

CHAPTER FOUR

CLITIC PLACEMENT IN CYPRIOT GREEK: A MATTER OF LEXICAL AND SYNTACTIC STIMULATION?*

ELENA PAPADOPOLOU, EVELINA LEIVADA,
AND NATALIA PAVLOU

1. Introduction

This paper investigates clitic placement in Cypriot Greek (CG), for which pre- or post-verbal placement varies across syntactic environments (see Terzi, 1999; Grohmann et al., 2012, for a general overview) from the perspective of lexical and syntactic stimulation in experimental settings. The syntactic phenomenon under examination is approached through an on-line experimental task, word order and clitics in Greek (WOCG) that aims to delineate stimulation effects in relation to the choice of proclisis or enclisis in indicatives in CG. Direct object clitic placement in indicatives gives rise to one of the most salient differences across CG and Standard Modern Greek (SMG); one of the two official languages of the Republic of Cyprus: CG involves enclisis (1), whereas SMG involves proclisis (2).

- (1) O Yiannis θcavazi to. [CG]
the Yiannis reads it.CL
‘Yiannis is reading it.’

* We would like to thank the editors, Kleanthes Grohmann and Theoni Neokleous, two anonymous reviewers and our fellow Cyprus Acquisition Team members for their useful comments as well as all audiences of the conferences where this work has been presented. We acknowledge financial support from the Spanish Ministry of Economy and Competition through project FFI2010-20634 and a scholarship from the Cyprus State Scholarship Foundation [EL].

- (2) O Yiannis to ðjavazi. [SMG]
 the Yiannis it.CL reads
 'Yiannis is reading it.'

In the present work, the focus is on adult performance in an effort to investigate (i) to what extent certain CG-specific lexical choices or syntactic structures affect clitic placement as pre- or post-verbal and (ii) what counts as target placement in what children receive as input when they acquire clitic pronouns in an environment that involves at least two varieties which show conflicting clitic placement patterns in some syntactic environments.

Previous studies on the acquisition of clitic placement in CG (Leivada et al., 2010; Grohmann, 2011; Grohmann et al., 2012; Grohmann and Leivada 2012, among others), suggest that clitic placement in *because-islands* (COST A33 clitics-in-islands tool; see Varlokosta et al., to appear for a detailed description of the tool and the test stimuli) is mainly post-verbal before 59 months of age in Greek Cypriot children and it later shows mixed placement patterns, possibly due to the schooling factor which involves the formal insertion of SMG in school education.

It is crucial that experimental findings in first language acquisition research are evaluated through having a clear understanding as to what counts as target placement in adult CG. The claims found in the literature show some degree of divergence with respect to the performance of adult populations (i.e. used as control groups) even for the same clitics-in-islands tool. More specifically, the control group in Grohmann et al. (2012) showed 100% post-verbal production. When the same experiment was conducted in both varieties, SMG and CG, 'monolingual' Greek Cypriot participants produced nearly 100% pre-verbal clitics in the SMG version of the test and 76.6% post-verbal clitics in the CG version (Leivada et al., 2010). Taking into account the small number of adult participants in both studies as well as the use of because-islands instead of simple declaratives, this study aims to (i) re-approach the issue of clitic placement in adult populations and (ii) identify which factors drive and affect target placement in adult CG, hypothesizing that lexical and syntactic stimulation (i.e. input) is the main factor for the conscious choice of producing pre- or post-verbal clitics. In this context, the different results elicited by different testing rounds in previous experiments are interpreted as the consequence of using CG-specific lexical items, albeit not consistently, in the sense that a SMG word was sometimes employed whereas a CG-specific word was also available.

157 Greek Cypriot monolingual adults, born and raised in Cyprus have

participated in the present experiment. The experiment consists of 16 questions, and 4 fillers, equally divided, 8 in a CG-specific and 8 in a SMG-specific block. Each block makes use of verbs and nouns that are as specific to the attested variety as possible — given that CG is very heterogeneous — in an effort to see to what extent lexical items affect placement. Moreover, the effects of syntax are tested through word-order, since we followed a VOS pattern for the CG questions (following Vassiliou, 1995 and Plunkett and Pavlou, 2011). The introduction to the topic was the same in both varieties in terms of word-order, but the lexical items differed in being CG-specific or not, hence establishing the difference between the two varieties in the following way:

- (3) O Yiannis esasen to ermarin. [CG]
the Yiannis fixed the wardrobe
 ‘Yiannis fixed the wardrobe.’
- (4) I Katerina eftjakse tin kupa. [SMG]
the Katerina fixed the swing
 ‘Katerina fixed the swing.’

Taking (3)-(4) as input, participants were asked what the person did to the relevant object; a question for which the target response involves the production of a verb and a clitic. Block order (CG or SMG) was treated as a between-subjects variable with 100 participants completing the CG-SMG order and 57 participants the SMG-CG order. This switch of block order aims to investigate possible carry-over effects from the one variety to the other. The questionnaire was administered online and it was presented in Facebook writing¹ — CG and SMG written in the Latin alphabet. This was employed due to the lack of codification for CG; a lack that poses some restrictions on the presentation of written language, which usually appears in the form of Facebook writing (Armosti et al., 2011; Leivada et al., 2013) when appearing online. Therefore, the simplest phonological adaptation of a number of spontaneously written responses by native speakers of CG was adopted.

The discussion is structured as follows: In section 2, the lay of the land with respect to the status of clitics in CG and the acquisition of clitic placement in this language is briefly presented. The experimental stimuli and procedure are discussed in detail in section 3. Sections 4 and 5 focus

¹ This was chosen due to a lack of consensus for official codification of CG, given that the language lacks the status of an official language.

on results and discussion of findings respectively, while section 6 concludes and offers some prospects for further related research.

2. Background

This section first offers some background information in terms of the variety investigated. Second, it reviews the findings of previous studies on the acquisition of clitic placement in CG mostly in relation to their control groups comprised of adults. This aims to establish the link with the results of the present experiment in section 4, which deals with adult performance in experimental settings that make use of elicitation tasks. This performance will later be compared to children's performance in a pilot study conducted. Last, the final part of this section establishes the link with priming and stimulation effects in such tasks.

2.1. The Sociolinguistic Status of CG

CG is the variety of Modern Greek spoken in the southern territories of Cyprus. It has been frequently described as a dialect of Modern Greek and further classified as a southeastern dialect of Greek (Contossopoulos, 2000). It is not constitutionally recognized as an official language, and its lack of official status can be related to the aforementioned lack of codification, which in turn resulted in using the Latin alphabet instead of a (Cypriot) Greek one for the presentation of the test stimuli.

The official languages of the Republic of Cyprus, according to Article 3 of the constitution of 1960, are SMG and Standard Turkish; however, our participants have no knowledge of Standard Turkish as this is not in use in the southern part of the island. Our participants do have exposure to SMG though, since this is the variety taught at school, at least as claimed by the Ministry of Education, featured in many television programs, and further used in a variety of social circumstances that involve some formality in terms of register. This means that the use of CG co-exists with the use of SMG in Cyprus and this co-existence frames acquisition in a way that involves a continuum formed by the dialect and the standard variety. The interplay of sociolinguistic attitudes towards the two is a well-documented fact (see, for instance, Papapavlou 2001), hence it will not be discussed in any further detail in the present study.

The only part of the (socio)linguistic status of the varieties under discussion that will be emphasized is the one that pertains to acquisition and metalinguistic awareness that probably derives from the marginalized, sometimes explicitly commented upon as an inappropriate language to use

at school, status of the non-standard variety. Despite the fact that the language that children get exposed to at home is CG (at least in ‘monolingual’ settings, ignoring cases of bi-/multilingualism when this refers to languages other than CG and SMG), they appeared to align themselves with the standard variety and gave answers that involve proclisis instead of enclisis in one of the experiments that used the clitics-in-islands tool (Leivada et al., 2010; for a more recent comparative review of all the relevant results across testing rounds, see Grohmann and Leivada, 2012). The same pattern, to a more limited extent, was observed in the control group of adults: as mentioned in the previous section, some monolingual Greek Cypriots produced nearly 100% target proclisis in the SMG version of the test and 76.6% target enclisis in the CG version. In other words, monolingual adults might also choose to align themselves with the sociolinguistically ‘high’ variety in an experimental setting.

The two languages, SMG and CG, exhibit differences in all levels of linguistic analysis. One of the differences in morphosyntax relates to clitic placement. It is identical across the two varieties in some environments (e.g., imperatives), but not in others (e.g., indicatives). The environments in which the two varieties show a conflict invests acquisition with the additional factor of competition: Tsiplakou (2007) makes reference to competing grammars and Grohmann and Leivada (in press) to competing motivations that arise from distinct albeit very closely related and simultaneously acquired varieties. The lay of the land with respect to the acquisition of clitic placement in CG as well as the factors that affect and inform it are presented next.

2.2. Acquisition of Clitic Placement in CG

Acquisition of clitic production and placement is probably the most investigated phenomenon of the CG grammar and the focus of many recent studies (Petinou and Terzi, 2002; Grohmann, 2011; Grohmann et al., 2012; Neokleous, 2013).

The first study that investigated acquisition of clitic placement in CG was by Petinou and Terzi (2002). These authors reported that by age three children have acquired clitic placement and subsequent results obtained through the COST A33 clitics-in-islands tool were in line with this finding. Petinou and Terzi (2002) further claimed that in the first stages of the acquisition process, an overgeneralization of enclisis over proclisis is witnessed and this overgeneralization may appear regardless of proclisis-licensing functional elements.

Grohmann (2011) and Grohmann et al. (2012) focused on clitic

placement through the COST Action A33 clitics-in-islands testing tool. The latter constitutes an elicitation task for 3rd person accusative, direct object clitics within syntactic islands, i.e. a *because*-clause. The results showed an increase of (non-target for CG) pre-verbal clitic placement which was boosted as the child proceeded to the next level of schooling, where SMG is the language of instruction from 1st grade onwards.² These findings were approached from different angles in the respective studies and in relation to many perspectives: the schooling factor, what counts as target structure in adult production of indicatives and whether this environment always features enclisis in CG, aspects of the socio-syntactic development of children that acquire language in bilectal settings such as the one in Cyprus.

The present study adopts the perspective of lexico-syntactic stimulation factors and possible carry-over effects across test stimuli to shed light on whether placement patterns might be affected by these factors.

2.3. Stimulation Effects

The version of the COST Action A33 tool that was utilized in the aforementioned studies was in CG and many test structures involved dialectal elements that are CG-specific. However, CG is not homogeneous; there are varying manifestations of it, each of which comes with a different level of proximity with the standard SMG. In this context, the results reported in previous experiments are the consequence of using CG-specific lexical items, albeit not consistently, in the sense that a SMG word was sometimes employed whereas a CG-specific word was also available. Also, the word-order at times deviated from VOS, which we

² SMG is the language of instruction in Cyprus according to the official educational policy and the majority of textbooks is imported from Greece, hence are written in SMG. However, many studies have documented interference of CG in oral and/or written discourse from the perspective of the student (e.g., Pavlou and Christodoulou, 2001; Ioannidou, 2002; Yiakoumetti, 2003). Ioannidou's (2007) research investigated the instances that gave rise to the use of CG by the students and to some extent by their teachers too, whereas Pavlou and Fousias (2005) documented teachers' attitudes, who were occasionally shown not to "pay special attention" to their oral performance. Moreover, CG interference in teachers' performance could be attributed to the fact that even if they do pay special attention, their performance in SMG is not comparable to that of a native speaker of SMG from mainland Greece, hence by definition, their "SMG" performance is likely to show dialectal elements no matter how conscious they are with respect to the variety they use (Leivada et al., 2012).

take to be the unmarked order for CG, in line with Vassiliou (1995) and Plunkett and Pavlou (2011): CG-specific items were combined with a non-VOS word order.

Priming effects in elicitation tasks such as the clitics-in-islands test and other similar tools are known to affect participants' performance. Focusing on CG, Papadopoulou (2013) reports that Greek Cypriot children are primed with CG-specific *wh*-questions at nearly 100% while retaining abstract syntactic formulae and using them productively. Similarly, Grohmann and Leivada (2013) argue that in an elicitation task that involved syntactic islands and aimed to elicit a (light) verb-clitic production, children were shown to reproduce light verb constructions that are possible but not in use in adult language, when they were primed with them. Observing this, the question that arises is how sensitive participants are in such elicitation tasks with respect to lexical and syntactic stimulation.

Deciphering priming and stimulation effects in adult language through another tool that involves clitic production will give a new spin to the wheel by investigating what counts as target placement in adult CG indicatives, as well as to what extent lexico-syntactic stimulation influences participants' choice with respect to clitic placement in CG, especially in experimental settings.

3. Method

3.1. Participants

Participants were divided in two groups for the presentation of the data following the order of the blocks. The first order had the block presenting the test items in CG first and then the test items in SMG. The second order involved the exact opposite. The subjects participated randomly and there was no control with regard to the gender or the educational level.

Table 4-1: Demographics according to the two orders

Group	N	Gender M / F	Mean	SD
CG-SMG	100	37 / 63	25;6	7;0
SMG-CG	57	11 / 46	24;3	5;2
Total	157	48 / 109	24;8	6;4

Most of the participants had university level education and very few were reported to have primary education.

Table 4-2: Participant education according to the two orders

Group	Primary	Secondary	College	University
CG-SMG	2	17	3	77
SMG-CG	1	11	3	42
Total	3	28	6	119

The data presented in this paper are based on the preliminary data collected from the first participants.

3.2. Materials

Word order and clitics in Greek (WOCG) experiment was designed in a specific way to contrast the same verb meaning with the use of two different words in CG and SMG. This was accomplished through consideration of the verb roots: if the root was not completely different, it was, at least, not identical. The purpose of this strategy was to aim for effects appearing in CG-specific environments vs. SMG-specific environments. Another important factor was that the content words in the test stimuli of the one variety were not used in the other variety according to the author's judgments. The test items are presented in Table 4-3.

Table 4-3: Test verbs

CG	SMG	translation
andinasso	tinazo	'shake'
kundo	skudo	'push'
zavono	stravono	'bend'
ak ^h ano	ðagono	'bite'
kruzo	keo	'burn'
sazo	ftjaxno	'fix'
pit ^h ono	plakono	'crash down'
strandʒizo	surono	'strain'

The nouns and names of agents, as well as the verbs used, were specific to each variety. The relevant contrast appears below:

- (5) O Yiannis esasen to ermarin. [CG block]
the Yiannis fixed.3SG the wardrobe.ACC
 ‘Yiannis fixed the wardrobe.’
- (6) Indambu ekamen to ermarin o Yiannis?
what do.3SG the wardrobe.ACC the Yiannis
 ‘What did Yiannis do to the wardrobe?’
- (7) I Katerina eftjakse tin kuja. [SMG block]
the Katerina fixed.3SG the swing.ACC
 ‘Katerina fixed the swing.’
- (8) Ti ekane i Katerina tin kuja?
what do.3SG the Katerina the swing.ACC
 ‘What did Katerina do to the swing?’

The syntax of the test questions was adapted to the same contrast, with CG-specific items in VOS order (Plunkett and Pavlou, 2011) and VSO order for SMG-specific items.

Lastly, as mentioned already, the lack of official codification in CG led to the presentation of the test items in Facebook writing following the simplest phonological adaptation (for a more detailed discussion, see Leivada et al., 2013).

3.3. Procedure

WOOG was designed by using the online tool SurveyMonkey and was distributed to the participants through the online community of Facebook. Participants were presented with each test item separately and once they submitted an answer, they could not undo their decision and change it. In this way, it was ensured that participants provided their first, unbiased answer and did not apply any metalinguistic knowledge/awareness with regard to the choice of the variety, once material from the other variety was introduced.

Prior to the start of the experiment, some demographic questions were presented and the participant could not proceed to the experiment without providing the relevant answers.

The distribution of tasks through the Facebook online community has

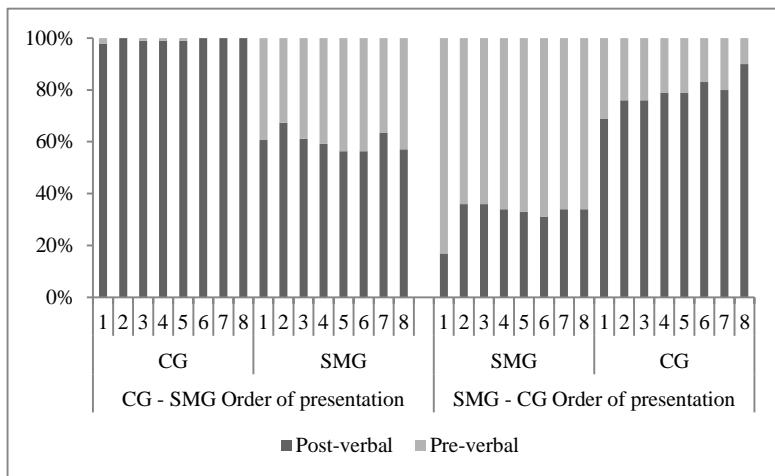
appeared to be a very effective way for data collection, as it is spread quite rapidly and participants have the chance to provide useful comments without the presence of a researcher. The use of the particular tool assisted the control of the time spent by each participant on the task by recording it and therefore, indicating any exceptions that needed to be taken out of the sample.

4. Results

The results analyzed in this section are always presented by language block. The two language blocks, SMG and CG, are formed through the use of language-specific nouns (agents and patients) and verbs, as described in section 3.2 above. At a second level, the analysis proceeds based on the separate order of presentation of the aforementioned language blocks; SMG–CG or CG–SMG.

Initial item analysis (Figure 4-1) illustrates that participants produce mainly the targeted structure within each language block; post-verbal clitics for CG blocks and pre-verbal clitics for SMG blocks.

Figure 4-1: Item analysis – Overall clitic production



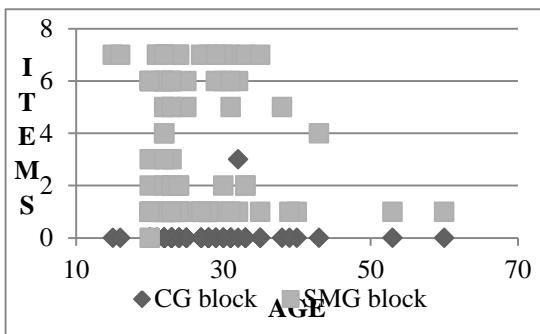
Specifically, as for the CG blocks participants produce post-verbal clitics more than 98% of the time when they are primed with CG and 65% and above when primed with SMG. Post-verbal clitics are always produced at lower rates within SMG blocks, up to 65% for the CG–SMG

order of presentation, and up to 35% for the SMG–CG order of presentation.

An input priming effect is suggested for pre-verbal clitic production since pre-verbal clitics are produced only when primed with SMG, either within the same language or in the preceding language block, as for the SMG–CG order or presentation. In contrast, post-verbal clitics are always produced, but in lower rates within the SMG language block. This could suggest either that post-verbal clitic placement is indeed the default placement for CG native speakers or that the instructions, written in CG, given to the participants prior to the beginning of the first language block, affected/primed post-verbal production. For this reason post-verbal clitics were produced at up to 35% in the SMG block for the SMG–CG order of presentation.

Considering the overall results, we tried to see whether there were any participant effects which could assist the identification of possible patterns in clitic production. To be more precise, the aim was to see whether post-verbal clitics were mainly produced by specific participants in the SMG blocks and vice versa.

Figure 4-2: Participant analysis – CG–SMG order of presentation

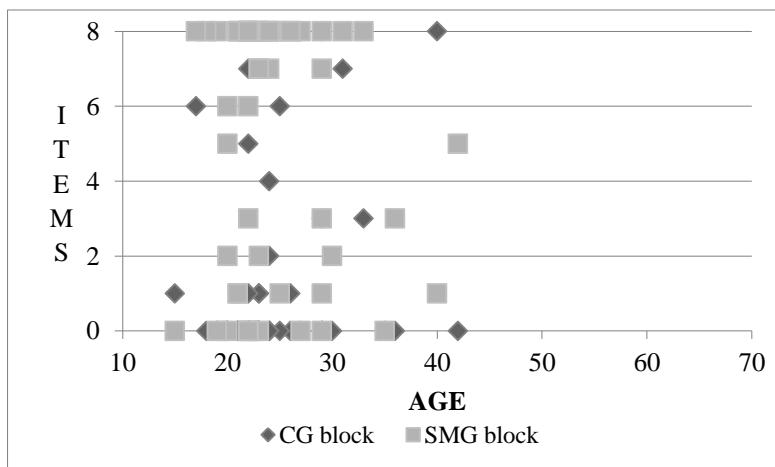


Running the analysis (Figure 4-2 right above), it became apparent that only one participant, aged 31, produced 3/8 pre-verbal clitics in the CG block for the CG–SMG order of presentation. Two more participants produced pre-verbal clitics at 50% and post-verbal clitics at 50% for the

SMG block for the same order of presentation. Interestingly, quite a few participants were strongly primed by the CG block resulting in producing only 1-3 pre-verbal clitics in the SMG block.

The analysis for the SMG–CG order of presentation (Figure 4-3 below) showed that 4 participants produced pre-verbal production at 100% in the CG block and 6 participants produced pre-verbal clitics at 50% and above for the same block. This is a pattern that was not observed for the CG–SMG order of presentation suggesting the strength of input on the one hand and the duration of priming across different items in the adult language, on the other.

Figure 4-3: Participant analysis – SMG–CG order of presentation



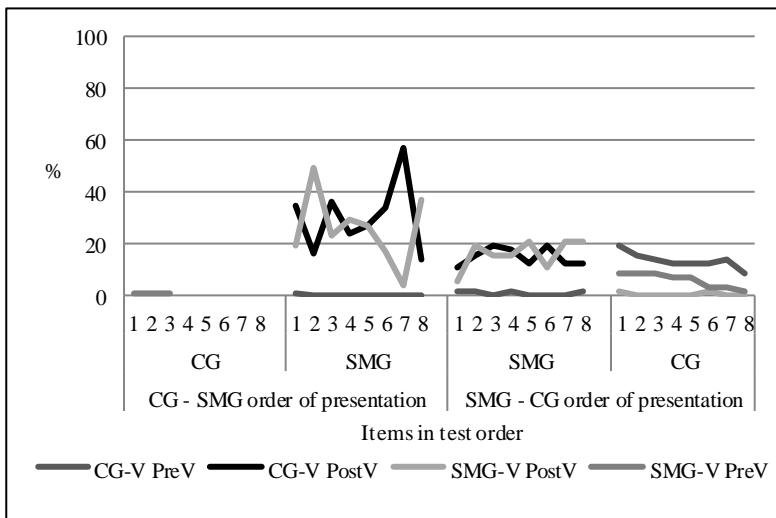
Since no specific patterns were observed through the participant analysis, a further detailed item analysis was deemed necessary. An attempt was made to observe the possible effects, if any, that the verbs (Table 4-3 above) in the sentences could have had on clitic placement. No analysis is provided for specific nouns used in the sentences as both agents and patients are specific to each variety. On the contrary, verbs varied with respect to the degree of root/stem similarity with their counterparts in each of the two varieties; CG and SMG.

Apart from the production of the target verb with the target clitic placement for each block (CG-specific verb followed by clitic (CG-V Post-V) and SMG-specific verb preceded by clitic (SMG-V Pre-V)), two more combinations were observed, namely the use of:

- a. CG-specific verb preceded by clitic (henceforth, CG-V Pre-V)
- b. SMG-specific verb followed by clitic (henceforth, SMG-V Post-V)

CG-V Pre-V (Figure 4-4) sequences were produced in the CG block in a few cases (less than 5%), whereas they were produced at the rate of 20% for the first item of the block and less than 10% for the last item of the block in the SMG–CG order of presentation clearly suggesting the effect of priming. The high degree of priming from SMG at the first item of the CG block in the SMG–CG order of presentation weakens once the priming of CG gets stronger.

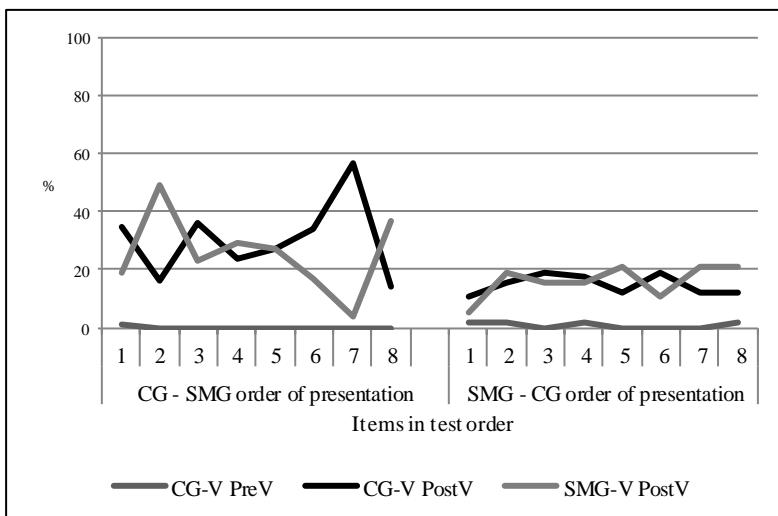
Figure 4-4: Overall non-target production



The greatest variation is observed in the two SMG blocks where target SMG verbs were followed by post-verbal clitic placement and non-target CG specific verbs were preceded by pre-verbal clitic placement. As depicted in Figure 4-5, SMG-V Post-V was produced more in the SMG block in the CG–SMG order of presentation rather than in the SMG–CG order of presentation possibly due to effects of (language specific) priming from the previous block. As expected due to strong block (language specific) priming CG-V Pre-V was produced in the SMG block in the CG–SMG order of presentation at a relatively high percentage 15%–55%. Strikingly enough, CG-V Pre-V was also produced in the SMG block in

the SMG–CG order of presentation despite the absence of previous block priming. As suggested already above, this could have been the result of the priming of the instructions given in CG.

Figure 4-5: Verbs – SMG Block

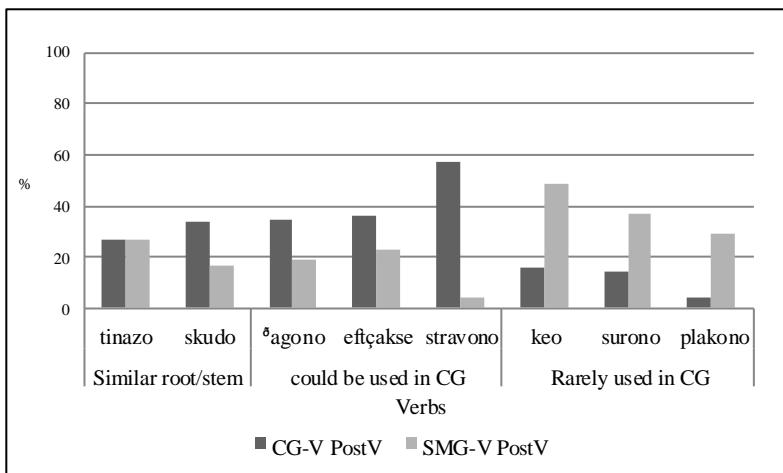


In order to decipher the reasons that could have underlined the production of CG-V Post-V and SMG-V Post-V in the SMG block in the CG–SMG order of presentation, a detailed analysis of the verbs was conducted. Figure 4-6 below depicts the three different categories of verbs depending on root/stem similarity between the two varieties. As already mentioned in section 3.2 above the three categories correspond to (i) those verbs that have similar root/stems (such as *tinazo* ‘shake’ and *skudo* ‘push’), (ii) those that have a similar stem/root and could be used in CG, but not in the specific context of the test item (such as *ðagono* ‘bite’, *fjaxno* ‘fix’ and *stravono* ‘bend’) and (iii) the last category with verbs that are rarely used in CG (such as *keo* ‘burn’, *surono* ‘strain’ and *plakono* ‘crash down’).

For verbs with a similar root/stem in both varieties (categories (i) and (ii) above), results revealed a preference for the production of a post-verbal clitic preceded by a CG-specific verb (CG-V Post-V). On the other hand, in relation to verbs that are rarely used in CG (category (iii) above), there was a preference in the instances of post-verbal placement for the use

of SMG verbs rather than CG-specific verbs. As it seems, verbs with similar root/stem (category (i) above) to those in CG and verbs that could be used as such in CG, even in a different context (category (ii)), are more affected by the priming of the previous CG block in the CG–SMG order of presentation. This allows for the production of CG-specific verbs rather than SMG-specific verbs in the SMG block in the CG–SMG order of presentation. On top of this, post-verbal clitic placement with SMG-specific verbs is triggered by the previous block (CG) received as input.

Figure 4-6: CG–SMG order of presentation – SMG Block



All in all, clitic production is affected by the (language-specific) input received at different levels. Precisely because of that, CG blocks show greater priming effects for the production of CG-specific elements (CG-V PostV) than SMG blocks for SMG specific elements. The greater variation within SMG blocks could rely on the degree of similarity of the root/stem of the verb used.

To summarize, we observe that participants produced the target structure within each language group, hence showing an effect of priming. Pre-verbal clitics are only produced when primed, while at the same time there are carry-over effects for post-verbal clitics. At the same time, post-verbal clitics showed a less significant effect of priming. The greatest variation within non-target placement was found in the SMG block. We will discuss possible reasons for this in the following section.

5. Discussion

In this study, we report indications for input priming effects on clitic production and more specifically effects of the specific language blocks' presentation order. Adult native CG speakers are more likely to produce a post-verbal and a pre-verbal clitic, when primed by CG and SMG respectively. When looking closer at the results analyzed in the previous section, it seems that both lexical and syntactic structures affect clitic placement. The underlying motivation for carrying out this study was to further develop and attest the observation that syntactic and lexical stimulation affects clitic production. The debate on whether it is only lexical items and/or syntactic structures that affect adults' post/pre-verbal production remains unclear, since this experiment did not dissociate between these two levels;³ i.e. CG-specific vocabulary (lexical level) with preferred SMG word-order (syntactic level) and vice versa. Such an attempt would probably result in peculiar sentences, as the mixing of the two codes would be unfamiliar to the speakers. Even if the priming sentence followed SVO word order, the actual question aiming for the production of the clitic followed VOS (for CG) and VSO (for SMG). VSO order in questions would be odd for CG speakers though. Of course, the lexical choice of items would be for most cases incomprehensible, as most of the words used for either variety were carefully selected as not to be used in the other variety.

As mentioned in sections 2 and 2.2 above, Grohmann et al. (2012) control group showed 100% post-verbal clitic placement in *because-islands*, when the experiment was conducted in CG. On the contrary, Leivada et al. (2010) when conducting the same experiment in both CG and SMG found that adults produced 76.6% post-verbal clitics in the CG version and 100% pre-verbal clitics in the SMG version. Since in both Grohmann et al. (2012) and Leivada et al. (2010) experiments, lexical and syntactic cues/input were not dissociated; similarly to the experiment discussed throughout this paper it can be inferred that SMG input effects are stronger than CG input effects. This could be attributed to two possible reasons, namely a) the fact that SMG does not allow for post-verbal clitic placement (except for imperatives), hence only one option is available b) that CG allows for both post- and pre-verbal clitic placement depending on whether the speaker speaks/reads Cypriot Standard Greek (Arvaniti, 2010), *xorkatika* (Newton, 1972), or even high CG (H) which is closer to

³ More details on the possible weakness of the experiment are provided in the next section.

SMG. Precisely SMG, the variety of Greek spoken in mainland Greece, whose linguistic ‘boundaries’ are easily defined, differs extensively –with pronunciation and lexical items being the most profound differences- from the variety of Greek spoken in Cyprus. Within the CG continuum, the distinction between the low acrolect (L) known as *xorkatika* (Newton 1972) and the most prestigious H CG acrolect is obvious, but any other distinction between Cypriot Standard Greek (Arvaniti, 2010) and the high variety H and low L variety is not clear.

An input priming effect is suggested for pre-verbal clitic production since pre-verbal clitics are produced only when primed with SMG, either within the same language, or in the preceding language block; as for the SMG–CG order or presentation. In contrast, post-verbal clitics are always produced, but in lower rates when within the SMG language block. This could either suggest that post-verbal clitic placement is indeed the default placement for CG native speakers or that the instructions, written in CG, given to the participants prior to the beginning of the first language block, affected/primed post-verbal production. For this reason post-verbal clitics were produced at up to 35% in the SMG block for the SMG–CG order of presentation.

Input priming effects are reinforced when comparing post-verbal clitics with other CG-specific elements such as *embu* ‘is-it-that’, a focus particle in CG outlying the *embu*-strategy (Papadopoulou, 2013). While retrieving information from previous studies dealing with *embu* ‘is-it-that’ (Papadopoulou, 2013) and post-verbal clitic placement, it can be inferred that production of CG-specific elements such as *embu* ‘is-it-that’ and post-verbal clitics is not achieved unless these CG-specific elements/structures are (strongly) primed. The adult control group in the Syntactic Priming Experiment in Cypriot Greek (SPE-CG) (Papadopoulou, 2013) as in Table 4-4 below produced 28% of the CG-specific element, *embu* ‘is-it-that’, with the most CG-like word order (Subj + V + Wh) and only 15.3% with the most SMG-like word order (Wh + V + Subj). Syntactic structure affected more the production of CG-specific elements/structures than just the lexical entry by adults. The same pattern was also observed with the three age groups of children participating in SPE-CG. Namely AG1 (mean age = 3;3) and AG2 (mean age = 4;4) produced *embu* ‘is-it-that’ at 23.3% and 19% for the most CG-like word order and only at 1.3% and 4.8% for the SMG-like word order. On the contrary AG3 (mean age 5;6) produced 5.8% and 17.3% for the CG-like and SMG-like word order respectively. AG3’s performance could be attributed to some schooling effects as discussed in Papadopoulou (2013) which are in line with Grohmann et al. (2012).

Table 4-4: SPE-CG (Papadopoulou, 2013)

Prime	AG	Subj + V + Wh		Wh + V + Subj	
		Production			
		+Embu	-Embu	+Embu	-Embu
+Embu	AG1	23.3	76.7	1.3	98.7
	AG2	19	81	4.8	95.2
	AG3	5.8	94.2	17.3	82.7
	Control	28	72	15.3	84.7
-Embu	AG1	—	100	1.4	98.6
	AG2	—	100	—	100
	AG3	0.3	99.7	3.4	96.6
	Control	—	100		

Looking closer at lexical choices, namely the nouns used, overall items did not show great variability between them, hence no assumptions could be made on the ground of some lexical entries affecting more the production of the pre- and/or post-verbal placement.

Choice of verbs, on the other hand, affected clitic placement since as mentioned in figures 4-4, 4-5 and 4-6 there are only a few cases of incorrect placement with CG-specific verbs. To be more precise, preverbal production with a CG-specific verb (CG-V preV) in the CG block in the SMG-CG order of presentation is at maximum 20% for item 1 of the block decreasing down to 8% for the last item of the block. SMG-specific verbs were used with the inappropriate clitic placement (SMG-V Post-V) in both SMG blocks, irrespective of the order of presentation (more (50%-5%) in the CG-SMG order of presentation). This suggests that CG-specific verbs are ‘bound’ to post-verbal placement, whereas SMG verbs show greater variability, since they can be used in CG as well in some cases (mainly H CG and/or CSG).

Finally, verbs with similar root/stem and verbs that could be used in CG are used with preference for production of a post-verbal clitic preceded by a CG specific verb (CG-V Post-V). On the other hand, verbs that are rarely used in CG are used with preference in post-verbal placement for the use of SMG verbs, rather than CG-specific verbs. As it seems, a) verbs with similar root/stem to those in CG and b) verbs that could be used as such in CG, even in different contexts, are more affected by the priming of the previous block allowing for the production of CG-specific rather than SMG-specific verbs. While allowing this, the similarity of root/stem and frequency in the input is no longer a parameter.

The block input received along with the instructions given in CG affects clitic production, hence triggering post-verbal placement with SMG specific verbs within SMG blocks.

Mixing is harder to capture, but there are certain contexts when switches from CG to SMG take place. It is worth noting that CG speakers code-switch to SMG once exposed to it. In the presence of a Greek speaker, CG speakers switch to an SMG-like form based on their competence in SMG from school education. This experiment follows from this observation, namely that CG speakers will switch to a completely different mode when exposed to the SMG syntax or vocabulary and this should be a factor taken seriously into consideration in future experiments addressing this particular population.

Before discussing what counts as target placement in adult/child CG, a brief description of the first adaptation of this experiment with children as part of the authors' ongoing study is discussed below.

The same experiment with a slightly different methodology was also conducted with children as part of the three authors' work in progress. Results from the first pilot study conducted with only two children (5;8 and 5;6) will be presented below along with the first results of 10 adults controls who received the input orally; same methodology as children. The new methodology implemented involved the oral administration of the experiment without changing the items or adding pictures for children. Following a different methodology with both children and adults could help us check the validity of each methodology and dissociate possible effects of written and/or oral administration of the experiment.

The first child (P5;8) aged 5;8 received the CG – SMG order of presentation as stimuli and the second child (P5;6) aged 5;6 received the SMG – CG order of presentation as stimuli. Both children produced the target placement for each block, but not at ceiling percentages like adults in both oral and written experiment (see Table 4-5 below).

An important observation is that a greater deviation from the target is found in the CG block irrespective of the order of presentation for both adults and children. As depicted in Table 4-5 below, children unlike adults produced some DPs, as in (9) below, and 2 verbs alone without a clitic.

- (9) Efan tin tasinopit^ha.
 ate-3SG the pastry.ACC
 '(S/he) ate the pastry.'

Both children showed a greater variation in their production of clitic placement when compared to adults in both the oral and written

experiment. Accordingly, children's target grammar seems to be affected by both lexical choices, i.e. verbs and nouns, and syntactic choices, i.e. different word orders.

Table 4-5: Different methodology

Order of Presentation	Participant	CG		SMG		Other
		PreV	PostV	PreV	PostV	
CG-SMG	P5;8	2	5	7	1	1 DP
SMG-CG	P5;6	3	4	6	0	1 DP 2 V
Total		5	9	13	1	4
CG-SMG	P51	0	8	8	0	0
	P29	0	8	8	0	0
	P25	0	8	8	0	0
	P45	0	8	7	1	0
	P28	0	8	8	0	0
Total		0	40	39	1	0
SMG-CG	P67	1	7	8	0	0
	P55	1	7	8	0	0
	P60	2	6	8	0	0
	P28	0	8	8	0	0
	P33	0	8	8	0	0
Total		4	36	40	0	0

Unfortunately, as already pointed out above it is not clear whether the one or both levels affect children's clitic production; this will be analyzed in more detail in the following section. We could though assume that children's target grammar with respect to clitic placement is indeed CG-like, hence, post-verbal; deviating from the most *xorkatika*, the L, and CG-like forms to the other side of the continuum which is the H, that is as SMG like as CG can be.

6. Outlook

The present work dealt with the investigation of clitic placement patterns in adult CG, for which pre- or post-verbal clitic placement varies across syntactic environments. The focus was on adult language, since previous studies on the acquisition of clitic placement in *because*-clauses revealed mixed placement patterns for the respective control groups. This study offers some first insights in relation to whether clitic placement in

experimental settings is a matter of lexical and syntactic stimulation. In this sense, clitic placement can be considered as a consequence of syntactic and lexical priming available in (non-)experimental settings, especially in the diglossic context of Cyprus, where choice of using either variety determines grammar use. These results and priming effects are subject to certain factors that relate to the presentation of the experimental stimuli. The importance of these factors could be evaluated in a follow-up study that would use the same elicitation technique, but with a different presentation of the material. For instance, a different presentation of the test items could be utilized instead; more specifically, a mixed model for across variety distribution, that is, language specific items presented randomized and not in blocks, so as to see whether priming of one or two items of the same variety would trigger the respective target placement.

Another possible change in future steps of this research is the following: test stimuli could involve mixed input *within* test structures. For example, test structures where the verb is CG-specific, but the rest (nouns/syntax) is SMG (and vice versa) in order to see whether the priming effects that we observe here are more dependent on lexical than on syntactic stimulation or a result of the combination of both.

Moreover, the presentation of the material might play a role. There are certain issues related to the presentation of the experiment through an online survey tool. For instance, we could not control over (a) participants' sex (M/F), (b) sociolinguistic aspects of participants' background (specific information regarding education mainly and place of residence which could be an issue given the heterogeneity of CG), and (c) participants' specific age. The majority of our participants are of a young age, due to the fact that the study was presented online and advertised through social networking sites (i.e. Facebook), which at least in Cyprus is in use mostly by younger ages.

All in all, the material used in the present experiment provides a basis for future research, which once modified in certain directions, can offer additional insights into the status of what counts as target grammar in the acquisition of clitic placement in bilectal Cyprus.

References

- Armosti, S., M. Katsoyannou, K. Christodoulou, and C. Themistocleous (2011). Greek Cypriots writing Cypriot Greek: Tendencies in the written representation of postalveolar consonants. Paper presented at the 10th International Conference of Greek Linguistics, Komotini.
- Contossopoulos, N. (2000). *Διάλεκτοι και Ιδιόματα της Νέας Ελληνικής*

- [Dialects and Idioms of Modern Greek]. Athens: Grigoris.
- Grohmann, K.K. (2011). Some directions for the systematic investigation of the acquisition of Cypriot Greek: A new perspective on production abilities from object clitic placement. In E. Rinke and T. Kupisch (eds.), *The Development of Grammar: Language Acquisition and Diachronic Change*. Amsterdam: John Benjamins, pp. 179-204.
- Grohmann, K.K. and E. Leivada (in press). Language acquisition in bilectal environments: Competing motivations, metalinguistic awareness, and the socio-syntax of development hypothesis. In M. Katerbow and G. de Vogelaer (eds.), *Variation in Language Acquisition*. Amsterdam: John Benjamins.
- Grohmann, K.K. and E. Leivada (2013). Lightverbhood in child language: Evidence from Cypriot Greek. In E. Blom, J. Verhagen, and I. van de Craats (eds.), *Dummy Auxiliaries in First and Second Language Acquisition*. Berlin: De Gruyter Mouton, pp. 141-170.
- Grohmann, K.K. and E. Leivada (2012). Interface ingredients of dialect design: Bi-X, Socio-Syntax of Development, and the grammar of Cypriot Greek. In A.M. Di Sciullo (ed.). *Towards a Biolinguistic Understanding of Grammar*. Amsterdam: John Benjamins, pp. 239-262.
- Grohmann, K.K., E. Theodorou, N. Pavlou, E. Leivada, E. Papadopoulou, and S. Martínez-Ferreiro (2012). The development of object clitic placement in Cypriot Greek and the Romance connection. In S. Ferré, P. Prévost, L. Tuller, and R. Zebib (eds.), *Selected Proceedings of the Romance Turn IV Workshop on the Acquisition of Romance Languages*. Newcastle: Cambridge Scholars Publishing, pp. 128-152.
- Ioannidou, E. (2002). *This ain't my real language, miss*: On language and ethnic identity among Greek Cypriot students. PhD dissertation, University of Southampton.
- Ioannidou, E. (2007). *This ain't my real language, miss*: The use of the Cypriot Dialect and Standard Modern Greek in a typical classroom interaction. In A. Papapavlou and P. Pavlou (eds.). *Sociolinguistic and Pedagogical Dimensions of Dialects in Education*. Newcastle: Cambridge Scholars Publishing, pp. 165-193.
- Leivada, E., E. Papadopoulou, and N. Pavlou (2013). The gray area of acceptability judgments: Clefts and exhaustivity in Cypriot Greek. In K.E. Ihemere (ed.), *Language Contact: A Multidimensional Perspective*. Newcastle: Cambridge Scholars Publishing, pp. 59-86.
- Leivada, E., M. Kambanaros, and K.K. Grohmann (2012). Evaluating teachers' grammatical competence in dialect and standard language. Poster presented at the conference on Bilingual and Multilingual

- Interaction, Bangor University.
- Leivada, E., P. Mavroudi, and A. Epistithiou (2010). Metalanguage or bidialectism? Acquisition of clitic placement by Hellenic Greeks, Greek Cypriots and binationalals in the diglossic context of Cyprus. In A. Botinis (ed.), *Proceedings of the 3rd ISCA Workshop ExLing 2010*. Athens: University of Athens, pp. 97-100.
- Neokleous, T. (2013). L1 acquisition of Cypriot Greek pronominal clitics. PhD dissertation, University of Cambridge.
- Papadopoulou, E. (2013). Acquisition of *wh*-questions: Evidence from Cypriot Greek. PhD dissertation, University of Essex, Colchester.
- Papapavlou, A. (2001). Mind your speech: Language attitudes in Cyprus. *Journal of Multilingual and Multicultural Development* 22: 491-501.
- Pavlou, P. and N. Christodoulou (2001). Bidialectism in Cyprus and its impact on the teaching of Greek as a foreign language. *International Journal of Applied Linguistics* 11: 75-91.
- Pavlou, P. and C. Fousias (2005). The use of dialect in the primary classroom with particular emphasis on the influence of school subject on dialect use. Paper presented at the Conference on Dialects in Education, University of Cyprus, Nicosia.
- Petinou, K. and A. Terzi (2002). Clitic misplacement among normally developing children and children with specific language impairment and the status of Infl heads. *Language Acquisition* 10: 1-28.
- Plunkett, B. and N. Pavlou (2011). Interpretation of ambiguous *wh*-questions in Cypriot Greek and French. Paper presented at the Workshop Syntactic Variation, Utrecht Institute of Linguistics-OTS.
- Terzi, A. (1999). Cypriot Greek clitics and their positioning restrictions. In A. Alexiadou, G. Horrocks, and M. Stavrou (eds.), *Studies in Greek Syntax*. Dordrecht: Kluwer, pp. 227-240.
- Tsiplakou S. (2007). Switching and mixing within and outside of a dialect continuum: The case of Greek-speaking Cyprus. *Polydromo*. [Retrieved from http://www.polydromo.gr/Yliko_epistimoniko2.asp.]
- Varlokosta, S., A. Belletti, J. Costa, N. Friedmann, A. Gavarró, K.K. Grohmann, M.T. Guasti, T. Tuller, et al. (to appear). A crosslinguistic study of the acquisition of pronoun and clitic production. *Language Acquisition*.
- Vassiliou, E. (1995) Cypriot as a VOS language. *La Trobe Working Papers in Linguistics* 8: 135-149.
- Yiakoumetti, A. (2003). Bidialectism and linguistic performance in the standard: The case of Cyprus. PhD dissertation, University of Cambridge.