjah sutrinta.
Ivan him-cl. saw-1p.sg in the morning
'I saw Ivan in the morning.'
b. Sutrinta #(go) vidjah Ivan.

The answer to a question as in (4) would be deemed pragmatically felicitous if the fronted topic is doubled by a preverbal agreeing clitic. As shown in answer (4a), in instances where the object DP is extracted from its canonical object position and fronted for the purpose of revealing its topic nature, overt clitic doubling is strictly required and its absence would render the sentence pragmatically flawed and, to some extent, even grammatically incorrect unless some pair-list reading is imposed on it. Unlike the double topicality marking (fronting + clitic doubling) in (4a), (4b) has its topical object DP in its canonical position and the only way its topic status could be expressed and the pragmatic felicitousness of the utterance saved is by the insertion of an agreeing clitic in preverbal position. If no clitic doubling is available, the clearly topic nature of the object DP would not be signaled in any way

¹The languages in the Balkan Sprachbund exhibit a number of common features which while uniting them, also set them apart from other languages in their language families. Some of those shared characteristics are clitic doubling, prepositional phrases in the place of oblique cases, an enclitic definite article, lack of 'proper'infinitives, a periphrastic futures tense, adnominal possessive clitics, the Aorist-Imperfect opposition (Dimitrova-Vulchanova and Vulchanov, 2008).

and that would render the sentence pragmatically odd. Moreover, Bulgarian tends to have its focused components in clause-final position, which could further aggravate the pragmatic felicitousness of (4b) as it might not only be lacking in topicality marking, but also be potentially interpretable as a focal construction.

3. An experimental study of the L2 acquisition of the pragmatic effects of clitic doubling in Bulgarian

3.1. Research question

The experimental study sought to ascertain the extent to which native speakers of English had learned a subtle property of Bulgarian grammar which did not occur in their L1, namely, marking of topical objects via clitic-doubling. Since the construction investigated in this study presented a clear case of an interface condition and one of the two groups of participants consisted of very advanced L2 speakers of Bulgarian, it was an effective tool for testing the claims of Sorace's (2006) Interface Hypothesis for end-state divergence with respect to L2 interface properties.

3.2. Participants

The participants in the study were 24 native speakers of English and a control group of 16 monolingual Bulgarian native speakers who live in Bulgaria and communicate in Bulgarian on a daily basis. The L2 learners of Bulgarian were divided into two groups: advanced and intermediate. This division was based on a proficiency cloze test and it was closely correlated with the number of years that the participants had studied and been exposed to Bulgarian. All participants were monolingual native speakers of British English or American English and they had started studying Bulgarian long after the critical period of acquisition.

The advanced participants (n=10) had a mean age of 39.2 years and their mean number of years of exposure to Bulgarian was 12.7 (only one advanced L2 learner had studied Bulgarian for less than 10 years). All but 2 of the 10 participants in the advanced group had lived in Bulgaria for a number of years and were still living there at the time of the experiment. Four of those advanced learners had Bulgarian spouses.

The intermediate participant (n=14) had a mean age of 31.9 years and they had been exposed to Bulgarian for an average of 2.6 years. At the time of the experiment most of them were living in Bulgaria.

3.3. Methodology

The study included a context sentence elicitation task whereby a particular situation was described in English and then followed by a short dialogue. The dialogue consisted of a question and four answer options for which the participants had to provide appropriateness evaluation on a scale from 1 to 5 (5-perfectly acceptable, 1-totally unacceptable).

The experiment included 4 conditions in a 2x2 design: Topic x Focus and Accusative x Dative. While the sentences in the topic condition were aimed at directly testing the knowledge with regard to clitic doubling as an overt marker of topicality, the significance of the focus condition was to ascertain whether in responses to wh-questions the participants recognized the infelicitousness of clitic doubling with focal direct and indirect objects as opposed to its felicitousness with topical objects. Low evaluation of clitic doubling with focal objects would reinforce the presence of knowledge as to its correct pragmatic function, namely marking topicality.

There were 10 short dialogues for each condition with 4 answer options in each of them. For each condition, two of the options were pragmatically felicitous and two were infelicitous. Although the

pragmatic infelicity of some of the sentences considerably degraded them, they were all grammatical sentences if taken on their own and outside of the particular context.

The four options which were to be evaluated were as follows:

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Option 1: [+Object fronting] [+clitic doubling]
Option 2: [-Object fronting] [+clitic doubling]
Option 3: [+Object fronting] [- clitic doubling]
Option 4: [-Object fronting] [- clitic doubling]
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The first two options, which involved clitic doubling, are felicitous in the Topic Condition and were expected to receive higher evaluations in that condition, whereas the latter two options are considered infelicitous in topic contexts and lower evaluations were expected for them. The opposite holds for the Focus Condition where doubling of a focal object is deemed infelicitous and both options 3 and 4, which involve object fronting (with no doubling) and neutral SVO word order, are pragmatically acceptable in that case.

The task was presented to the participants both in writing and in spoken language recorded by two native speakers. Below is a sample test item which illustrates the topic accusative condition:

```
(5) A: Poluči
                          li koleta
                                      ot
                                            Peter?
      receive-2p.sg.past Q package from Peter
      'Did you receive the package from Peter'
    B: a. Koleta
                                polučix
                                                   minalata sedmica.
                       go
         package-def. him-cl. receive-1p.sg.past last
                                                            week
         'I received that package last week'
      b. Minalata sedmica go polučix koleta.
      c.#Koleta polučix minalata sedmica.
      d.#Minalata sedmica polučix koleta.
```

The first two answer options (5a and 5b) consist of a topical object doubled by a co-referential clitic, which is the pragmatically felicitous response to the question in (5), whereas the latter two options are pragmatically infelicitous.

3.4. Results

In order to determine if the differences in appropriateness evaluation between the pragmatically felicitous candidates and the other two options were statistically significant, repeated-measures ANOVA and a Tukey HSD post hoc comparison were performed. Probability of p<.05 was taken as an indicator of statistical significance.

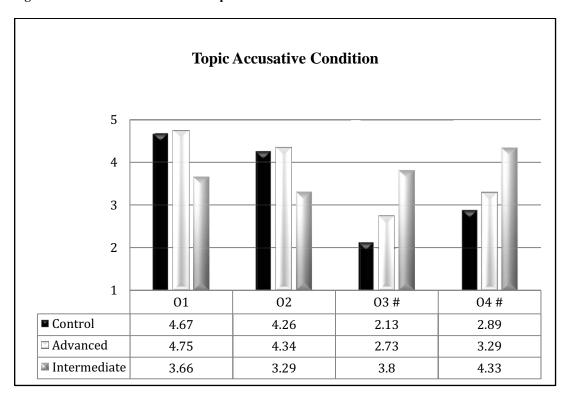
Below is a list of the major findings of the experimental study:

- Eight out of 10 advanced learners gave evaluations of the felicitous options 1 and 2 in the topic accusative condition that were significantly higher than the evaluations for the infelicitous options 3 and 4. In this respect, they were non-distinguishable from the native controls
- Six out of 10 advanced learners gave evaluations of the felicitous options 1 and 2 in the topic dative condition that were significantly higher than the evaluations for the infelicitous options 3 and 4. However, a very important caveat needs to be issued with respect to the results in the topic dative condition. For some reason, which is beyond the scope of this paper, lack of clitic doubling with topical indirect objects does not seem to degrade the felicity of the sentence to the same extent as the lack of clitic doubling with topical direct object does. This is reflected in the results of the control group, whose evaluations for option 3 (fronting with no clitic doubling) in the topic dative condition are significantly higher than the evaluations for the same infelicitous option in the topic accusative condition (mean 3.18 vs 2.13, out of 5).

- Two of the intermediate participants also gave native-like evaluations in both the accusative and the dative topic conditions.
- Twelve out of 14 intermediate participants gave evaluations diverging from those observed in the control group and the majority of advanced speakers. There was either no statistically significant difference between the four options, or the infelicitous no-doubling options 3 and especially 4 received significantly higher evaluations. The latter observation was indicative of L1 transfer as those are the options that are used in English in similar contexts.
- All advanced speakers performed in a native-like manner with respect to the evaluations given to the four answer options in both the accusative and the dative focus conditions.
- The intermediate participant also gave mostly native-like responses in the focus conditions. In view of their performance in the topic conditions, where they often preferred the infelicitous options 3 and 4 with no clitic-doubling, it could be concluded that their native-like evaluations are the result of their general preference for those options rather than any knowledge of the infelicity of clitic doubling with focal constructions. This is not surprising considering the fact that their L1 does not use clitics, let alone clitic doubling, which makes them uncomfortable with clitic constructions at that stage in their L1 acquisition process.

Figures 1 and 2 below show the group results in the topic and the focus accusative condition. The differences in the evaluations of the control and the advanced group for the felicitous options 1 and 2 in the topic accusative condition are statistically significant from the evaluations of the infelicitous options 3 and 4. The intermediate group, on the other hand, gives highest evaluations to the infelicitous option 4 (neutral SVO word order), which is exactly what their L1 uses in those cases.

Fig.1. Sentence evaluations in the Topic Accusative Condition



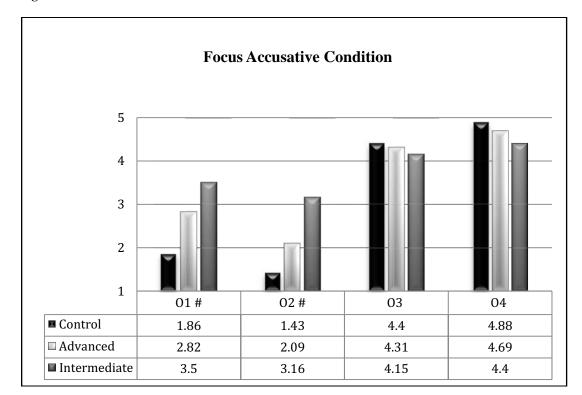


Fig.2. Sentence evaluations in the Focus Accusative Condition

5. Conclusion

The results of the experimental study show that advanced learners of Bulgarian with English as their native language can successfully acquire the pragmatic meaning of clitic-doubling in Bulgarian as their performance on the context sentence evaluation task does not differ significantly from that of the control group of native Bulgarian speakers in both the Topic and the Focus condition.

Almost all of the advanced learners display clear preference for the clitic-doubling options, which receive an evaluation above 4 in both the dative and accusative topic conditions. The strongly native-like performance by the advanced learners in both the Topic and Focus conditions shows that properties at the interfaces are learnable rather than impossible to acquire as some of the research on that issue would claim.

The results of the intermediate learners show strong preference for the infelicitous non-clitic-doubling options in the topic conditions. Their preference for an SVO (English-like) word order as a response to most of the questions in the accusative and dative topic conditions can serve as an argument in favor of a strong L1 influence. This might be indicative of the fact that they are still unaware of the pragmatic significance of fronting and clitic doubling, although with further exposure to Bulgarian they are expected to perform like the advanced group.

The claims of the Interface Hypothesis for permanent L2 deficiency in interface coordination are not borne out by this experiment as learnabilty of interface properties by advanced L2 learners is shown to be possible. Therefore, it might be the case that interfaces are problematic at the earlier stages of acquisition but, overall, their properties are learnable and at the level of ultimate attainment, those properties are acquired and used in a native-like manner. Therefore, to generalize about the impossibility for ultimate attainment of interface properties and to completely exclude learnability as an option might be a little premature and a lot more research, exploring as many interface conditions

as possible, needs to be done in order to validate the Interface hypothesis as a legitimate constraint which permanently hinders native-like performance at the end-state.

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