



Three Factors and Beyond: The Socio-Syntax of (A)typical Language Acquisition and Development

Recent formulations of the biolinguistic program integrate “three factors of language design” (Chomsky 2005: 6):

- (1) **Genetic endowment**, “which interprets part of the environment as linguistic experience [...] and which determines the general course of the development of the language faculty”.
- (2) **Experience**, “which leads to variation, within a fairly narrow range, as in the case of other subsystems of the human capacity and the organism generally”.
- (3) **Principles not specific to the faculty of language**, such as “principles of data analysis that might be used in language acquisition and other domains” and “principles of structural architecture and developmental constraints [...] including principles of efficient computation”.

The 3FB conference, which will be held in Nicosia and organized by the Cyprus Acquisition Team (<http://www.research.biolinguistics.eu/CAT>), aims to investigate these factors in the domain of language development (see also Yang 2010, among others). This can be done from conceptual–theoretical, but also from psycho–neurolinguistic perspectives (e.g., Ullman 2004, 2008, 2012). As the sub-title of the event suggests, such investigations may go beyond the three factors and include the role of socio-syntactic aspects (if these cannot be captured by any existing factor). This may involve variation in the input for language acquisition (e.g., Westergaard 2009a, b), relevance of code-mixing/switching on language development (e.g., Tsiplakou 2009), or gradience in grammar through syntactic variants existent within and affected by a dialect–standard continuum (e.g., Cornips 2006). The data to be considered may come from first, second, or bilingual acquisition in typically developing as well as atypically or impaired populations.

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INVITED SPEAKERS: Stavroula Tsiplakou (Open University Cyprus)
Michael Ullman (Georgetown University)
Marit Westergaard (University of Tromsø)

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Three Factors and Beyond — The 3FB Conference

Classic Hotel, Old Town, Nicosia

16–18 November 2012

<i>Friday</i>		<i>16 November 2012</i>
18:00 – 18:15	WELCOME AND OPENING	
18:15 – 19:45	<u>Invited Speaker:</u> Michael Ullman (Georgetown University) <i>A Multidisciplinary Investigation of the Neurocognition of First and Second Language</i>	
20:00 – 22:00	EXTENDED WINE RECEPTION (BLUE BAR, WINE RECEPTION)	

<i>Sunday</i>		<i>18 November 2012</i>
09:30 – 10:00	Sviatlana Karpava & Kleantes K. Grohmann (UCY & CAT) <i>Object Clitic Placement Preferences of Russian–Cypriot Greek Bilinguals</i>	
10:00 – 10:30	Theoni Neokleous (University of Cambridge) <i>Clitic L1A: Cross-Linguistic/Dialectal Comparisons</i>	
10:30 – 11:00	Lena Papadopoulou^{1,4}, Evelina Leivada^{2,4}, & Natalia Pavlou^{3,4} <small>(¹University of Essex, ²Universitat de Barcelona, ³University of Chicago, ⁴Cyprus Acquisition Team)</small> <i>The Gradient Nature of Acceptability Judgments in Bilingual Populations</i>	
11:00 – 11:30	COFFEE BREAK	
11:30 – 12:30	<u>Invited Speaker:</u> Stavroula Tsiplakou (Open University of Cyprus) <i>Competing Grammars in Cypriot Greek? Evidence from the Cypriot Greek koiné</i>	
12:30 – 13:00	Charalambos Themistocleous (University of Cyprus) <i>The Syllabification of Geminate: Evidence from Segmental Anchoring</i>	
13:00 – 13:30	Phoevos Panagiotidis (University of Cyprus) <i>Roots Are Radically Empty and the Sign Is Structured</i>	
13:30 – 14:00	OUTRO (discussion, follow-up, farewell)	

<i>Saturday</i>		<i>17 November 2012</i>
09:30 – 10:00	Maria Kambanaros (Cyprus Acquisition Team) <i>Lexical Retrieval in Anomic Aphasia and SLI: More Similar than Different? Context and Word Class Effects</i>	
10:00 – 10:30	Cedric Boeckx^{1,2}, Anna Martínez-Álvarez² & Evelina Leivada^{2,3} (¹ ICREA, ² Universitat de Barcelona, ³ Cyprus Acquisition Team) <i>Agrammatism, Cartography & Tree Pruning: Resolving a Paradox</i>	
10:30 – 11:00	Vikki Janke¹ & Alex Perovic² (University of Kent ¹ , UCL ²) <i>Interpretation of Infinitives: A First Insight from High-Functioning Autistic Individuals</i>	
11:00 – 11:30	Christiana Christodoulou (University of Cyprus, CAT & MIT) <i>Tense in Cypriot Greek Down Syndrome: Developmental Patterns and Coping Strategies</i>	
11:30 – 12:00	COFFEE BREAK	
12:00 – 13:00	<u>Invited Speaker:</u> Marit Westergaard (University of Tromsø) <i>Linguistic Variation and Aspects of the Norwegian DP in Acquisition and Attrition</i>	
13:00 – 14:30	LUNCH BREAK	
14:30 – 15:00	Masaaki Kamiya¹ & Akemi Matsuya² (¹ Hamilton College, ² Takachiho University) <i>Examining the Semantic Subset Principle: A Case in Point for Japanese Children's Interpretation of Numeral + Contrastive Topic wa</i>	
15:00 – 15:30	John Winward (Thammasat University Thailand) <i>Patterns in Article Production by Learners with Non-DP L1</i>	
15:30 – 16:00	Tom Rankin (University of Salzburg) <i>L1 Grammatical Representations and Variable Input Frequencies in the Acquisition of L2 Syntactic Properties: Wh-Questions in L1 German–L2 English</i>	
16:00 – 16:30	COFFEE BREAK	
16:30 – 17:00	Eleni Theodorou^{1,2}, Maria Kambanaros² & Kleanthes K. Grohmann^{1,2} (¹ University of Cyprus, ² Cyprus Acquisition Team) <i>Specific Language Impairment in CG: Diagnostic Issues</i>	
17:00 – 17:30	Katerina Konstantzou¹, Angeliek van Hout², Spyridoula Varlokosta¹ & Maria Vlassopoulos¹ (¹ University of Athens, ² University of Groningen) <i>Perfective – Imperfective: Development of Aspectual Distinctions in Greek Specific Language Impairment</i>	
20:00 – ...	CONFERENCE DINNER (KATH' ODON, LEDRA STREET)	

INVITED SPEAKER

Competing Grammars in Cypriot Greek? Evidence from the Cypriot Greek koiné

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Cypriot and Standard Greek still stand in a diglossic relationship, with Cypriot Greek collectively perceived as the ‘L’ variety and Standard Greek as the ‘H’ variety (Arvaniti 2006; Tsiplakou *et al.* 2006). Recent work on Cypriot Greek however points to ongoing processes of *levelling* of local sub-varieties and the emergence of a Pancyprrian *koiné* (Terkourafi 2005, Tsiplakou *et al.* 2006; Tsiplakou 2009); such levelling and koineization processes are seen as the end result of increased contact between Standard and Cypriot Greek. While the Cypriot Greek *koiné* is, arguably, structurally mixed, it is of particular interest that it also emerges as a relatively *stable* linguistic variety, identifiable as such by its speakers and acting as quite a robust ‘buffer’ against contact-induced de-dialectization as a result of its relatively high, albeit covert, prestige among Cypriot Greek speakers.

This paper explores patterns of structural mixing between Standard and Cypriot Greek in the Cypriot Greek *koiné*; the data examined often look quite akin to language alternation or code-mixing, but they are hard to categorize and interpret as such on the basis of discourse considerations, as would be the case in more typical situations of language alternation (Tsiplakou 2009). Aspects of structural mixing in the Cypriot Greek *koiné* are examined in this paper with a view to determining whether these point to the co-existence of two competing grammatical systems, a possible effect of the diglossic relationship between the two varieties. The data indicate that there are ‘strong’ and ‘weak’ players in the competition, the strong players being syntax and phonetics/phonology and the ‘weak’ player being morphology. This is evidenced by the fact that structural mixing is mostly achieved through morphological choices, while Cypriot Greek phonology and syntax remain largely intact. The fact that morphology has this capacity of ‘buffer’ between two competing grammatical systems can in turn be seen as evidence in favor of dissociating morphology from syntax in second language (or, in this case, ‘second dialect’) acquisition. The parallel to interlanguage phenomena may in turn provide some useful insights into what constitutes a mixed grammatical system in situations of language contact between related varieties.

The data discussed (notably clitic placement, focus and *wh* clefts; cf. Tsiplakou *et al.* 2010) can further be seen as providing evidence that the successful acquisition of the surface morphology of Standard Greek does not necessarily trigger the acquisition of associated syntactic features, which also accounts for their ‘interlanguage’ flavor. The parallel to interlanguage phenomena may in turn provide some useful insights as to the precise nature of the ‘competition’ between the two systems; in the case discussed here, the dissociation between morphological and syntactic acquisition may explain the otherwise inexplicable mixes between Standard Greek morphology and Cypriot syntax recurring in the data (cf. Lardiére 2006; Panagiotidis & Tsiplakou 2004). Tackling the notion of competing grammars in terms of interlanguage formation may also shed light on the processes whereby competing grammatical systems can fuse into a single ‘mixed’ one, or, conversely, on aspects of the competition that may not allow the systems to merge.

INVITED SPEAKER

***A Multidisciplinary Investigation of the
Neurocognition of First and Second Language***

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Increasing evidence suggests that language crucially depends on two long-term memory systems in the brain, declarative memory and procedural memory. Because the behavioral, anatomical, physiological, molecular and genetic correlates of these two systems are quite well-studied in animals and humans, they lead to specific predictions about language that would not likely be made in the more circumscribed study of language alone. This approach is thus very powerful in being able to generate a wide range of new predictions for language. I will first give some background on the two memory systems, and then discuss the manner in which language is predicted to depend on them. One of the key concepts is that to some extent the two systems can subserve the same functions (e.g., for navigation, grammar, etc.), and thus they play at least partly redundant roles for these functions. This has a variety of important consequences for normal and disordered language and other cognitive domains. I will then present evidence that basic aspects of language do indeed depend on the two memory systems, though in different ways across different unimpaired and impaired populations. I will discuss normal first and second language, individual and group differences (e.g., sex differences), and our work on disorders, focusing on developmental disorders (e.g., Specific Language Impairment, dyslexia, autism, and Tourette syndrome).

INVITED SPEAKER

Linguistic Variation and Aspects of the Norwegian DP in Acquisition and Attrition

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In this talk I will first sketch a research program that considers variation in the primary linguistic data that children are exposed to, mainly focusing on Norwegian. On closer inspection, it turns out that children hear a lot of variation in the input, e.g. V2/non-V2, different subject positions, different object positions, etc. Our general findings are that children make fine distinctions in syntax and information structure from early on, which has led to a model of acquisition based on micro-cues. The non-target-consistent production attested is mainly due to lack of syntactic movement, generally accounted for in terms of economy.

I then turn to a discussion of word order variation in possessive constructions in Norwegian, where the possessor may be pre- or post-nominal (e.g. *min bil* 'my car' vs. *bilen min* 'car-def my'). Findings from monolingual children, bilingual Norwegian-English children and Norwegian heritage speakers in the US are discussed in terms of factors such as frequency, complexity and structural similarity. The findings are similar to those that have been attested in the clausal domain, and the general conclusion is that complexity is the most important factor in acquisition, while high frequency may protect against attrition. A comparison of the production of double definiteness in Norwegian (e.g. *den store bil-en* 'the big car-def') in the three populations points in the same direction.

Agrammatism, Cartography & Tree Pruning: Resolving a Paradox

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This paper seeks to resolve a paradox that emerges between robust findings in the agrammatism literature and the cartographic hierarchy of functional projections (e.g., (1)) on which many of the agrammatism studies rely.

(1) [CP C' [AgrP Agr' [TP T' [VP [V']]]]] (Belletti 1990)

Findings from agrammatism suggest that there is a crosslinguistic pattern according to which higher nodes are more affected than lower ones. According to Friedmann & Grodzinsky's (1997) Tree-Pruning Hypothesis (TPH), T(ense) shows up as impaired while Agr(eement) is preserved. This argument has received empirical support from several languages, such as Friedmann & Grodzinsky (1997, 2000) and Friedmann (1998, 2000) for Palestinian Arabic and Hebrew, Goodglass *et al.* (1993) for English, Benedet *et al.* (1998) for Spanish, Kolk (2000) for Dutch, or Martínez-Ferreiro (2010) for Catalan, Galician and Spanish.

Based on what these studies propose for the impairment of T and Agr, the hierarchy of these two nodes that one expects to see is $T > Agr$ (T higher than Agr). The paradox we focus on lies in the fact that the hierarchy put forth in cartographic studies (e.g., Belletti 1990) is $Agr > T$. Relating (1) and much work since then to the TPH and to findings from studies on agrammatism, a clash is observed between what the cartographic representation predicts as impaired and what the experiments show.

The present paper proposes to resolve the paradox by assuming feature inheritance from Agr to T in line with Chomsky (2007) and Richards (2007). Agr features start off on C higher than T (consistent with (1)) but are below T at the time transfer occurs, due to inheritance.

Our analysis could account for the clitic vs. Agr difference, discussed in the agrammatic literature (Martínez-Ferreiro 2010), along the lines of feature inheritance and interpretability. If clitics are agreement markers that are interpretable, the dissociation observed between clitics and Agr can be explained by assuming that no inheritance takes place in the case of clitics precisely because of their status as interpretable markers.

Tense in Cypriot Greek Down Syndrome: Developmental Patterns and Coping Strategies

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Down syndrome (DS) is a genetic condition that results in moderate to severe intellectual impairment. I investigate whether individuals with DS have knowledge of the syntactic and morphological system of Tense assignment.

A review of previous research on DS revealed a number of shortcomings, both within (especially for English) and across languages. Previous work on English DS (Eng_{DS}) argues for an impaired development of Tense and S/V agreement (Eadie et al. 2002, Laws and Bishop 2003, *inter alia*), with the exception of irregular Past Tense. However, different results are presented for regular Past *-ed* inflection, with the first two studies arguing for poor performance and the latter reporting that Eng_{DS} in their study did well with Past *-ed* inflection. Moreover, Schaner-Wolles (2004) reports that German DS shows correct use of finite verbs in the context of verb second (98.4%) constructions. While there are cases where a bare stem or infinitive is used in the context of verb second, this was recorded with typically developing controls as well. In an *acceptability judgement task*, Stathopoulou (2009) and Stathopoulou and Clahsen (2010) show that Greek_{DS} achieve high scores with the comprehension of Past Perfective verbs. They perform as well as their age-matched controls on verbs where (i) Aspect is marked via *-s-* suffix (regular), and (ii) Aspect is encoded in the verbal root. However, Greek_{DS}, just like Greek_{TDC}, are significantly better with verbs that include *-s-* than with verbs that do not. No mention of their performance with Imperfective Past or any other Tense marking is made. Reports on previous research motivate three important questions: (i) do we get the same results with production, (ii) given the evident phonetic/ phonological restrictions reported for English (Stoel-Gammon 2001) and Cypriot-Greek DS (Christodoulou 2011), especially with /s/, do they perform worse with regular verbs inflected with Perfective Past and, if they do, is the problem morpho-syntactic or phonetic, and (iii) what about Imperfective Past and all other Tense values?

Through nine experimental (production) tasks, including elicited production (through video stimuli), imitation production, story-telling, etc., I investigate the linguistic performance of 16 CG_{DS}, aged 19 to 45, and 17 CG_{TDC}, aged 7 to 8. Groups were matched based on previous reports on their cognitive abilities by Schaner Wolles (2004). In addition, through a pilot study groups were matched on the basis of being at a (st)age of (almost-) full acquisition. An innovative analysis was employed; productions were evaluated not only compared to the targeted utterance, but also based on structural environment in which they were produced.

Four significant findings arise from this study. First, the production of Tense inflectional marking is accurate for Past Perfective (both with *-s-* suffix (i.e. regular) and irregular roots) (*Table 1*); no difference between the two is observed. Second, the participants' performance with Tense and Tense-Aspect was almost at ceiling (*Tables 2 & 3*), with minimal significant differences between CG_{DS} and CG_{TDC}. Third, unlike reports from previous studies, omission of full verbs is infrequent (3.8% for CG_{DS} and 0.5% for CG_{TDC}), while omission of copulas is relatively high (26.6% for

CG_{DS} and 1.1% for CG_{TDC}). Fourth, there was an evident tendency for reorganization of certain environments, especially with Past Tense and the Imperative. Note that uses of alternative Tense values and syntactic structures are quite systematic, and quite frequently grammatical (Ex. 1&2). This was not entirely surprising, given that Schaner Wolles (2004) also reported syntactic reorganization for German DS. What is surprising is not only the systematicity and grammaticality of alternative value use, but also the fact that certain choices for alternative use were syntactically more demanding than the targeted ones.

In sum, despite the minimal differences between CG_{DS} and CG_{TDC}, the adult CG_{DS} Grammar, and specifically the syntactic and morphological mechanisms pertaining to the assignment of Tense, is not impaired, given the high accuracy rates. Rather, we observe that their performance is parallel to that of CG_{TDC} with some systematic differences (e.g. a clear preference to defaults (Present)), which I will argue are extra-syntactically conditioned.

	Regular		Irregular		<i>t</i>	<i>df</i>	<i>p</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
CG _{DS}	1.000	0.000	0.997	0.010	1.000	15	0.333
CG _{TDC}	0.997	0.014	1.000	0.000	-1.000	16	0.332

TABLE 1: PARTICIPANTS' PERFORMANCE WITH REGULAR AND IRREGULAR ROOTS FOR PAST PERFECTIVE

	CG _{DS}		CG _{TDC}		<i>t</i>	<i>df</i>	<i>p</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Present	0.949	0.367	0.964	0.455	-1.05	31	0.301
Past	0.991	0.021	0.999	0.003	-1.20	31	0.281
Dependent	0.948	0.052	0.991	0.028	-2.91	31	0.007
Imperative	0.935	0.131	0.991	0.026	-1.71	31	0.097

TABLE 2: PARTICIPANTS' PERFORMANCE WITH TENSE

<i>Tense</i>	<i>Aspect</i>	CG _{DS}		CG _{TDC}		<i>t</i>	<i>df</i>	<i>p</i>
		<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Present	Imperfective	0.949	0.037	0.964	0.045	1.050	31	0.302
Past	Imperfective	0.994	0.025	1.000	0.000	1.032	31	0.310
	Perfective	0.995	0.013	0.999	0.005	1.039	31	0.307
Dependent	Perfective	0.946	0.054	0.991	0.028	3.021	31	0.005
Imperative	Imperfective	0.958	0.167	0.971	0.083	-0.270	31	0.789
	Perfective	0.948	0.096	1.000	0.000	2.218	31	0.034

TABLE 3: PARTICIPANTS' PERFORMANCE WITH TENSE AND ASPECT

<i>Expected Utterance</i>			<i>CG_{DS} Production</i>		
(1a) Pcan-ondas	tin	penna...	(1b) Na	pcia-o	ti(n) penna...
<i>take-GER</i>	<i>DET</i>	<i>pen</i>	<i>SUBJ</i>	<i>take.IMPF-PRES.1.SG</i>	<i>DET pen</i>
(2a) Klis-e	to	paraθiro.	(2b) Tora	na	to
<i>close-PRF-DEP-2SG</i>	<i>DET</i>	<i>window</i>	<i>now</i>	<i>SUBJ</i>	<i>CL</i>
				vao-s-is	na ...
				<i>close-PRF-DEP.2SG</i>	<i>SUBJ</i>
				... klis-is	tin
				<i>close-PRF-DEP-2SG</i>	<i>DET</i>
				... m(e) ben-i	o
				<i>NEG enter.IMPF-PRES.3SG</i>	<i>DET</i>
				... iλos mesa.	<i>sun in</i>

Interpretation of Infinitives: A First Insight from High Functioning Autistic Individuals

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In this paper we examine the development of structural control in children with high functioning autism (HFA). We first compare ‘canonical’ examples, where interpretation of the implicit agent in the infinitival complement is anticipated by the verb used in the main clause, as in (a) and (b), and then examples whose interpretations deviate from this predictable pattern, such as in (c) and (d).

- | | | |
|-----|--|----------------------|
| (a) | John tried [to build a sandcastle] | SUBJECT = CONTROLLER |
| (b) | John persuaded Mary [to build a sandcastle] | OBJECT = CONTROLLER |
| (c) | John promised Mary [to build a sandcastle] | SUBJECT = CONTROLLER |
| (d) | John pushed Mary [while building a sandcastle] | SUBJECT = CONTROLLER |

That the interpretation of the implicit subject in the bracketed clause is regulated by a complex of syntactic principles, including uniqueness, c-command, locality (Williams 1980; Manzini 1983; Landau 2000; Hornstein 2001; Adler 2006; Janke 2007), makes them an interesting focus of study in HFA populations, who have more latterly been shown to exhibit difficulty in their comprehension of other constructions that share the above properties, for example, reflexive binding, passives and raising (Perovic, Modyanova & Wexler 2012).

In typical development (TD) complement control constructions such as (a) and (b) are found in production as young as three. The onset of productive mastery of adjunct control (d) is from five, whereas the promise-type construction in (c) appears between the ages of six and seven and continues to cause confusion till quite late (see Cohen & Lust 1993; Goodluck, Terzi & Diaz 2001; Guasti 2004). The developmental trajectory in autism is as yet unknown. Our study ascertains the extent to which our sample of HFA participants falls in line with TD, or whether a different developmental sequence is evident, given recent literature which suggests syntax may also be impaired in this population (e.g. Eigsti & Bennetto, 2009; Perovic 2007; Perovic, Modyanova & Wexler 2012).

Twenty two HFA monolingual English children (21 boys), from specialist autism facilities in the UK, participated: aged 7-16 years, $M=13;06$; non-verbal IQ SS $M=103.95$, range 80-144 (Matrices subtest, Kaufman Brief Intelligence Test, KBIT), British Picture Vocabulary Scales (BPVS) SS $M=85.64$, range 47-120. They were matched to a group of younger TD controls ($n=22$, CA range 7-14, $M=10;03$) on gender and non-verbal MA (raw score of KBIT).

A picture selection task with a target and a foil was used. Data were analysed using a mixed-effects model of logistic regression, with a binomial link function (GLIMMIX), in SAS 10. Results show ceiling performance on *try* (a) (estimated mean proportion correct $M=0.99$ for both groups). Problems start in double-complement control structures. The starkest between-group difference is on *promise*, (c), HFA $M=0.63$ vs. TD $M=0.93$, although TD children also find *promise* most difficult compared to other sentence types. On *persuade*, (b), HFA children perform slightly worse than the TD controls ($M=0.90$ vs. $M=0.95$), and we argue that locality is the most likely source of this difference, although further testing on c-command independently of locality would firm up this conclusion. With respect to the adjunct condition, (d), even when locality has been mastered, HFA children still allow illicit interpretations (HFA $M=0.80$, TD $M=0.94$), pointing to a problem that is orthogonal to the syntactic restrictions on control. We suggest knowledge of restrictions on the attachments of adjuncts may be key here, in the spirit of Cairns et al. (1994) and Adler (2006).

***Lexical Retrieval in Anomic Aphasia and SLI: More Similar than Different?
Context and Word Class Effects***

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Recent research (Friedmann, Biran & Dotan, 2012; Kambanaros, 2013) suggests that word retrieval deficits widespread in language-impaired children follow similar patterns of breakdown as those found in adults with acquired language impairments after brain injury. In this presentation I will report the findings of two studies investigating the contextual influences on lexical retrieval for verbs and nouns in bilingual (Cypriot Greek–Standard Greek) children diagnosed with SLI (Kambanaros, in submission) and a group of bilingual adults (Greek–English) diagnosed with anomic aphasia (Kambanaros, 2010). The purpose is to establish any similarities or differences between grammatical word class and context on word retrieval abilities in both groups for Greek. Lexical retrieval of verbs and nouns was measured on two production tasks: picture confrontation naming and connected speech.

Children with SLI and the anomic aphasic group showed a significant lexical or naming deficit for verbs compared to nouns. However in connected speech verb retrieval was spared with both groups producing higher-than-normal verb type–token ratios.

The results suggest that children with SLI present a similar verb deficit pattern to anomic adult aphasics by demonstrating the lowest association between confrontation naming and connected speech for verbs. This means that the ability to predict lexical retrieval abilities for verbs in connected speech from naming performance is weak for both groups.

The findings will be discussed in relation to the lemma-lexeme dichotomy (Levelt, 2001) and executive resource demands. Also, the dissociations between picture naming and connected speech will be explained within the lexical system. Finally, the clinical implications for speech therapy practice will be highlighted.

Examining Semantic Subset Principle: Case in Point for Japanese Children's Interpretation of Numeral + Contrastive Topic *wa*

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Ambiguous sentences pose a learnability puzzle. Consider the English example (1): (1a) is a subset reading, while (1b) is a superset reading. The learnability puzzle is this: if a child learns the subset reading first, s/he cannot learn the superset reading because there cannot be a situation where only the superset reading of (1) is true. Crain et al. (1994) and Crain & Thornton (1998) claim that the superset reading is always acquired first due to this constraint, called the semantic subset principle (2). Hence, such a hypothesis predicts the order of acquisition: the superset reading first and the subset reading second. The main purpose of this paper is to investigate if this is plausible.

Imagine the following exchange between two speakers (see 3). In order for A to obtain a cookie when B's sentence is true, there are two scenarios. One is where exactly 3 balls are in the goal (3 goals out of 5 balls = 3-out-of-5 context). The other is where more than 3 balls are in the goal (5 goals out of 5 balls = 5-out-of-5 context). When the target phrase is *mit-tu-wa* 'at least three', 5-goals contains 3-goals (superset-subset). The target phrase contains the Contrastive Topic (CT) '*wa*' which implies uncertainty/incompleteness/non-finality (Kuno 1973, Tomioka 2010, among others). The question is how Japanese-speaking children interpret the meaning. Is the learning path compatible with the semantic subset principle (i.e., superset first, subset second)?

Kamiya & Matsuya (2012) tested the 5-out-of-5 contexts for 20 Japanese children (mean age: 5;4) and 19 adults by Truth Value Judgment Task (TVJT, Crain & Thornton 1998). They discovered that while adults' responses were 100% for the target sentences, children's were 71.7%: $t(19) = 2.95$, $p = 0.008$. But they did not investigate the 3-out-of-5 contexts, so in this study we examined 20 Japanese children (mean age: 5;1) and 20 adults in TVJT. We discovered that while adults' responses were 100%, children's were 86.7%: $t(19) = 2.27$, $p = 0.035$. In both experiments, adults exceeded children, but children performed differently in the two experiments.

Based on the results of these studies, we can make two claims. First, children tend to accept 3-out-of-5 contexts (86.7%) more than 5-out-of-5 contexts (71.7%). This seems to indicate that children start learning the subset interpretation more robustly than they do the superset interpretation. This implication questions the validity of the semantic subset principle.

Recently, Musolino (2006) and Gualmini & Schwarz (2009) argue against the empirical motivations for the semantic subset principle. The current study supports these authors. Namely, it seems that there is no such directionality of the learning path. Second thing is also relevant to the first point. The current study shows that children interpret the numeral 'N' and the numeral 'N' + *wa* 'at least N' differently. It is well known that the numeral has a non-exact interpretation such as 'at least N' (Horn 1972). Musolino (2004) and Kamiya & Matsuya (2011) demonstrated that both English and Japanese children understand the non-exact interpretations of the numerals. However, observe (4): some children understand *mit-tu-wa* 'at least three'

as 'exactly three' in 5-out-of-5 contexts, and others understand it as not including 'three', but, rather, beyond 'three', in 3-out-of-5 contexts. This shows that some children start with the subset interpretation, and others start with the superset reading. In essence, children come to know the adult interpretations. Where does this knowledge come from? Based on the CHILDES search for numeral 'N' + *wa* constructions, there is no evidence that children benefit from parental (or environmental) inputs. Hence, we conclude that such knowledge is not learnable; it is innate, but not constrained by the order of acquisition.

- (1) The big elephant is the only one playing the guitar.
 - a. The only thing playing the guitar is the big elephant (subset reading).
 - b. The only elephant playing the guitar is the big elephant (superset reading).
(Crain & Thornton 1998: 116)

- (2) "Suppose that the interpretive component of Universal Grammar makes two interpretations, A and B, available for a sentence, S. If so, then see if S is true in a narrower range of circumstances on interpretation A than on interpretation B. If so then, A will be hypothesized before B in the course of language development."
(Crain & Thornton 1998)

- (3) Context: A and B are in the school ground. There are five soccer balls.

A: Gooru-ni booru-ga haittara, kukii-o tyoodai.
goal-DAT boal-NOM enter-if, cookie-ACC give-me
'If I make a goal with the ball, give me a cookie.'

B: Mit-tu-**wa** iretene. Soo sitara, ageruyo.
three-CL-**CT** enter so if-do give-you
'If you shoot at least three goals, I can give you a cookie.'

(NOM = nominative, ACC = accusative, DAT = dative, CL = classifier, CT = contrastive topic)

- (4) Reasons why children rejected 'yes' among the possible interpretations in (3):
 - i. 5-out-of-5 context: it is because A did not shoot exactly three goals.
 - ii. 3-out-of-5 context: it is because A had only three goals.

Object Clitic Placement Preferences of Russian–Cypriot Greek Bilinguals

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The aim of the present study is a further investigation of the acquisition of object clitic by bilingual Russian–Cypriot Greek children. Cypriot Greek (CG) and Standard Modern Greek (SMG) differ in terms of object clitic placement: in CG indicative declarative clauses clitic should be placed post-verbally and in SMG pre-verbally.

This work is another attempt to compare the object clitic production of bilingual and monolingual groups. In the previous study (Karpava & Grohmann, 2012) 18 Russian–Cypriot Greek children were tested on the CG adaptation of the *clitics-in-islands tool* (COST Action A33; Varlokosta et al., to appear) and PPC test (Tsimpli & Tuller, 2011).

This time 31 bilingual Russian–CG children, 17 girls and 14 boys, born in Cyprus and coming from Larnaca (N=26) and Nicosia (N=5), rural (N=18) and urban (N=13) districts, participated in the study. All the participants were divided according to their age: 3;0–3;11 (N=1), 5;0–5;11 (N=7), 6;0–6;11 (N=10), 7;0–7;11 (N=6) and 8;0–10;0 (N=7) and according to schooling factor: kindergarten (N=4), pre-primary (N=13) and primary (N=14). Their Greek proficiency was assessed with the help of the Developmental Verbal IQ Test (DVIQ), slightly adapted to CG from Stavrakaki & Tsimpli's (2000) SMG original.

The bilingual children were tested on the COST Action IS0804 (2009–2013) tool, which is a shorter version of the *clitics-in-islands tool* (COST Action A33; Varlokosta et al., to appear). The tool consists of the 19 items, 2 warm-up items, 12 test items and 5 fillers. The test items are focused on the object clitic elicitation, while the fillers aim the production of a reflexive clitic. Participants were tested individually, they were showed pictures of the power point presentation and were expected to answer the questions (e.g. 'What is the princess doing with the soldier?'). Each testing session was audio-recorded.

In general, it was found out that bilingual children used more clitic (57%) than non-clitic (43%) answers (Fig.1). Non-clitic answers included NPs (67%), null production (24%) and no answer (9%) (Fig. 2). The clitic answers consisted of proclisis (66%) and enclisis (34%): the rate of proclisis production was higher than the enclisis production (Fig. 3).

The clitic production increases with age, the interesting thing is that 5-year-olds and 8- to 10-year-olds had the equal production of both clitics and non-clitics (chance production), and the 6- and 7-year-olds had the same test results (60% of clitics and 40% of non-clitics) (Fig. 4). The smaller children start with enclisis preference than they switch to proclisis production and then again to enclisis (Fig. 5). The cut-off point is between 5 and 6 years. This can be explained by schooling effect as at school children are exposed to SMG variety and pre-verbal clitic.

It was found that kindergarten children differ from pre-primary and primary children in terms of clitic and non-clitic preferences, the former tend to use non-clitics in the test, the latter clitics (Fig. 6). There is a strong correlation between a schooling factor and enclisis vs. proclisis production, in kindergarten children tend to use enclisis, they switch their preferences to proclisis, when in pre-primary and primary school, they switch from CG mode to SMG mode under the school influence (Fig. 7).

Children with higher DVIQ scores tend to use more clitic than non-clitics, and children with lower DVIQ scores prefer to use more non-clitics than clitics in the test. The children who scored high in DVIQ test use more proclisis than enclisis, there is a reverse situation for the children with low DVIQ scores.

There was a difference in male and female test production: girls tended to produce more clitic answers and boys non-clitic answers. Likewise, girls produced more proclisis and boys more enclisis. The only difference between rural and urban areas is the preference for pre- and-post-verbal object clitic placement: in rural areas children use more enclisis, in urban areas more proclisis.

The results are in line with the previous study (Karpava & Grohmann, 2012) and support the Socio-Syntax of Development Hypothesis (Grohmann, 2010–12).

Figure 1

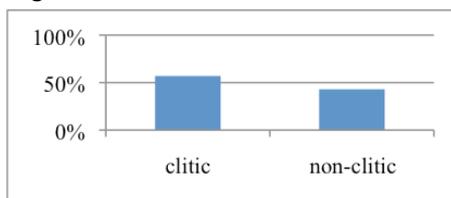


Figure 2

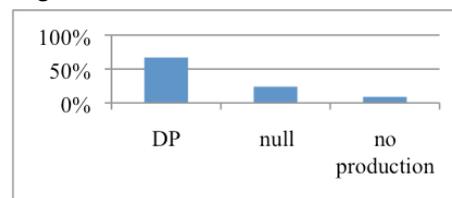


Figure 3

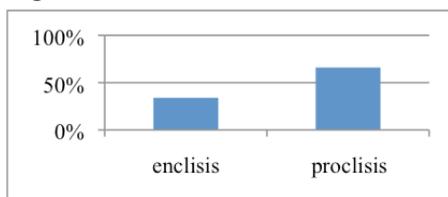


Figure 4

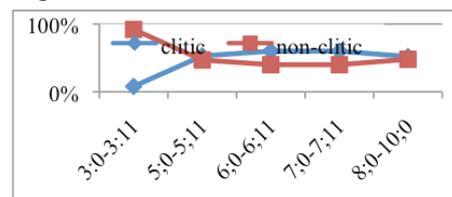


Figure 5

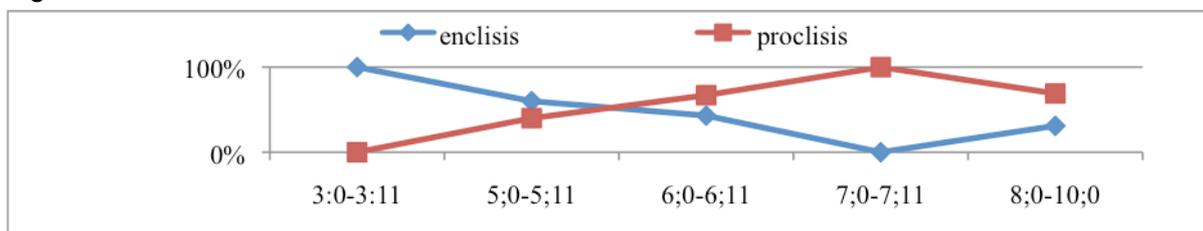


Figure 6

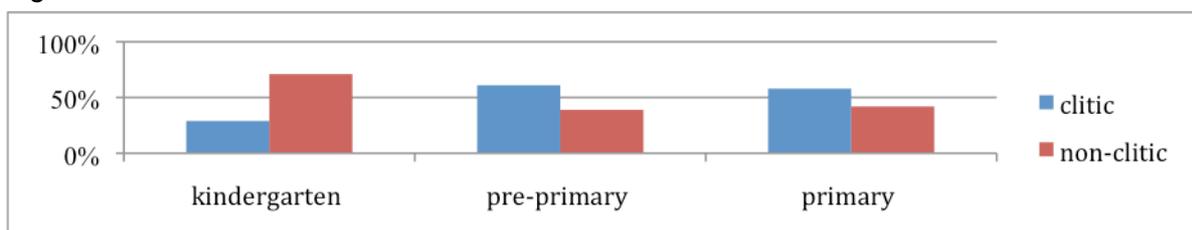
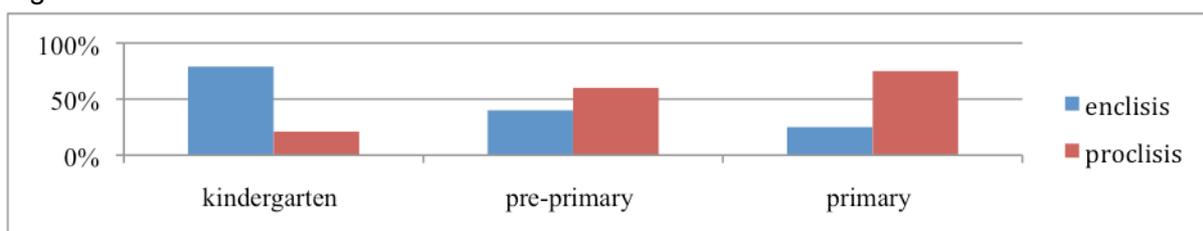


Figure 7



Perfective – Imperfective: Development of Aspectual Distinctions in Greek Specific Language Impairment

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Introduction: It is well-documented that children with Specific Language Impairment (SLI) have problems in tense and agreement morphology (Clahsen & Dalalakis, 1999; Leonard et al., 1997; Rice & Wexler, 2001). SLI research on the acquisition of aspect is much more limited and has revealed conflicting results. Some studies find that aspect appears to be less impaired than tense (Leonard et al., 2003 and Owen, 2010 for English). Yet other studies find that children with SLI face difficulties with aspect (Fletcher et al., 2005 for Cantonese aspect production; Leonard et al., 2012 for Hungarian aspect comprehension and production; Leonard & Deevy, 2010 for English aspect comprehension). Since relevant research is cross-linguistically limited, we examined comprehension and production of aspectual distinctions in Greek-speaking children with SLI. This investigation offers the opportunity to determine whether or not aspect comprehension and/or production are vulnerable in SLI obtaining data from a different language, which encodes aspect through verb morphology. Our results support that development of aspectual distinction in Greek SLI seems to be late rather than severely impaired.

Methods: 9 children with SLI (aged 4;11-7;10, mean age: 6;3), 18 typically-developing, age-matched (AM) children (aged 4;11-7;9, mean age: 6;3) and 18 typically-developing children matched on receptive vocabulary (language matched, LM) (aged 3;4-6;1, mean age: 4;8) participated in a combined comprehension-production task (van Hout et al., 2010). Short movies showed a clown performing complete vs. interrupted actions. Participants judged the use of imperfective and perfective aspect in combination with complete and incomplete situations. They were also prompted to produce aspect forms for both types of situations. There were six verbs; each was used in all conditions. All verbs used were transitive and telic with regular aspect inflection in the past tense.

Results – Comprehension (Figure 1): Overall, SLI children did not significantly differentiated compared to the LM group. However, both SLI and LM groups performed significantly worse compared to the AM group in relation to the combination of incomplete action–imperfective aspect, incorrectly rejecting this combination significantly more often (Tukey HSD, $p < .05$).

Results – Production (Figure 2): With respect to complete events, no significant group effect was found. With respect to incomplete events though, there was a significant group effect. That is, both SLI and LM groups produced significantly less imperfective forms (LSD, $p < .05$) and significantly more negative perfectives, such as “He did not draw the circle”, “He did not build it”, etc. (Mann-Whitney, $p < .05$ for SLI and $p < .001$ for LM) compared to the AM group. There was no significant difference between SLI and LM groups.

Discussion: Our results show that Greek-speaking children with SLI mainly have problems with imperfective aspect. This finding does not support previous claims that children with SLI face difficulties with both aspectual forms (Fletcher et al., 2005; Leonard & Deevy, 2010; Leonard et al., 2012). Moreover, they did not differ from their younger controls, exhibiting a pattern that has been described for typical development, specifically, insufficient knowledge of imperfective aspect even by the age of 5;0 (Kazanina & Phillips, 2003; van Hout, 2005). Therefore, we suggest that SLI children, actually, show a late development of the aspectual distinction, which coincides with the error pattern observed in early typical development. (It should be mentioned here that SLI children were also tested on various morphosyntactic phenomena; their performance concerning production of compound words and past tense was vulnerable indicating language impairment and not a delay.)

Figure 1: Comprehension – Percentages of correct answers for each combination

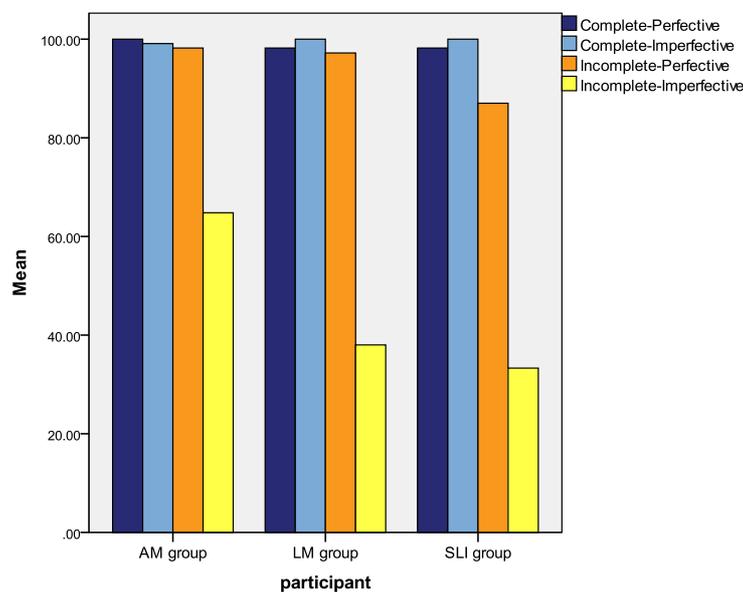
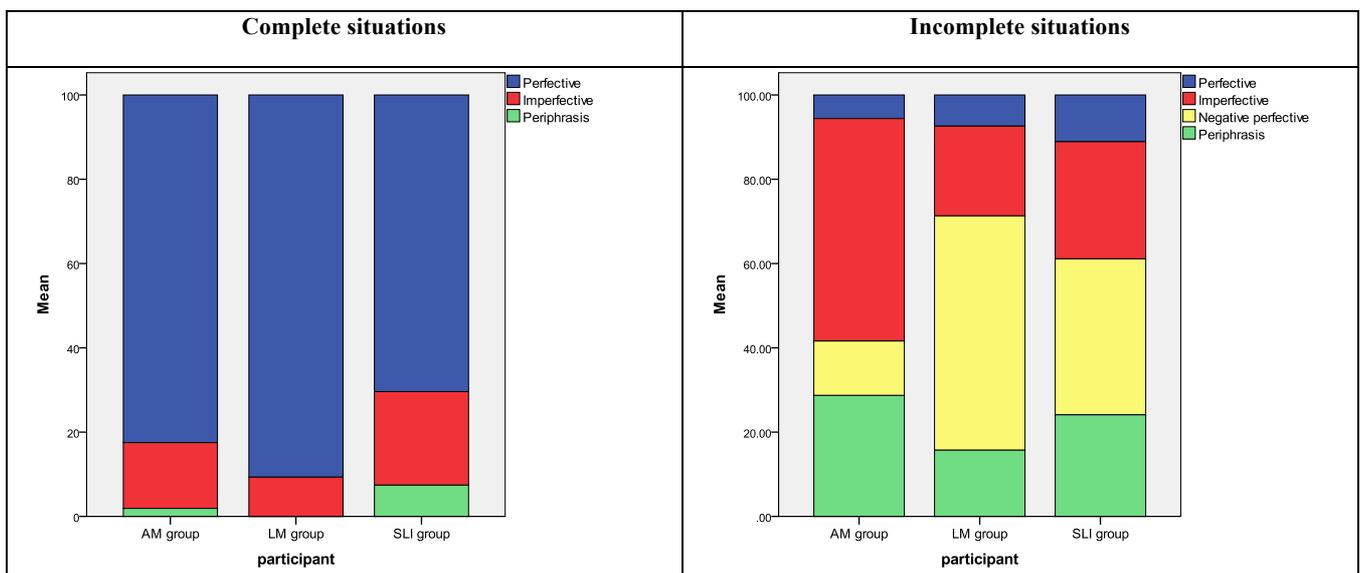


Figure 2: Production – Percentages for each type of children’s answers



Clitic L1A: Cross-Linguistic/Dialectal Comparisons

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Background: Standard Modern Greek (SMG) and Cypriot Greek (CG) are two varieties of Greek that share the same morphological paradigm for object clitic pronouns. Yet, each variety belongs to a different class with respect to the syntax of clitics: following Mavrogiorgos' (2012) classification of clitic languages, SMG is a finiteness-sensitive language, while CG exhibits Tobler–Mussafia effects. The enclisis/proclisis alternation in SMG is contingent on the presence/absence of an unvalued person feature in T (Mavrogiorgos 2009). As for CG, there is no consensus in the literature whether this alternation is regulated by syntax (Agouraki 2001, Terzi 1999a; 1999b), prosody (Condoravdi & Kiparsky 2001) or the syntax–phonology interface (Mavrogiorgos 2012, Revithiadou 2006). Clitic placement in early SMG is adult-like, whereas in early CG clitic misplacement is attested. This paper examines if and to what extent syntactic, prosodic and interface approaches can accommodate acquisition data in CG and aims at explaining the divergence attested between early CG and early SMG.

Method: The database examined comprises of spontaneous, experimental and longitudinal data. All the participants were CG-speaking children aged 2 to 4. Samples of spontaneous speech were collected by 8 children, one of which was followed longitudinally, while 50 children performed an elicited production task for 3rd person singular object clitics in root clauses, negatives and clauses headed by modal particles.

Results: All the children had target-like clitic placement in enclisis contexts, while some children (30% of the overall population) younger than 3;0 had ceiling percentages of misplaced clitics in proclisis contexts.

Discussion: Clitic misplacement in early CG is manifested in single and double clitic structures, as well as in Clitic Doubling and Clitic Left Dislocation. Yet, it does not correlate with early nonfinite verbs. This is taken as an indication that it does not correlate with an impoverished Inflection. Rare occurrences of double realization of the clitic pronoun in both pre- and post-verbal position constitute the crucial piece of evidence for accommodating clitic misplacement. Following Revithiadou (2006) and elaborating on ideas in Bošković (2001), I assume that finite enclisis in CG is the result of the PF-controlled spell-out of copies (left behind upon the manifestation of clitic movement). With regard to the divergence between early SMG and early CG, it is captured as follows: proclisis–enclisis alternation in SMG is the result of syntactic operations alone (correlation with the presence/absence of an unvalued person feature in T; cf. Mavrogiorgos 2009). Thus, SMG-speaking children need to acquire this correlation. The domain of cliticization in CG, on the other hand, is the syntax–PF interface. Thus, CG-speaking children need to acquire both the syntactic and the prosodic operations involved in order to manifest adult-like clitic placement.

Roots Are Radically Empty Root and the Sign Is Structured

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This talk examines the nature of linguistic roots, which are typically understood as what remains after all affixes etc. have been taken away from a word, e.g. *industr-* is the root forming *industry*, *industrial*, *industrious* etc. In recent years, however, interest in roots has expanded well beyond the confines of morphology: in work by Borer (2005, 2009) and in a considerable body of work within the Distributed Morphology framework, roots have been reconceived as the core of syntactic derivations.

In addition to being syntactically active, Distributed Morphology understands roots as (i) category-neutral, (ii) meaningful, and (iii) phonologically identified elements. In this talk, each of these claims will be scrutinised in the light recent theoretical developments shed on cross-linguistic empirical evidence. The emerging picture is one of roots being acategorical indices of lexical identity (Acquaviva 2008; Harley 2009, 2012; Boeckx 2010). Roots will also be shown to be radically devoid of any semantic content ('meaning') outside a grammatical context and to be unexceptional morphologically, as well.

The above picture has important implications for Fodor's Conceptual Atomism as well as for our conception of the Saussurean sign itself. First, if roots are contentless, it turns out that we can adhere to syntactic decomposition while subscribing to Fodorian conceptual atomism — thus solving a problem that has been looming over our understanding of the word-concept relation since at least the time of Generative Semantics. Moreover, the Saussurean sign turns out to be not an unstructured arbitrary pairing of meaning (signified) and phonological representation (signifier). On the contrary, what links signified and signifier together is *structure*, making (syntactic) structure essential for the mapping of sound to meaning even at the 'lexical' level.

The Gradient Nature of Acceptability Judgments in Bilectal Populations

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This paper aims at investigating the gradient nature of acceptability judgements of speakers, who acquire language in a bilectal environment (Rowe & Grohmann, 2012) while focusing on cleft and ‘cleft-like’ sentences. The theoretical motivation is to evaluate the hypothesis that *embu* ‘<it->is- <it->that’ is an underlying form of cleft and decipher exhaustivity effects between cleft (1) and *embu*-structures (2) in Cypriot Greek (CG):

- (1) En tin map^han pu epetaksen o Yannis.
Is *the ball that throw the John*
‘It is the ball John threw.’
- (2) Tin map^han embu epetaksen o Yannis.
the ball embu (is-that) throw the John
‘The ball John threw.’

187 participants were asked to judge whether 53 declarative sentences were true in relation to 6 stories. Results suggest *embu* allows for non-exhaustive interpretations, supporting a focus complementiser approach (Papadopoulou, in progress), but it can also allow exhaustive interpretations in a much less degrees suggesting a morphosyntactic change. The availability of bona fide clefts in CG is challenged, since one third of the participants allow for non-exhaustive interpretation with clefts.

A morphosyntactic change can be assumed to explain the results, which sometimes set *embu* as a cleft and/or as a complementizer. The change could be the effect of language contact -through education, media, etc. — with Standard Modern Greek (SMG), one of Cyprus’ official languages, which does not have either *bona fide* or the *embu*-type clefts. None of the two official languages are spoken by the majority of the population, but rather Cyprus exhibits a bilectal linguistic environment between CG and SMG. By defining the linguistic environment as such it becomes clear that we have at least two linguistic codes (whatever their status) whose grammars are not clearly defined and with one code being affected by the other in all levels of language, and more particularly syntax.

What the results reveal is wide intra-dialectal variation, since all sentences elicited mixed responses with respect to their status as true or false. Mixed performance boils down to the gradient nature of the morphosyntactic properties that pertain to each variety, viewing gradience from the perspective of syntactic variants existent within and affected by a dialect–standard continuum (cf. Cornips 2006 for the case of Standard and Heerlen Dutch).

L1 Grammatical Representations and Variable Input Frequencies in the Acquisition of L2 Syntactic Properties: Wh-Questions in L1 German–L2 English

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Yang (2010: 1162) characterises his variational learning approach to child language acquisition as “an attempt to provide quantitative connections between the linguistic data and the child’s grammatical development through the use of parameters.” Slabakova (2008: 116) in turn notes that the model is “logically extendable” to second language acquisition (SLA). This paper explores the interaction of frequency in the input and L2 grammatical development by investigating L1 Austrian Germans’ interpretation of English *wh*-questions and the occurrence of relevant syntactic cues in the input in English classroom interaction.

There is overlap in the surface form of English and German *wh*-questions, but with distinct patterns of interpretation due to thematic verb second (V2) and object–verb order (OV) in German (Table 1). A picture interpretation methodology adapted from Grüter (2006) was completed by instructed upper-intermediate L1 Austrian-German learners of L2 English (n=19) and native controls. The results show that while interpretation is often in line with the English target, L1 patterns of interpretation persist. This indicates that learners retain both L1 syntactic representations and ambiguity resolution strategies based on animacy to parse L2 input (Fig 1).

The comprehension data then contradicts previous research on the acquisition of English by speakers of German, which has found that VP headedness is reset very quickly (Kaltenbacher 2001). Likewise, while previous findings indicate that learners may continue to transfer the V2 constraint to L2 English with non-thematic verbs, the findings that learners quickly lose V2 with thematic verbs are called into question (Roberson & Sorace 1999; Westergaard 2003).

While Westergaard (2003: 92) notes that *do*-support in English questions is a necessary cue in the input to restructure from a V2 to a non-V2 grammar, *do*-support is available in L1 Austrian German and is thus parsable by the L1 grammar (see Table 1). Compound tense subject questions are therefore the only question form which are strictly unparsable by the learners’ L1 grammar. An analysis of the occurrence of question forms in a corpus of classroom interaction in content and language integrated learning lessons in Vienna shows that these are rare in the input (4.81% of question forms) and that the vast majority of questions have an identical surface structure to German. In particular, copula questions predominate (44.71% of questions), for which an L1 German syntactic parse also provides a target semantic interpretation (Fig. 2).

The L2 comprehension results and the input frequency findings support Slabakova’s adaptation of variational learning for SLA. She suggests that the L1 parameter value has a privileged status and will be accessed to parse L2 input where possible. Thus, while access to UG makes new parameter values available in SLA, L1 German learners of L2 English will frequently be able to successfully parse input with the L1 grammar. This then reinforces the strength of the L1 grammar (in the technical sense of Yang). It is predicted that L2 competence is made up of a number of different grammatical representations, any of which may be accessed to parse input. In the case of L1 German–L2 English, a range of forms which occur frequently

in the input are parsable by a German V2/OV grammar. A combination of input frequency and the nature of L1 grammatical representations means that non-target representations survive among the population of grammars and are accessed to parse the L2, even at higher levels of proficiency.

Table 1: Formal correspondence between (Austrian) German and English wh-questions

(Austrian) German	English
Was jagt die Katze?	What chases the cat?
Was tut die Katze jagen?	What does the cat chase?
Was hat die Katze gejagt?	What has the cat chased?
—	What has chased the cat?

Fig. 1: Learners' patterns of interpretation of English question forms

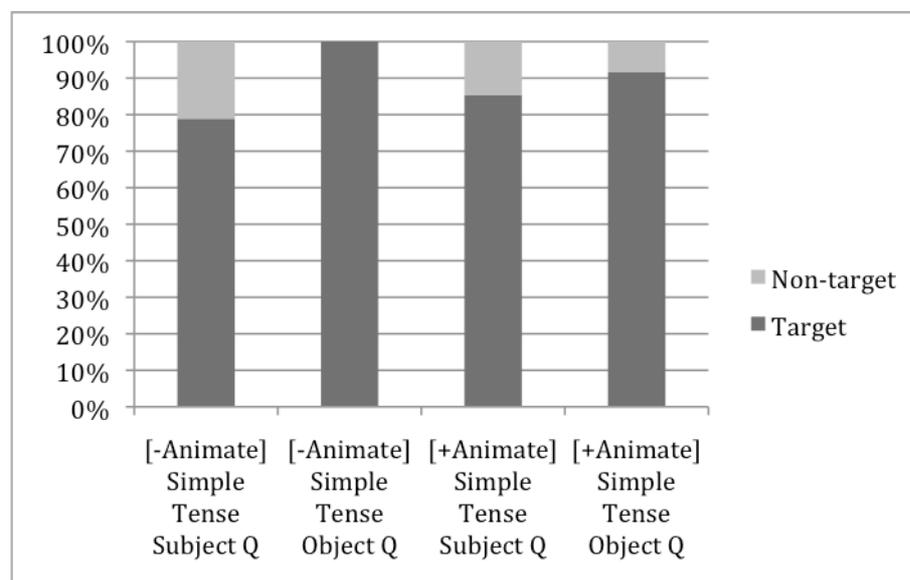
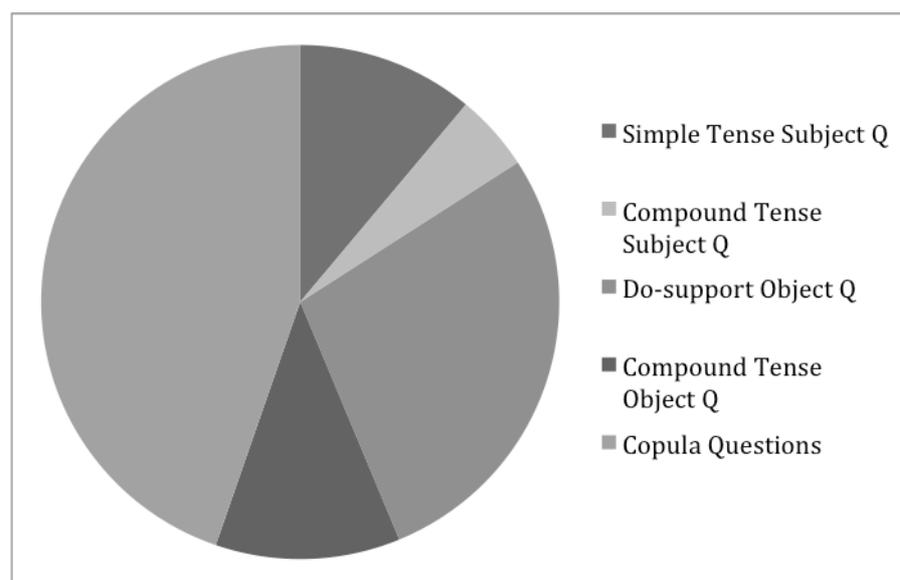


Fig. 2: Question forms in the input in Austrian L2 English CLIL lessons (%)



The Syllabification of Geminates: Evidence from Segmental Anchoring

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This paper reports a production experiment of the Cypriot Greek pre-nuclear bitonal pitch accent (L*+H) that investigates two hypotheses: (i) the distance between the L and H tonal targets is fixed and (ii) the L and H tonal targets are associated to specific acoustic landmarks of the segmental string such as the stressed syllable onset, the syllable nucleus, and the pre-stressed sonority minimum.

The results showed that the L tonal target aligns with the syllable onset, regardless whether this remains undetermined due to assimilation and post-lexical gemination. Furthermore, the H tonal target aligns with the right edge of the post-stressed syllable, contrary to the H tonal target of the nuclear pitch accent that aligns with the stressed vowel.

These results, which underline the systematic nature of tonal alignment, are difficult to accommodate in models that view tonal structure independently from the phonological structure.

Specific Language Impairment in CG: Diagnostic Issues

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Although language acquisition is one of the most robust achievements of early childhood not all children acquire language fully or even effortlessly. Specific language impairment (SLI) is the most common and well studied form of a developmental language disability. The current study investigates the linguistic development of Greek Cypriot children with SLI, an impairment that has not yet been researched in depth for Cypriot Greek (CG).

The investigation of Greek Cypriot children is imperative because description, diagnosis, and intervention cannot be based on findings from other languages or varieties which have different properties. Likewise, all first language assessments must be appropriate for children who acquire the particular variety as their first language — in this case, CG. A great need to avoid the confusion between language variations attested in dialectal situations and those which are the results of language impairment is appeared.

Recently, the interest in issues with regards to diagnosis has been increased with regard to the available standardized tests concerning their diagnostic accuracy (e.g. Conti-Ramsden et al., 2001; Plante & Vance, 1994; Pankartz, Plante, Vance & Insalaco, 2007; Thordardottir et al., 2010). The tests which were designed to assess the language abilities of children speaking a standard variety have been (rightly) criticized, and the necessity for developing appropriate diagnostic tools which would differentiate the dialectal variation from language impairment has emerged. Furthermore, these tests are essential to take into account linguistic characteristics of the dialect under evaluation and potential cultural differences (Oetting & McDonald, 2002; Washington & Craig, 2004).

This project investigates the utility of existing tools in the diagnosis of SLI in CG. Thus, a set of existing non-standardized tools was used to identify Greek Cypriot children with SLI. This battery of tests comprised the following tools, which were all available in (standard) Greek: [A] the Developmental Verbal IQ Test (Tsimplici & Stavrakaki, 2000), the Peabody Picture Vocabulary Test (Dunn & Dunn, 1981), [B] the Bus Story Test (Renfrew, 1997), [C] (vocabulary and phonemic discrimination of) the Athina Test (Paraskevopoulos et al., 1999), and [D] the Word Finding Test (Vogindroukas et al., 2009). Two groups of “monolingual” Greek Cypriot children participated in this study: 14 children with SLI ranging from 5 to 9 years of age and 22 age-matched typically developing children.

Results showed that the existing tools can be successfully used to identify Greek Cypriot children with SLI. Tests cannot only measure what they set out to do, but they are also sensitive enough to distinguish children who are language-impaired. Moreover, the testing battery is a reliable indicator of language characteristics among individuals. However, adaptation to CG is needed, given that due to cultural and linguistic differences, not all the stimuli from the Standard Greek versions were equally appropriate for Greek Cypriot children. Overall the study can promote theoretical discussion around SLI as well as it can provide information to speech and language therapists that can be used in diagnosis and intervention monitoring.

Patterns in Article Production by Learners with Non-DP L1

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For many years, three questions have been at the centre of generative approaches to second language acquisition: The argument from the poverty of the stimulus (APS); parameter (re)setting; post-critical-period access to UG. L2 acquisition of the English article system by learners whose L1s lack articles (hereafter L₂AA) is of central importance for several reasons.

First, the NP/DP split may be one of the most fundamental in comparative linguistics. Bošković (August 2012) identifies 20+ language phenomena that, he argues, follow from the NP/DP split (to a first approximation, the difference between languages with and without article systems). Secondly, L₂AA directly challenges the APS. It is widely recognised that article acquisition is one of the most difficult aspects of L2 learning. Even advanced learners do not use articles in the same way that native speakers do, and intermediate learners perform at levels around chance, yet input is abundant. English articles are the highest-frequency items in the language: *the* is the single most frequently occurring item in the British National Corpus, accounting for over 6% of all items; *a/an* is in fifth place at about 2.5%. Thirdly, the errors that L2 speakers make are not random, but map very predictably onto combinations of semantic/pragmatic factors. This has been demonstrated empirically across a wide range of L1 groups: Japanese, Korean, Serbo-Croatian, Russian, Mandarin and Thai. Fourthly, the patterns of L2 errors allow quite precise distinctions to be made between the semantic and pragmatic factors that are influencing acquisition, though these have not been explicitly explored in the empirical literature. Finally, L₂AA provides an ideal heuristic for investigating Chomsky's 'three factors' in L2 acquisition. This paper will, based on a series of empirical acquisition studies involving Thai L2 learners, explore these themes in detail.

First, cross-sectional analysis of Thai learners at different levels of overall English proficiency (n=80) will demonstrate that there is no evidence for a 'phase transition' in acquisition patterns. Rather, at every proficiency level, differences between sentence types were significant, as predicted, at the 0.01 level. In the highest groups, (IELTS>7; n=9), there was no statistically significant difference with a Native Speaker Control Group on non-conflict sentence types, while significant differences persisted with conflict types at the 0.01 level. This argues against binary parameter resetting (Ionin, Ko, & Wexler, 2004); typological evidence against such a binary parameter will also be presented.

A second, longitudinal study will show that exposure to large volumes of specifically-tailored input, unaccompanied by any explicit teaching, leads to radical changes in the patterns of L2 errors. In a group of advanced Thai L2 learners (n=27), no significant change in accuracy on non-conflict tokens was recorded, while the change (improvement) in accuracy on conflict tokens over the 14 weeks of the experiment was significant at the 0.01 level. By the end of experiment, no statistically-significant difference between token types remained. However, long-term follow-up (six months after the end of the experiment) showed that learners had reverted to lower levels of accuracy.

The findings will be discussed in terms of cross-linguistic variation in definiteness and specificity, and related to the FLN and FLB.