Acceptability judgments in bilectal populations

Competition, gradience and socio-syntax

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This paper investigates the gradient nature of acceptability judgements and grammatical variants in the bilectal population of Cyprus, by comparatively discussing the findings of two recent experiments on (i) exhaustivity effects in Cypriot Greek clefts and *embu* 'it is that'-structures (Leivada et al. 2013) and (ii) clitic placement and how it is affected by lexical and syntactic stimulation (Papadopoulou et al. 2014). The analysis lays emphasis on the intra-dialectal variation observed across speakers' performance in both experiments. Variation is discussed in relation to socio-syntactic aspects of language use, such as (i) the existence of competing grammars (Tsiplakou 2007, in press) and competing motivations (Grohmann & Leivada 2012, to appear) in bilectal environments such as the one in Cyprus, (ii) the notion of gradience existent within a dialect–standard continuum (e.g. Cornips 2006 for Dutch, Leivada et al. 2013 for Greek), and (iii) syntactic/semantic factors that inform our participants' performance.

Keywords: acceptability judgments; clefts; clitics; Cypriot Greek; gradience; *embu*; exhaustivity; competing grammars

1. Introduction

Performance in experimental settings can be affected by a variety of factors. One of them is the notion of gradience that exists once one focuses on closely related varieties. Gradience boils down to the fact that grammatical variants often appear with blurred edges and give rise to gradient phenomena in grammar (Bolinger 1961a, b) and this affects speakers' judgments, even more so in bilectal environments where the standard and the non-standard variety are mediated by many other varieties that exist on a linguistic continuum. Since Chomsky (1955), linguists have often assumed varying degrees of acceptability of judgments, when asked to provide

information about the semantic value or syntactic well-formedness of an utterance. This being true for monolingual speakers/environments as well, the existence of a continuum where varieties do not always appear with discrete edges invests gradience with an additional layer of complexity.

The test stimuli consist of data from Cypriot Greek (CG) and the participants come from a linguistic setting that involves simultaneous use of two closely related varieties: CG and the standard variety, Standard Modern Greek (SMG). The goal of the paper is to shed light to the effects gradience may have on judgments about the syntactic well-formedness of cleft sentences (1) and *embu*-type cleft (2) structures, in addition to clitic placement (3). *Embu* consists of the 3rd person singular copula *en* '(it) is' (null subject language) and the complementizer *pu* 'that'. When it occurs in declarative structures, we subsequently translate it as 'it is that', while in English translations in interrogative contexts we invert it to 'is it that'.

(1)   En   o   andras   pu   pezi   mapʰa.
      is.3sg the.nom man.nom that playing.3sg football.acc
      'It is the man who plays football.'

(2)   O   andras   embu pezi   mapʰa.
      the.nom man.nom embu playing.3sg football.acc
      'It is the man who plays football.'

(3)   O   Yannis   θkʲavazi   to.
      the Yannis   reading.3sg it.cl
      'Yiannis is reading it.'

After describing the sociolinguistic background and status of each variety, we present the two phenomena under discussion: clefts and clitics in CG. In the experimental part, we will firstly provide a description of the results obtained from 258 adult Greek Cypriot participants completing the first three stories of the Cypriot Greek Exhaustive (*Embu) Clefts experiment (henceforth, experiment 1; Leivada et al. 2013). The participants fall in two groups: (i) 204 participants that are bilectal in CG and Standard Modern Greek (group CG-SMG) and 54 participants that are bilingual in CG and English (group CG-Eng). The comparisons established between the two groups aim to investigate the differences between bilectal and bilingual populations in relation to gradience in acceptability judgments. The performance of the participants from both these groups is then compared to the total of 187 CG-SMG participants completing experiment 1, as described in Leivada et al. (2013). Section 4 will provide a description of 5 Greek Cypriot bilectal participants, who have completed both experiment 1 and Word Order Clitics in Greek (henceforth, experiment 2; Papadopoulou et al. 2014). Experiment 2 was designed to address priming effects and, more specifically, clitic placement in CG and how it is affected by lexical and syntactic stimulation. The comparisons provided in

Sections 3 and 4 will be discussed in Section 5 in relation to (i) competing grammars, (ii) gradience existent within a dialect–standard continuum and (iii) syntactic and/or semantic factors that might affect participants' performance and judgments in experimental settings.

2.   Background

This section first offers some background information in terms of the sociolinguistic status of the varieties discussed. A description of the two structures tested in Experiment 1 (i.e. clefts and *embu*-type clefts) is presented next. Last, this section provides a description of patterns of clitic placement in CG involved in Experiment 2.

2.1   The sociolinguistic status of CG

CG is the variety of Modern Greek spoken in the Republic of Cyprus. It has been frequently described as a dialect of Modern Greek and, more specifically, classified as a southeastern dialect of Greek (Contossopoulos 2000). Since it lacks the status of an official language as well as the codification that official recognition entails, the use of CG co-exists with the use of the 'standard', officially recognized variety: SMG. In accordance with Article 3 of the constitution of the Republic of Cyprus, SMG, and not CG, is one of the two official languages (Standard Turkish being the other, although not in frequent use in the territories of the island from which the participants in our experiments were recruited). SMG is also the variety of Greek spoken in mainland Greece.

The implications of the simultaneous use of SMG and CG as well as the sociolinguistically 'low' status of the latter in relation to the former have been the focus in many studies (see, for example, Papapavlou 1998, Papapavlou & Pavlou 1998; Tsiplakou 2004). The different sociocultural values attached to each variety as well as the different registers that facilitate the use of the one variety instead of the other, affect the way these two varieties are eventually put in use, since there is a two-way relation between attitudes towards different varieties and language use. Exposure to SMG takes place through school instruction, some television programs, and a variety of social circumstances that involve some formality in terms of register. These are some of the reasons that have led Rowe and Grohmann (2013) to describe the "linguality' of Greek Cypriot speakers" as follows (p. 119): they are "bilectal [in] the local vernacular, the L variety (i.e. Cypriot Greek), and [in] the superposed official language, the H variety (Standard Modern Greek)". We thus refer to our 'monolingual' Greek Cypriot participants as *bilectal* in CG and SMG, employing the notion of (discrete) bilectalism (Rowe & Grohmann 2013).

2.2   Clefts and *embu*-type clefts in Cypriot Greek

Cypriot Greek employs cleft sentences similar to (1) and *embu*-type clefts similar to (2), repeated as (4) and (5) below.

(4)   En   o   andras   pu   pezi   map^{h}a.
       is.3sg the.nom man.nom   that playing.3sg football.acc
       'It is the man who plays football.'

(5)   O   andras   embu pezi   map^{h}a.
       the.nom man.nom   embu playing.3sg football.acc
       'It is the man who plays football.'

Clefts as discussed by Jespersen (1927, 1937) denote a definite DP which cannot be extended further to name the 'that' clause a relative clause. The focus here is on clefts' distribution with the exhaustivity condition. Grohmann et al. (2006) (see also, Gryllia & Lekakou 2006; Fotiou 2009; Agouraki 2010) argue that clefts are focus structures with a non-restrictive relative clause with a fronting of the focused constituent and embedding of a secondary clause introduced with *pu* 'that', as in (4) above. Moreover, it has been assumed that clefts in CG display exhaustivity properties (Kiss 1998), with the fronted constituent being exhausted with the relevant property given by the secondary clause. The exhaustive interpretation of (4) requires that it is only the man and not the woman, or two men, who is playing football. In the case that both the man and the woman have been playing football, (4) should be odd for the given context and example (6) should be produced instead of (4):

(6)   En   o   andras   tze   i
       is.3sg the.nom man.nom   and   the.nom

       γineka   pu   pezun   map^{h}a.
       woman.nom   that play.3pl football.acc
       'It is the man and the woman who play football.'

Embu-type clefts as in (5) are also employed in CG. Regarding the status of *embu* '(it-)is-(it-)that', there are two hypotheses with respect to the underlying structure of this particle. Grohmann et al. (2006) argued that *embu* is an underlying form of a cleft, by assuming a more complex structure in a bi-clausal form. A different, somewhat simpler, account is offered in Papadopoulou (2014). According to this analysis, *embu* is a fossilized form of a more complex structure that occupies a focus position and acts as a focus marker. While different theoretical arguments favour different approaches, experimental results reported in Leivada et al. (2013) suggest that the analysis offered in Papadopoulou (2014).

    The complex interplay behind the co-existence of SMG and CG might also influence the way native speakers of CG adjust their linguistic performance in

certain tasks and registers and, in the long run, might play a role in how they modify some aspects of their native variety (CG) that are marked as heavily 'dialectal'. This modification takes place by resorting to linguistic choices that align them with the standard variety. For example, the interpretation of 'it is XP that YP' clefts in Leivada et al. (2013), did not elicit an exhaustive interpretation across all participants, as expected following standard assumptions in the literature that deals with exhaustivity in clefts. As a matter of fact, the results revealed wide inter-speaker variation and a change towards a non-exhaustive reading of CG clefts (Pavlou et al. 2013). This inter-speaker variability could be the effect of language contact with SMG, which does not have either *bona fide* or the *embu*-type clefts.

2.3   Clitics in cypriot Greek

One of the (morpho)syntactic differences between SMG and CG relates to clitic placement. Placement patterns are the same across the two varieties in some environments (e.g. imperatives and negation), but not in others (e.g. indicatives). Direct object clitic placement in indicatives requires enclisis (7) in CG and proclisis (8) in SMG.

(7)   O   Yannis θkʲavazi to.
       the Yannis reads   it.CL
       'Yannis is reading it.'

(8)   O   Yannis to   ðʝavazi. [SMG]
       the Yannis it.CL reads
       'Yannis is reading it.'

Acquisition of clitic production and placement is probably the most investigated phenomenon of the CG grammar and the focus of many recent studies (Petinou & Terzi 2002; Grohmann 2011; Grohmann et al. 2012; Neokleous 2013; Agathocleous et al. 2014; Grohmann 2014). In one such study, Papadopoulou et al. (2014) approached the issue from the perspective of lexico-syntactic stimulation factors and possible carry-over effects across test stimuli. Among other things, their findings suggested that lexical stimulation affects clitic placement with CG-specific and/or SMG-specific verbs triggering enclisis and proclisis respectively.

3.   The present study

This section introduces the design of Experiment 1, which aimed to investigate exhaustivity in clefts based on the performance of 258 adults in an on-line experiment. Leivada et al. (2013) report only on 187 (bilectal) Greek Cypriots, all adult native speakers of CG, who have completed the experiment. In this section,

we report on previously unaddressed results. More specifically, we will present results obtained from two language groups and two age groups: (i) Greek Cypriot bilectal (CG-SMG) and (ii) bilingual (CG-Eng) speakers, aged 18–30 and 30–45. Responses gathered from the first three stories of Experiment 1 are presented below, while the full experiment, as presented in Leivada et al. (2013), includes six stories.

3.1   Participants

204 Greek Cypriot adults, native speakers of CG (CG-SMG) and 54 Greek Cypriot adults that are bilingual[1] in CG and English (CG-Eng) have participated in the study (Table 1).

Table 1. Participants

Language group	Age range	Number	Gender		Education		
			Male	*Female*	*Lyceum*	*College*	*University*
CG-SMG	18–30	168	41	127	55	6	107
	30–45	36	11	25	4	2	30
CG-Eng	18–30	48	8	40	14	4	30
	30–45	6	2	4	1	1	4

Participants were divided in two age groups: (i) 18–30 and (ii) 30–45. 168 participants were between 18–30 years of age and 36 between 30–45 years of age. The majority of the participants was female and had higher education (university/college). The same pattern is observed for the CG-Eng group with 48 participants (8 male and 40 female) in the younger group (18–30) and only 6 (2 male and 4 female) in the older group (30–45).

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1.   Since the experiment was an on-line experiment and it initially aimed at collecting data from bilectal CG speakers, there were only two questions in the introduction of the experiment verifying whether participants were monolingual-bilectal or bilingual. If participants were bilingual, they were then asked to specify their native languages. No further information was gathered with respect to time of onset and/or exposure to both languages. Despite the absence of such important information on the bilingual population discussed here, the uniformity in their replies suggests that time of onset and/or (non-) simultaneous bilingualism does not have an impact that would affect their judgments.

3.2   Materials & Procedure

The task involved a total of 40 test items and 12 controls, divided in three object (O) and three subject (S) stories, across three pairs of verbs, agents and nouns. The six stories involved *embu* structures and/or cleft structures, such as the ones given in (9) and (10) respectively, resulting in some stories having 5 test items and 2 controls and others having 10 test items and 2 controls (Figure 1).

(9)   O   andras   embu pezi   map^{h}a.
      the.NOM   man.NOM   embu playing.3SG   football.ACC
      'It is the man who plays football.'

(10) En   o   andras   pu   pezi   map^{h}a.
      is.3SG   the.NOM   man.NOM   that   playing.3SG   football.ACC
      'It is the man who plays football.'

The task was administered on-line. The instructions given at the beginning of the task were in CG. The lack of official codification led to the presentation of the test items in the Latin alphabet, assuming the simplest phonological adaptation (for a more detailed discussion, see Leivada et al. 2013). Investigating preference,

Story	S/O	V/N Pair	Embu/ Cleft	Items											
1	O	1	E	1	2	C_T	3	4	C_F	5					
2	S	3	C + E	1_C	4	2_C	C_F	5_C	1	2	3_C	C_T	5	3	4_C
3	O	2	C	3_C	C_T	2_C	1_C	C_F	5_C	4_C					
4	S	1	E + C	1	4_C	2	5	1_C	C_F	2_C	3	5_C	3_C	C_T	4
5	O	3	C	1_C	C_T	2_C	3_C	C_F	4_C	5_C					
6	S	2	E	3	2	C_T	1	5	C_F	4					

S = Subject story
O = Object story
C_T = True control (referring to 3rd noun)
C_F = False control (referring to 4th noun)
1 = embu (non exhaustive interpretation with 1st noun)
2 = embu (non exhaustive interpretation with 1st noun & 2nd noun)
3 = embu exhaustivity (all 3 nouns)
4 = embu (non exhaustive interpretation with 2nd noun & 3rd noun)
5 = embu (non exhaustive interpretation with 2nd noun)
1_C = cleft (non exhaustive interpretation with 1st noun)
2_C = cleft (non exhaustive interpretation with 1st noun & 2nd noun)
3_C = cleft exhaustivity (all 3 nouns)
4_C = cleft (non exhaustive interpretation with 2nd noun & 3rd noun)
5_C = cleft (non exhaustive interpretation with 2nd noun)

(Table 2, Leivada et al. 2013)

Figure 1. Randomization

rather than only grammar in the interpretation of the attested structures, we were interested in the spontaneous reaction to the story, hence participants were not allowed to change their answer once submitting a response to a question and moving to the next one. The possible answers were: 'correct according to the story', 'wrong according to the story', and 'I don't know'. Restrictions to changing a submitted answer were considered necessary, since subsequent test items could have triggered a possibly different answer to the test items already presented, due to priming/stimulation effects.

An example of a story as presented to participants translated in English can be found in Figure 2 below. This is the first story provided with *embu*.

> Lena had a ball, a pencil case, a teddy bear and a box. She threw the ball in the dustbin. She threw the pencil case in the dustbin. She threw the teddy bear in the dustbin.
>
> 1.   The ball (embu) Lena threw in the dustbin.
> 2.   The ball and the pencil case (embu) Lena threw in the dustbin.
> 3.   The teddy bear Lena threw in the dustbin.
> 4.   The ball, the pencil case and the teddy bear (embu) Lena threw in the dustbin.
> 5.   The pencil case and the teddy bear (embu) Lena threw in the dustbin.
> 6.   The box Lena threw in the dustbin.
> 7.   The pencil case (embu) Lena threw in the dustbin.

Figure 2. Story 1

Participants were given the story (first two lines) and then each numbered option, one at a time. They were not allowed to trace back and change any answers, allowing us to observe spontaneous responses to each item rather than a comparison between all possible conditions. In this paper, we present results only for the first three stories; namely, an object *embu* story (story 1), a subject cleft and e*mbu* story (story 2) and an object cleft story (story 3).

3.3   Results

This section provides a description and analysis of the results obtained by 204 Greek Cypriot monolingual adults (CG-SMG) and 54 CG-English bilinguals (CG-Eng). Once presented, these results are compared to the results of the 187 participants that are reported in Leivada et al. (2013). All scores correspond to "correct according to the story" answers given by the participants. Results were re-coded depending on the number of nouns involved in the action (the relevant nouns are underlined in the examples below). In particular, when one noun was involved, the item was named *embu* 1 (11) or cleft 1, when two nouns were mentioned, the name was *embu* 2 (12) or cleft 2 and when three nouns were used, it was referred to as *embu* 3 (13) and cleft 3.

(11)   <u>To</u>   <u>psomin</u>   embu efaen   o   Yannis.
       the.ACC bread.ACC embu ate.3SG the.NOM John.NOM
       'It is the bread that John ate.'

(12)   <u>To</u>   <u>psomin</u>   tze <u>to</u>   <u>tirin</u>   embu efaen
       the.ACC bread.ACC and the.ACC cheese.ACC embu ate.3SG
       o   Yannis.
       the.NOM John.NOM
       'It is the bread and the cheese that John ate.'

(13)   <u>To</u>   <u>psomin</u>,   <u>to</u>   <u>tirin</u>   tze <u>tin</u>   <u>ndomata</u>   embu
       the.ACC bread.ACC the.ACC cheese.ACC and the.ACC tomato.ACC embu

       efaen   o   Yannis.
       ate.3SG the.NOM John.NOM
       'It is the bread, the cheese and the tomato that John ate.'

The first story of the experiment (Figure 2) included only *embu* items in order to test for participants' unbiased acceptability judgments, free from any priming effects. All CG-SMG participants have accepted *embu* 1 items as 'correct according to the story' (i.e. thus allowing for a non-exhaustive interpretation of *embu*) at a very high level with the 18–30 group having higher acceptance percentage than the 18–30 group in Leivada et al. (2013). The 30–45 group did not show the same pattern, since the CG-SMG group showed lower acceptance percentages for all items except *embu* 3 when compared to both the 30–45 group in Leivada et al. (2013) and the 18–30 CG-SMG group. Both age groups of the CG-Eng language group show higher acceptance for all items in comparison to the CG-SMG group and the results in Leivada et al. (2013). Particularly interesting is the performance of the CG-Eng 30–45 group, which is at ceiling for all items.

Table 2. Story 1 – Correct According to the story (%)

	CG-SMG (204)		Leivada et al. (2013)		CG-Eng (54)	
	18–30	30–45	18–30	30–45	18–30	30–45
Embu 1	60.1	52.8	58.8	56	68.8	100
Embu 2	46.4	41.7	44.6	44	56.3	100
Embu 3	94.6	100	93.2	96	93.8	100
Embu 2	41.1	33.3	38.5	44	54.2	100
Embu 1	42.3	41.7	40.5	44	54.2	100

This difference shows a dissociation between the language groups but also between the two age groups described in the experiment. *Embu* 3 is the only

test item that is accepted nearly at ceiling by all groups, indicating favor towards exhaustive interpretations. None of the differences across age groups and items were statistically verified after performing a two-sample T-test between percents, except for the comparison between CG-SMG 30–45 and CG-Eng 30–45 (for *embu* 1 t(256) = 6.377 and p < 0.0001, for *embu* 2 t(256) = 7.642 and p < 0.0001, for *embu* 1 t(256) = 8.730 and p < 0.0001, for *embu* 2 t(256) = 7.642 and p < 0.0001).

When participants were introduced to story 2 (Table 3), which was an *embu* and cleft story, they behaved differently than in story 1. Specifically, CG-SMG across both age groups accepted the test items as 'correct according to the story' to a lesser extent than what it is reported in Leivada et al. (2013). Both CG-Eng groups have once again accepted all test items as being true more than both CG-SMG and Leivada et al. (2013). Again the CG-Eng 30–45 group accepted all items at ceiling. None of the differences were statistically verified after performing a two-sample T-test between percents except again for the comparison of *embu* 2 (t(40) = 3.908 p = 0.0004), cleft 2 (t(40) = 3.665 p = 0,0007), cleft 1 (t(40) = 3.665 p = 0.0007), *embu* 2 (t(40) = 3.665 p = 0.0007), and cleft 2 (t(40) = 3.665 p = 0.0007) between CG-SMG 30–45 and CG-Eng 30–45 which were marginally significant.

Table 3. Story 2 – Correct according to the story (%)

	CG-SMG (204)		Leivada et al. (2013)		CG-Eng (54)	
	18–30	30–45	18–30	30–45	18–30	30–45
Cleft 1	29	26.7	32.4	32	44.4	100
Embu 2	23.7	20	27	28	41.7	100
Cleft 2	23.7	23.3	29.1	28	44.4	100
Cleft 1	252	23.3	30.4	32	47.2	100
Embu 1	26	26.7	29.7	36	47.2	100
Embu 2	23.7	23.3	27	32	38.9	100
Cleft 3	92.4	96.7	93.9	92	94.4	100
Embu 1	24.4	30	27.7	40	36.1	100
Embu 3	90.8	83.3	91.9	84	91.7	100
Cleft 2	23.7	23.3	28.4	32	38.9	100

The same pattern that was found in story 2 was also observed for story 3 (Table 4), which included only cleft items. Both CG-SMG age groups accepted less all items as being 'correct according to the story' when compared to Leivada et al. (2013) and much less when compared to CG-Eng. None of the differences were statistically verified after performing a two-sample T-test between percents except for the comparison of cleft 2 (t(40) = 3.854 p = 0.0004), cleft 1(t(40) = 3.854

p = 0.0004), cleft 1 (t(40) = 3.854 p = 0.0004), cleft 2 (t(40) = 3.854 p = 0.0004), between CG-SMG 30–45 and CG-Eng 30–45 which were marginally significant.

Table 4. Story 3 – Correct according to the story (%)

	CG-SMG (204)		Leivada et al. (2013)		CG-Eng (54)	
	18–30	**30–45**	**18–30**	**30–45**	**18–30**	**30–45**
Cleft 3	94.7	96.6	95.9	96	100	100
Cleft 2	23	20.7	25.7	32	41.2	100
Cleft 1	22.1	20.7	25.7	32	44.1	100
Cleft 1	26.5	20.7	25.7	32	44.1	100
Cleft 2	23.9	20.7	25.7	32	41.2	100

CG-SMG and results reported in Leivada et al. (2013) have similar rates of accepting the items as true according to the story despite the small differences in the percentages. In Leivada et al. (2013), the 30–45 group shows higher acceptance for all items in all three stories described above. On the contrary, CG-SMG 30–45 accepted the items less than all other (age and language) groups in stories 1 and 3, whereas it accepted as true more than CG-SMG 18–30 only a few items in story 2.

CG-Eng group differs greatly from CG-SMG and Leivada et al. (2013), as reported in Table 4 above, across both age groups and in all three stories. Specifically, participants in the CG-Eng 30–45 group accept at 100% all items as correct according to the story. CG-Eng 18–30 accept at a higher rate the test items as being correct, when compared to both CG-SMG age groups and the two groups in Leivada et al. (2013); except one *embu* 1 item in story 2.

Before addressing the implications of the results presented for (i) the existence of competing grammars and motivations (ii) the notion of gradience and (iii) other syntactic/semantic factors possibly affecting participants' performance, we will turn to a detailed description of the performance of five participants in a different experiment. Adding insights form a second experiment that investigates a different grammatical phenomenon will put the findings obtained through experiment 1 in the right perspective, allowing for more solid conclusions to be drawn.

4.   Experiment 2

This section describes the performance of five participants on two tasks, namely experiment 1 described above and Word Order Clitics in Greek (experiment 2; Papadopoulou et al. 2014). Observing the performance of these subjects in a

different experiment is useful in establishing comparisons through using a tool that was designed to see priming effects, precisely by drawing a clear distinction between the varieties under discussion across test blocks.

4.1 Participants

Five CG-SMG bilectals have completed both experiment 1 and experiment 2. All participants were between 24–38 years of age and have all attended university (see Table 5).

Table 5. Participants

Participant	Age	Gender	Education		
		M/F	*Lyceum*	*College*	*University*
PA1	38	M	–	–	1
PA2	25	M	–	–	1
PA3	28	F	–	–	1
PA4	24	F	–	–	1
PA5	24	F	–	–	1

PA = Participant1…

4.2 Materials & Procedure

Experiment 2 aimed at shedding light on stimulation effects in relation to the choice of proclisis or enclisis in CG indicatives. The material involved two blocks of stimuli; these blocks were specific to each variety, CG and SMG. This experiment was designed in a way that aimed to contrast the same verb meaning with the use of two different lexical items in CG and SMG. This was accomplished first through the use of CG-specific nouns in the CG blocks, but also through ensuring that the verb roots were, if not completely different across the two varieties/blocks pertaining to each variety, at least not identical, as shown in (14)–(15).

(14) a. I   Maria epit^{h}osen   tin kashian.   [CG block]
           the Maria pressed down.3SG the box.ACC
           'Maria pressed down the box.'

      b. Indambu ekamen tin kashian i   Maria?
           what   do.3SG   the box.ACC the Maria
           'What did Maria do to the box?'

(15) a. I   Maria plakose   tin kuta.   [SMG block]
           the Maria pressed down.3SG the box.ACC
           'Maria pressed down the box.'

b. Ti   ekane i   Maria tin kuta?
*what do.3sG the Maria the box.*ACC
'What did Maria do to the box?'

The syntax of the test questions also involved a contrast between the two varieties, with CG-specific items being presented in VOS order (following Vassiliou 1995 and Plunkett & Pavlou 2011 in considering VOS as the unmarked word order in CG and SMG items in VSO order). As in the case of Experiment 1, the test items were presented in the Latin alphabet, assuming the simplest phonological adaptation.

4.3   Results

Participants' performance in Experiment 1 is presented in Tables 6–7. Items are presented as in Section 3.2 with each story presented individually and the items in order of presentation.

As expected, all participants have accepted *embu* 3 as being correct according to the story in story 1 (Table 6). The oldest participant, PA1, and the youngest participant, PA5, accepted all items as being correct according to the story. PA3 and PA4 did not accept any of the items as being correct except *embu* 3 and PA2 accepted all items except one instance of *embu* 2 which was following *embu* 3.

Table 6. Story 1

Items	PA1	PA2	PA3	PA4	PA5
Embu 1	1	1	2	2	1
Embu 2	1	1	2	2	1
Embu 3	1	1	1	1	1
Embu 2	1	2	2	2	1
Embu 1	1	1	2	2	1

1 = correct according to the story
2 = wrong according to the story

Unlike story 1, in story 2 (Table 7) PA1-PA4 accepted only cleft 3 and *embu* 3 as being correct according to the story whereas, PA5 has accepted all items as being correct. PA5 is the youngest participant and this could explain the dissociation between this participant and the performance of the rest if the claim put forth for a change in progress with respect to the CG clefts is on the right track (Leivada et al. 2013).

All participants behaved alike in story 3 (Table 8). They all accepted cleft 3 as being correct according to the story and all other items as being incorrect. Input of

cleft structures in story 2 seems to affect participants' item acceptance. All participants have accepted as expected both *embu* 3 and cleft 3 as being correct according to the story. PA5 is the only participant who has accepted all items in stories 1
and 2 as being correct but did not accept any cleft 1 or 2 in story 3.

Table 7. Story 2

Items	PA1	PA2	PA3	PA4	PA5
Cleft 1	2	2	2	2	1
Embu 2	2	2	2	2	1
Cleft 2	2	2	2	2	1
Cleft 1	2	2	2	2	1
Embu 1	2	2	2	2	1
Embu 2	2	2	2	2	1
Cleft 3	1	1	1	1	1
Embu 1	2	2	2	2	1
Embu 3	1	1	1	1	1
Cleft 2	2	2	2	2	1

1 = correct according to the story
2 = incorrect according to the story

Table 8. Story 3

Items	PA1	PA2	PA3	PA4	PA5
Cleft 3	1	1	1	1	1
Cleft 2	2	2	2	2	2
Cleft 1	2	2	2	2	2
Cleft 1	2	2	2	2	2
Cleft 2	2	2	2	2	2

1 = correct according to the story
2 = incorrect according to the story

Participants' performance in Experiment 2 (Table 9) was as expected for the
CG-block, with all items receiving post-verbal placement. PA1 and PA3 reverted
to pre-verbal placement in the SMG-block, whereas PA2, PA4 and PA5 produced
post-verbal clitics for the SMG-block. PA4's post-verbal clitics were preceded
by the SMG target verb. PA2 and PA5 produced the CG-specific equivalent followed by enclisis. Comparing participants' performance in both tasks it is clear
that there is no clear consensus in CG with respect to exhaustivity in clefts and
clitic placement in indicatives as both our tasks have elicited mixed responses that

often combine elements from both varieties, whether this relates to having a CG cleft with a non-exhaustive reading or with producing proclisis in a test item that involves CG-specific items, hence it would normally require enclisis.

Table 9. Experiment 2

	CG-Block		SMG-Block	
	Pre-V	Post-V	Pre-V	Post-V
PA1	0	8	8	0
PA2	0	8	0	8
PA3	0	8	8	0
PA4	0	8	0	8*
PA5	0	8	0	8

It is apparent that input affects participants' performance (acceptance in Experiment 1 and production in Experiment 2), but this is not the only factor that is worth highlighting when interpreting the findings of the two tasks. The existence of competing grammars and the gradient nature of the grammatical choices that pertain to these competing grammars should be taken into account when discussing CG and/or any other variety of Greek used in Cyprus, be it SMG or 'Cypriot Standard Greek' (Arvaniti 2006). A more detailed discussion follows in Section 5.

5.   Discussion

The main goal of this study was to investigate the gradient nature of acceptability judgements/grammatical variants on the basis of the results of two recent experiments on (i) exhaustivity effects in CG clefts and *embu*-structures (Leivada et al. 2013) and (ii) clitic placement and how it is affected by lexical and syntactic stimulation (Papadopoulou et al. 2014).

The findings of both the experiments suggest a good degree of intra-dialectal variation across speakers' judgments or performance. We suggest that this variation is explained in relation to socio-syntactic aspects of language use, such as (i) the implications of the existence of competing grammars (Tsiplakou 2007, in press), (ii) the notion of gradience existent within a dialect–standard continuum (e.g. Cornips 2006 for Standard and Heerlen Dutch, Leivada et al. 2013 for Standard and Cypriot Greek). Different syntactic/semantic factors such as the word order or the use of focus phrases in test stimuli may further

affect participants' performance. For example, the different degrees of exhaustivity elicited by the use of different exhaustive and non-exhaustive expressions (Wedgwood et al. 2006, Onea & Beaver 2011) play a role in the varying readings of exhaustivity in clefts.

The socio-syntactic aspects that affect language use can be subsumed under the Socio-Syntax of Development Hypothesis (Grohmann 2011). The starting point for defining those socio-syntactic aspects is given in Tsiplakou (2007), who discusses the linguistic continuum in Cyprus by offering a series of questions that need to be addressed in order to understand the two-fold nature of competition: *competing grammars* that arise as a result of the bilectal environment and *competing motivations* that enter the equation in the process of acquiring distinct, but still closely related, variants of the same phenomenon (such as the preverbal or postverbal placement of direct object clitics in SMG and CG indicatives respectively) across a range of different (morpho)syntactic environments (Grohmann & Leivada 2012, to appear).

The notion of gradience in linguistic choices is further complicated by the fact that the boundaries between the varieties under discussion are not clear-cut, but rather exist on a continuum. In this sense, it is not always easy to draw the line between the different intermediate varieties that are found on this continuum. The questions provided in Tsiplakou (2007) are linked precisely to the nature of competition in relation to the status of one of the two official varieties (i.e. SMG or Cypriot Standard Greek), since the non-standard variety is often deemed inappropriate to be used in certain registers: "How do acquisition factors enter the picture? And, finally, do such data allow us to make a case for competing grammars, and, if so, what is the precise nature of the competition?" (Tsiplakou 2007:25).

Our findings suggest that in bilectal populations such as the one under discussion, (i) gradience of grammatical variants, (ii) a two-fold competition between grammars and motivations and (iii) specific syntactic/semantic choices that are given as input in experimental settings and trigger priming effects may all affect the performance of adult participants. This observation entails that in such experimental settings it is not always easy to define what counts as 'target' in adult performance, hence the observed variation in judgments. While the factors that drive intra-speaker variation can shed some light on our understanding of the participants' performance, variation itself can be seen mainly at three levels in the presence of these data: (a) variation between the monolingual and bilingual groups, (b) variation between the age groups and (c) variation between the degrees of exhaustivity associated with particular structures, focusing on the findings of the first experiment.

Having compared two language groups, bilectals and bilinguals, and having seen that the CG-Eng group accepted at ceiling even the non-exhaustive examples,

this performance shows a different pattern than the one elicited by the CG-SMG group. It is rather unclear how the L2 interaction neutralized the exhaustivity requirement in those cases, while other speakers showed a judgment that favored an exhaustive listing of the items in question. Even if *embu* 3 was the only item that was accepted by both groups, this cannot suggest a distinction between the exhaustive sentences and the non-exhaustive ones for the CG-Eng group, since for them all the items were accepted as correct according to the story. A possible explanation could be that the interference of English entailed a smaller requirement of exhaustivity in the particular structures, something that can be confirmed only with further research in this language.

Second, variation between the age groups seems to be a first indication for language change in the specific phenomenon (Leivada et al. 2013). Generally in the CG-SMG group, speakers of the age 30–45 showed fewer acceptances of non-exhaustive examples throughout the experiment, which could suggest that exhaustivity is weakened as we continue on the timeline. Quite the opposite effect is observed in the CG-Eng group, where the age group of 30–45 shows full acceptance of even the non-exhaustive cases of the different structures given, while the youngest group follows the behaviour of the CG-SMG group. Again this does not allow us to draw very clear conclusions, but further research on the conditions of exhaustivity in English speakers of different ages may be able to address this issue in more detail.   Third, one can observe variation associated with the structures per se in experiment 1; namely, the *embu*-sentences and the clefts. Clefts showed fewer acceptances than *embu*-sentence in non-exhaustive cases showing that they indeed carry an exhaustive requirement, as often suggested in many studies. However, the small percentages observed in this study were not expected and provide support for the claim of intra-dialectal variation and absence of clear-cut judgments between speakers. The examples with *embu* were accepted in a greater degree in the non-exhaustive test items, but still with the exception of the very first story all the other percentages are quite low, an effect that could be attributed to the introduction of clefts in the experiment.

These three levels of variation along with the results from the clitics experiment discussed above support the idea of gradience and the competition in grammar when the linguistic setting involves two closely related languages.

6.   Conclusion

This paper looked at variation in exhaustivity effects in Cypriot Greek and compared the relevant findings with results obtained through another experiment related to clitic placement. The aim was to bring into discussion a comparison

of the performance of the participants across the two tasks in order to show that there is no clear-cut answer to exhaustivity preference or clitic placement given that tasks combined elements from two varieties. Performance was shown to be subject to stimulation effects: the two tasks showed that when speakers have access to closely related grammars, input affects their performance. The gradient nature of the grammatical choices also plays a role, giving rise to mixed performance that draws elements from both grammars.

References

Agathocleous, Marina, Alexandra Charalambous, Elena Papadopoulou & Kleanthes K. Grohmann. 2014. The role of the social environment on linguistic development: A view from Cypriot Greek clitic placement. In Kleanthes K. Grohmann & Theoni Neokleous (eds.), *Developments in the acquisition of clitics*, 41–86. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Agouraki, Yoryia. 2010. It-clefts and stressed operators in the preverbal field of Cypriot Greek. *Lingua* 120. 527–554. DOI: 10.1016/j.lingua.2008.10.011

Arvaniti, Amalia. 2006. Linguistic practices in Cyprus and the emergence of Cypriot standard Greek. *San Diego Linguistic Papers* 2. 1–25. [Reprinted in *Mediterranean Language Review* 17, 15–45, 2010.]

Bolinger, Dwight L. 1961a. *Generality, gradience and the all-or-none*. The Hague: Mouton.

Bolinger, Dwight L. 1961b. Syntactic blends and other matters. *Language* 37. 366–381. DOI: 10.2307/411078

Chomsky, Noam. 1955. The logical structure of linguistic theory. Ms., Harvard University/ Massachusetts Institute of Technology. [Published in part as *The Logical Structure of Linguistic Theory*, New York: Plenum, 1975.]

Contossopoulos, Nikolaos. 2000. *Διάλεκτοι και Ιδιώματα της Νέας Ελληνικής* [Dialects and Varieties of Modern Greek]. Athens: Grigoris.

Cornips, Leonie. 2006. Intermediate syntactic variants in a dialect-standard speech repertoire and relative acceptability. In Gisbert Fanselow, Caroline Féry, Ralf Vogel & Matthias Schlesewsky (eds.), *Gradience in grammar: Generative perspectives*, 85–105. Oxford: Oxford University Press.

Fotiou, Constantina. 2009. Focusing strategies in Cypriot Greek. In Kleanthes K. Grohmann & Phoevos Panagiotidis (eds.), *Selected papers from the 2006 cyprus syntaxfest*, 63–91. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Grohmann, Kleanthes 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 Esther Rinke & Tanja Kupisch (eds.), The development of grammar: Language acquisition and diachronic change, 179–203. Amsterdam: John Benjamins.

Grohmann, Kleanthes K. & Evelina Leivada. 2012. Interface ingredients of dialect design: Bi-x, sociosyntax of development, and the grammar of Cypriot Greek. In Anna Maria Di Sciullo (ed.), Towards a biolinguistic understanding of grammar, 239–262. Amsterdam: John Benjamins.

Grohmann, Kleanthes K., Eleni Theodorou, Natalia Pavlou, Evelina Leivada, Elena Papadopoulou & Silvia Martínez-Ferreiro. 2012. The development of object clitic placement in Cypriot Greek and the Romance connection. In Sabrine Ferré, Philippe Prévost, Laura Tuller, and Rasha Zebib (eds.), Selected Proceedings of the Romance Turn IV Workshop on the Acquisition of Romance Languages, 128–152. Newcastle: Cambridge Scholars Publishing.

Grohmann, Kleanthes K. & Evelina Leivada. To appear. Language acquisition in bilectal environments: Competing motivations, metalinguistic awareness, and the socio-syntax of development hypothesis. In Matthias Katerbow & Gunther de Vogelaer (eds.), Variation in language acquisition. Amsterdam: John Benjamins.

Grohmann, Kleanthes K., Phoevos Panagiotidis & Stavroula Tsiplakou. 2006. Properties of *wh*-question formation in Cypriot Greek. In Mark Janse, Brian Joseph & Angela Ralli (eds.), *Proceedings of the Second International Conference of Modern Greek Dialects and Linguistic Theory*, 83–98. Patra: University of Patras.

Gryllia, Stella & Marika Lekakou. 2006. Syntax reflects information structure: Evidence from Cypriot Greek. *Paper presented at the 27th Annual Meeting of the Department of Linguistics*, Aristotle University of Thessaloniki.

Jespersen, Otto. 1927. *A modern English grammar on historical principles, Part III, Syntax, vol. 2.* Heidelberg: Winter.

Jespersen, Otto. 1937. *Analytic syntax*. London: Allen and Unwin.

Kiss, Katalin É. 1998. Identificational focus versus information focus. *Language* 74. 245–273. DOI: 10.1353/lan.1998.0211

Leivada, Evelina, Elena Papadopoulou, & Natalia Pavlou. 2013. The gray area of acceptability judgments: Clefts and exhaustivity in Cypriot Greek. In Kelechukwu E. Ihemere (ed.), *Language contact: A multidimensional perspective*, 59–86. Newcastle-upon-Type: Cambridge Scholars Publishing.

Neokleous, Theoni. 2013. *L1 acquisition of Cypriot Greek pronominal clitics*. Ph.D. dissertation, University of Cambridge.

Onea, Edgar & David Beaver. 2011. Hungarian focus is not exhausted. In Ed Cormany, Satoshi Ito & David Lutz (eds.), *Proceedings of Semantics and Linguistic Theory* (*SALT*) 19. 342–359.

Papadopoulou, Elena. 2014. *Acquisition of wh-questions: Evidence from Cypriot Greek*. Doctoral dissertation, University of Essex, Colchester.

Papadopoulou, Elena, Evelina Leivada & Natalia Pavlou. 2014. Clitic placement in Cypriot Greek: A matter of lexical and syntactic stimulation? In Kleanthes K. Grohmann & Theoni Neokleous (eds.), *Developments in the acquisition of clitics*, 138–160. Newcastle-upon-Type: Cambridge Scholars Publishing.

Papapavlou, Andreas. 1998. Attitudes towards the Greek Cypriot dialect: Sociocultural implications. *International Journal of the Sociology of Language* 13. 15–28.

Papapavlou, Andreas & Pavlos Pavlou. 1998. A review of the sociolinguistic aspects of the Greek Cypriot dialect. *Journal of Multilingual and Multicultural Development* 19. 212–220. DOI: 10.1080/01434639808666353

Pavlou, Natalia, Evelina Leivada & Elena Papadopoulou. 2013. The Cypriot *embu* and cleft sentences: An investigation of their (non)-exhaustive properties. The Cypriot embu and cleft sentences: An investigation of their (non)-exhaustive properties. In Mark Janse, Brian D. Joseph, Angela Ralli & Metin Bagriacik (eds.), *Proceedings of the* 5th *International Conference of Modern Greek Dialects and Linguistic Theory.* Patras: University of Patras [online].

Petinou, Kakia & Arhonto Terzi. 2002. Clitic misplacement among normally developing chil-
dren and children with specific language impairment and the status of Infl heads. *Language
Acquisition* 10. 1–28. DOI: 10.1207/S15327817LA1001_1

Plunkett, Bernadette & Natalia Pavlou. 2011. Interpretation of ambiguous wh-questions in
Cypriot Greek and French. Paper presented at the *Workshop on Syntactic Variation*, Utrecht
Institute of Linguistics-OTS (10 December 2011).

Rowe, Charley & Kleanthes K. Grohmann. 2013. Discrete bilectalism: Towards co-overt pres-
tige and diglossic shift in Cyprus. *International Journal of the Sociology of Language* 224.
119–142.

Tsiplakou, Stavroula. 2004. Στάσεις απέναντι στη γλώσσα και γλωσσική αλλαγή: Μια αμφίδρομη
σχέση [Attitudes towards language and language change: A two-way relation?] In Georgia
Catsimali, Alexis Kalokairinos, Elena Anagnostopoulou & Ioanna Kappa (eds.), *Proceed-
ings of the 6th International Conference on Greek Linguistics*. Rethymno: Linguistics Lab
e-book.

Tsiplakou, Stavroula. 2007. Switching and mixing within and outside of a dialect continuum:
The case of Greek-speaking Cyprus. *Polydromo*, http://www.polydromo.gr/httpdocs/files/
Epistimoniko/epistimonikh_vivliografia/Switching%20and%20mixing%20within%20
and%20outside%20of%20a%20dialect%20continuum_%20the%20case%20of%20Greek-
speaking%20Cyprus.pdf.

Tsiplakou, Stavroula. In press. Competing grammars in Cypriot Greek? Evidence from the
Cypriot Greek *koiné*. *Proceedings of the 18th International Conference on Historical Linguis-
tics*. Amsterdam: John Benjamins.

Vassiliou, Erma. 1995. Cypriot as a VOS language. *La Trobe Working Papers in Linguistics* 8.
135–149.

Wedgwood, Daniel, Gergely Petho & Ronnie Cann. 2006. Hungarian 'focus position' and English
it-clefts: The semantic underspecification of 'focus' readings. Ms. University of Edinburgh.

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