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The International Conference on Greek Linguistics is a biennial meeting on the study and analysis of Greek (Ancient, Medieval and Modern), placing particular emphasis on the later stages of the language.

## PROCEEDINGS OF THE ICGL12 IIPAKTIKA TOY ICGL12

Thanasis Georgakopoulos, Theodossia-Soula Pavlidou, Miltos Pechlivanos, Artemis Alexiadou, Jannis Androutsopoulos, Alexis Kalokairinos, Stavros Skopeteas, Katerina Stathi (Eds.)

### PROCEEDINGS OF THE 12<sup>TH</sup> INTERNATIONAL CONFERENCE ON GREEK LINGUISTICS

### ΠΡΑΚΤΙΚΑ ΤΟΥ 12 $^{\text{OY}}$ ΣΥΝΕΔΡΙΟΥ ΕΛΛΗΝΙΚΗΣ ΓΛΩΣΣΟΛΟΓΙΑΣ

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Στη μνήμη του Gaberell Drachman (†10.9.2014) και της Αγγελικής Μαλικούτη-Drachman (†4.5.2015) για την τεράστια προσφορά τους στην ελληνική γλωσσολογία και την αγάπη τους για την ελληνική γλώσσα

#### ΣΗΜΕΙΩΜΑ ΕΚΔΟΤΩΝ

Το 12ο Διεθνές Συνέδριο Ελληνικής Γλωσσολογίας (International Conference on Greek Linguistics/ICGL12) πραγματοποιήθηκε στο Κέντρο Νέου Ελληνισμού του Ελεύθερου Πανεπιστημίου του Βερολίνου (Centrum Modernes Griechenland, Freie Universität Berlin) στις 16-19 Σεπτεμβρίου 2015 με τη συμμετοχή περίπου τετρακοσίων συνέδρων απ' όλον τον κόσμο.

Την Επιστημονική Επιτροπή του ICGL12 στελέχωσαν οι Θανάσης Γεωργακόπουλος, Θεοδοσία-Σούλα Παυλίδου, Μίλτος Πεχλιβάνος, Άρτεμις Αλεξιάδου, Δώρα Αλεξοπούλου, Γιάννης Ανδρουτσόπουλος, Αμαλία Αρβανίτη, Σταύρος Ασημακόπουλος, Αλεξάνδρα Γεωργακοπούλου, Κλεάνθης Γκρώμαν, Σαβίνα Ιατρίδου, Mark Janse, Brian Joseph, Αλέξης Καλοκαιρινός, Ναπολέων Κάτσος, Ευαγγελία Κορδώνη, Αμαλία Μόζερ, Ελένη Μπουτουλούση, Κική Νικηφορίδου, Αγγελική Ράλλη, Άννα Ρούσσου, Αθηνά Σιούπη, Σταύρος Σκοπετέας, Κατερίνα Στάθη, Μελίτα Σταύρου, Αρχόντω Τερζή, Νίνα Τοπιντζή, Ιάνθη Τσιμπλή και Σταυρούλα Τσιπλάκου.

Την Οργανωτική Επιτροπή του ICGL12 στελέχωσαν οι Θανάσης Γεωργακόπουλος, Αλέξης Καλοκαιρινός, Κώστας Κοσμάς, Θεοδοσία-Σούλα Παυλίδου και Μίλτος Πεχλιβάνος.

Οι δύο τόμοι των πρακτικών του συνεδρίου είναι προϊόν της εργασίας της Εκδοτικής Επιτροπής στην οποία συμμετείχαν οι Θανάσης Γεωργακόπουλος, Θεοδοσία-Σούλα Παυλίδου, Μίλτος Πεχλιβάνος, Άρτεμις Αλεξιάδου, Γιάννης Ανδρουτσόπουλος, Αλέξης Καλοκαιρινός, Σταύρος Σκοπετέας και Κατερίνα Στάθη.

Παρότι στο συνέδριο οι ανακοινώσεις είχαν ταξινομηθεί σύμφωνα με θεματικούς άξονες, τα κείμενα των ανακοινώσεων παρατίθενται σε αλφαβητική σειρά, σύμφωνα με το λατινικό αλφάβητο· εξαίρεση αποτελούν οι εναρκτήριες ομιλίες, οι οποίες βρίσκονται στην αρχή του πρώτου τόμου.

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### NARRATIVE ABILITIES: MAINING RUSSIAN-GREEK BILINGUAL CHILDREN IN CYPRUS

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#### Περίληψη

Η πιλοτική έρευνα που παρουσιάζεται εδώ εξετάζει την παραγωγή και κατανόηση αφηγηματικού λόγου σε 23 παιδιά, δίγλωσσα στην Ρωσική και την Κυπριακή, ηλικίας από 3 μέχρι 11 χρονών. Τα δίγλωσσα παιδιά είχαν τα ίδια αποτελέσματα και στις δυο γλώσσες και σημείωσαν καλύτερη επίδοση στην επαναφήγηση παρά στην πρωτότυπη παραγωγή αφηγηματικού λόγου. Η σύγκριση των δίγλωσσων παιδιών με τα μονόγλωσσα παιδιά με την Ελληνική ως μητρική γλώσσα και τα μονόγλωσσα παιδιά με την Ρωσική ως μητρική γλώσσα δείχνει ότι τα μονόγλωσσα παιδιά υπερέχουν κυρίως σε ότι αφορά την δομή της ιστορίας και τους όρους που εκφράζουν την εσωτερική κατάσταση.

Keywords: bilingualism, communicative competence, macro-structure, narrative, retelling, telling

#### 1. Introduction

The present study investigates the narrative performance of bilingual children in both their languages, Russian and Greek. Concretely, as the research takes place in Cyprus, characterized by diglossia between the local variety and the standard language (for an overview see e.g. Rowe & Grohmann 2013), Cypriot Greek (CG) was assessed where

relevant. The relevance is three-fold. First, the local variety spoken in a linguistic environment where the official language is Standard Modern Greek (SMG) means children grow up to become '(discrete) bilectal' speakers (Rowe & Grohmann 2013); for narrative abilities, it would be interesting to be able to distinguish between monolingual—mono(dia)lectal and monolingual—bilectal children. Second, it will be instructive to compare bilingual—mono(dia)lectal children with those participating in our research, bilingual—bilectal ones; they are arguably simultaneously bilingual, yet sequentially bilectal (for discussion, see Grohmann & Kambanaros 2016). Third, the data of our particular group of Russian—Greek bilingual bilectals can be compared to that of their peers acquiring either language monolingually (irrespective of dialectal issues); these would be children from Russia and Greece, respectively. (A fourth possible relevance is briefly presented right below.)

For the purposes of this research, narrative performance is measured by macrostructure in telling and retelling conditions, along the dimensions of story structure, structure complexity, and internal states terms. Other factors that have already been partially considered (and will be expanded in the future), include children's language competence, language of narration, executive control, chronological age, and schooling level, which have all been identified as relevant in the bilectal context (Grohmann & Kambanaros 2016).

The main research questions of the larger research agenda that this paper aims to contribute to are the following:

- 1) With respect to narratives, do bilingual-bilectal children perform differently in each of their languages, Russian and (Cypriot) Greek?
- 2) Does mode of narration (telling/retelling) influence story structure, structural complexity, and the production of internal state terms by bilingual children—in either language or even both?
- 3) Are the bilingual children's narrative productions similar to or different from monolingual children, language-impaired children, and other bilinguals with different language pairs?
- 4) What role do variables such as age, schooling, level of proficiency, cognitive abilities, and executive functions play in bilingual children's narrative performance?

What we report next is the result of a pilot study. It is meant to pave the way for a larger-scale cohort research project, which is why we chose (few) participants for all

age groups ranging from as low as 3 to as old as 11 years of age. One rationale is, of course, to test the validity of the tool used in order to address the four questions. That is, we want to use this pilot study to discern whether the tool works for this particular bilingual population of children acquiring Russian and (Cypriot) Greek, whether it can differentiate bilingualism proper (Russian, Greek) from bilectalism (CG, SMG), and whether it is age-appropriate across a wide range. From this perspective, a different way to present the data would be as many different single-case studies, namely one for each of the 23 participating children. However, we believe that such a presentation would turn out even more complex, and confusing for the reader, so we decided to present it as if it were a bone fide cohort study—with the added wrinkle that, due to very low participant numbers for most of the age groups, the effect is arguably more cosmetic than methodological.

#### 2. Method

The participants were 23 Russian–Cypriot Greek simultaneous bilinguals (11 girls). Their age ranged from 3 to 11 years, though participants numbers for most of the age groups were very small indeed: 3;1 (N=1), 4;8 (N=2), 5;0–5;6 (N=5), 6;0–6;11 (N=9), 7;11 (N=2), 9;5 (N=2), 10;11 (N=1), and 11;4 (N=1). At the time of testing, they attended kindergarten, pre-primary, and primary school classes. All children came from mixed-marriage families, with a Greek Cypriot father and a Russian mother, in a middle-class setting, and were randomly recruited across Larnaca and Nicosia.

The data were collected in line with the 2011 guidelines from COST Action IS0804, prior to the final protocol for the LITMUS-MAIN (Gagarina et al., 2015). This narrative tool was used to elicit stories from bilingual children. The version of the MAIN used (Gagarina et al., 2012), as the final one, consists of four comparable six-picture stories. Two of the picture sequences were used for the telling condition and another two for retelling. For the telling mode, the Baby Goats and the Hungry Cat stories were chosen; children were asked to tell the experimenter a story based on the six pictures. For the retelling mode, the Baby Birds and the Naughty Dog stories were chosen; children were asked to first listen to the story told by the experimenter and then retell it. There was mutual sharing of the visual context and stimuli between child and examiner. During the testing both the child and the examiner could see the pictures. Each child was tested individually in their home environment.

Telling mode can help to examine independent story formulation abilities by a child, as there is no scaffolding effect or example of a story as in the retelling mode, though the latter is associated with verbal memory, attention, and story recall rather than just repetition of the narrative stimulus and can be controlled for the length, complexity, and content of the story.

All participants were also tested on a battery of additional tests: the Diagnostic Verbal IQ Test (Stavrakaki & Tsimpli 2000), adapted to CG from the Standard Modern Greek original (Theodorou 2013), the Russian Proficiency Test for Multilingual Children (Gagarina et al. 2010), and several tasks assessing executive functions (digit span test, word span test, fluency test, Raven's Coloured Progressive Matrices). A parental questionnaire focusing on participants' socio-economic and family language background was also used (Gagarina et al. 2010).

All data were recorded, transcribed, and analyzed in terms of story structure, structural complexity per episode, and internal state terms. The analysis of story structure includes setting, mental state as initiating event, goal, attempt, outcome, and mental state as reaction (three episodes in total). Structural complexity per episode (episode completeness) focused on whether children used Goal–Attempt–Outcome (GAO) in every episode. Internal state terms denote the types of mental state terms used by bilingual children in their narrative production.

Since Premack & Woodruff (1978), mental or internal state terms (ISTs) have been argued to relate to theory of mind and cognitive abilities. In particular, "[t]he use of ISTs provides important information about the narrator's awareness of characters' mental states, motivations, intentions and goals (Nippold et al. 2005)" (Gagarina et al. 2015: 244). There are different types of ISTs, which can be classified into six categories: perceptual verbs (such as see, hear, feel, smell), physiological adjectives (thirsty, hungry, tired, sore), predicates expressing consciousness (alive, awake, asleep), emotional adjectives (e.g. sad, happy, angry, worried, disappointed), mental predicates (e.g. want, think, know, forget, decide, believe, wonder, have/make a plan), and verbs of saying or 'linguistic verbs' (e.g. say, call, shout, warn, ask).

#### 3. Results

The analysis of the bilingual children's narrative production showed that with regard to narrative abilities (macro-structure: story structure, structural complexity, and

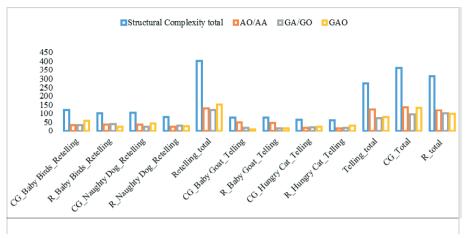
ISTs), they performed similarly across their two languages (slightly better for CG). Their performance was also higher on the retelling than the telling condition. With respect to story structure for the four stories, within and cross-language comparison showed that the bilingual Russian–CG children performed better in retelling than in telling. For the telling mode, there was no crucial difference between the Russian and CG productions of the two stories, Baby Goat and Hungry Cat. For retelling of the Baby Bird story, the bilingual children had a slightly better production in CG than in Russian, but the opposite held for the Naughty Dog story.

As concerns structural complexity, qualitative organization of episode structure, and macro-proposition that compose the plot (GAO), bilingual Russian–CG children had more structural complexity in retelling than in telling (total structural complexity, GAO, and corresponding incomplete episodes GA/GO); they also performed better in CG than in Russian. This is shown in graphs 1 and 2 on next page respectively.

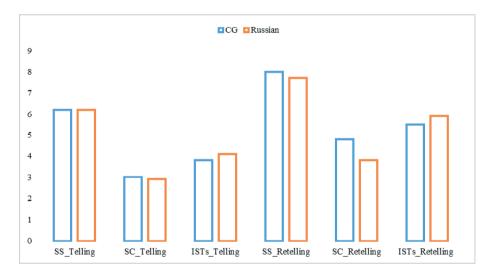
Note that due to the small participant numbers across too many age groups, the results may not seem very helpful, but they are indicative, corresponding to mean performance of all children combined, from the single 3- to the single 11-year-old. The above-mentioned different single-case studies approach might work better, thus presenting each child's scores individually. However, current space restrictions do not allow such a detailed analysis, which is why we restrict ourselves to reporting the data as if collected from a comparable cohort.

With respect to story structure measure, the maximum score was 17, one point was given for each of the relevant components of the story structure: setting, internal state term as initiating event, goal, attempt, outcome, and internal state as reaction in three episodes of the story. Structural complexity measured the ability of bilingual children to generate a complete episode, with three propositions, a goal, an attempt, and an outcome, sequenced in a logical way, and thus to develop logical schemas or structured event complexes. The participants were given 3 points for the complete episode (GAO), 2 points for incomplete episodes (GA/GO), and 1 point for partial event sequences (AO, AA). The use of ISTs, categorized into perceptual state terms, physiological state terms, consciousness terms, emotional terms, mental verbs and linguistic verbs, and verbs of saying and telling, examined theory of mind abilities of bilingual children, their understanding of the story and awareness of the intentions and goals of the story protagonists.

Data analysis further shows that the bilinguals used more ISTs in retelling than in telling. Specifically, they used more perceptual state terms, emotion terms, and mental

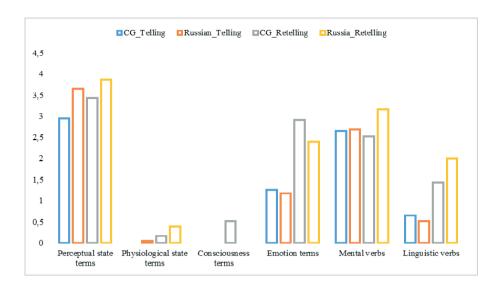


Graph 1 | Story complexity: telling vs. retelling

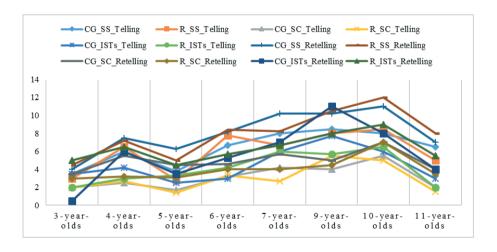


Graph 2 | Story structure (SS), structural complexity (SC), and internal state terms (ISTs) (means)

verbs rather than psychological, consciousness terms, and linguistic verbs, as shown in graph 3. According to a paired samples t-test, a statistically significant difference shows between ISTs in CG telling and retelling mode (t(21)=4.577; p=.000) and between ISTs in Russian telling and retelling mode (t(21)=4.902; p=.000).



Graph 3 | Internal state terms: telling vs. retelling (means)



Graph 4 | Story structure, structural complexity, and ISTs (telling vs. retelling)

These findings may be more meaningful than the above. For starters, regardless of age (from 3 to 11 years), certain ISTs were used never, others very rarely, and yet others more frequently. Graph 3 also highlights similarities and potential differences between

the two languages. In order to explore this further, however, an individual approach would have to be taken, which cannot be done here.

As expected, the bilingual children's narrative abilities in CG improve with age, although the numbers of participants in each age group are too low to generalize this (beyond 5- and 6-year-olds, perhaps); there is no such clear picture for Russian. Graph 4 presents mean scores for each age group. Note that all children were tested only on production, not comprehension.

Since this graph breaks the participants down into age groups, there is some comparability among them. We thus yield a first indication of what age-related differences in performance could look like. Due to the low number of participants, it does not make sense, though, to dwell on this further; more data from more participants are needed for each age group—except, perhaps, the 5- and 6-year-olds: There is a noticeable level of improvement from age 5 (N=5) to age 6 (N=9) for each level of macro-structural analysis as well as for retelling over telling, and for both languages.

Next, we compare our data from bilingual Russian–CG children with available data on monolingual Russian- and monolingual/bilectal CG-speaking children (Gagarina et al. 2012), both with typical language development (TLD) and with specific language impairment (SLI). Looking at the narrative productions in both modes (telling and retelling), monolinguals outperform their bilingual peers mainly in story structure, as shown in table 1. (Note that we only use a subset of the bilingual participants (total N=18), somewhat matching the children's age from the studies compared to.)

The comparison of our data from bilingual Russian–CG children with available data on monolingual Russian children (Gagarina et al. 2012), both with TLD and with SLI, showed that monolingual Russian children with TLD outperform their bilingual peers on story structure (telling and retelling), while the bilingual Russian–CG children scored higher on internal state terms (telling and retelling). Bilingual Russian–CG children were closer to monolingual Russian children with SLI in terms of story structure, but they were better on internal state terms. This is shown in table 2 on the page after next, where, once more, we only employed a subset (total N=14) to match those children we have data for.

The same comparison for Greek showed that the bilinguals were better than the monolingual and bilectal peers in story structure and structural complexity but worse with respect to ISTs (telling and retelling). Monolingual children in Standard Modern Greek (SMG) from Greece, with TLD, performed higher than the bilingual children on story structure and ISTs (telling and retelling), but the bilingual children performed

TELLING/PRODUCTION RETELLING/PRODUCTION								
Language	Age	N	Story structure	Structural complexity	ISTs	Story structure	Structural complexity	ISTs
	Me	onoli	ngual childre	en with TLD (C	Gagari	na et al. 2012	: 96)	
Cypriot Greek	79.8	6	5.0	1.5	5.5	5.2	0.3	6.1
Russian	68	15	7.3	N/A	1.3	14.8	N/A	2.7
Greek	73.0	5	9.8	1.8	5.9	11.5	1.4	6.6
			1	Bilingual child	ren			
Cypriot Greek	63.8	5	3.8	1.7	2.5	6.3	4.5	3.5
Russian			2.8	1.4	3.3	5	3.1	4.5
Cypriot Greek	75.4	9	6.7	3.2	3	8.2	4.6	5.3
Russian			7.8	3.3	4.2	8.4	4	5.7
Cypriot Greek	95	2	8	4.2	6	10.2	5.7	7
Russian			6.7	2.7	6	8.25	4	6.7
Cypriot Greek	113	2	8.5	4	7.7	10.2	5	11
Russian			8	5.5	5.7	10.5	4.5	8
Monolingual children with SLI (Gagarina et al. 2012: 96)								
Russian	68	9	6.7	N/A	1.9	6.7	N/A	2.1
Greek	100.6	18	3.9	0.4	2.8	5.8	1.0	5.5

Table 1 | Bilingual TLD vs. monolingual TLD and SLI (telling vs. retelling)

better on structural complexity. Overall, the bilingual children with TLD performed better than the monolingual SMG-speaking children with SLI (see table 1 again).

TELLING/PRODUCTION						RETELLING/PRODUCTION		
Language	Age	N	Story structure	Structural complexity	ISTs	Story structure	Structural complexity	ISTs
Monolingual children with TLD (Gagarina et al. 2012: 96)								
Russian	68	15	7.3	N/A	1.3	14.8	N/A	2.7
Bilingual children								
Russian	63.8	5	2.8	1.4	3.3	5	3.1	4.5
Russian	75.4	9	7.8	3.3	4.2	8.4	4	5.7
Monolingual children with SLI (Gagarina et al. 2012: 96)								
Russian	68	9	6.7	N/A	1.9	6.7	N/A	2.1

Table 2 | Bilingual TLD vs. monolingual TLD and SLI (Russian: telling vs. retelling)

Not surprisingly, the bilingual children's narrative abilities in CG improve with their school grade, while (perhaps also not surprisingly) the opposite effect can be observed for Russian. Note that the bilingual children get more CG input than Russian, certainly in the school environment, and they live in a CG-dominant society in which arguably Greek language input increases with more schooling as well. However, we have not yet analyzed the data individually to test for the possible factor of age-(in)appropriate schooling levels for some of the child participants. It was found that, overall, the bilingual children's narrative abilities in CG and in Russian increase with their level of proficiency in each language. This was measured by Diagnostic Verbal IQ Test (DVIQ) scores for CG, using Theodorou's (2013) CG adaptation of the SMG original (Stavrakaki & Tsimpli 1999) and the Russian Proficiency Test for Multilingual Children (RPTMC) scores for Russian (Gagarina et al. 2010). Language proficiency is thus a good predictor of bilingual children's narrative abilities.

#### 4. Discussion

The aim of this study was to present the macro-structural analysis of narrative discourse abilities by bilingual children and to address the four defined research questions. We pursue four main questions in this research; at this stage, however, only a small set of children have been tested, which makes a concrete interpretation of the findings difficult, to put it mildly. But we can discern tendencies, which is why we did test at least one child from each relevant age group.

The first question concerns the possible influence of language on narrative productions by bilingual children. The analysis of the data showed that there is no significant language effect with respect to macro-structure: The bilingual Russian–CG children performed nearly the same for story structure, episode complexity, and internal state terms across both languages, though perhaps with a slight advantage for CG.

The second question concerns the effect of narration mode on the bilingual children's narrative production (story structure, structural complexity, and ISTs). According to Boudreau (2008), narrative performance is influenced by task demands and elicitation frameworks. The results revealed that the mode of narration influences narrative production, both in Russian and in CG. This is in line with previous findings that retelling elicits longer and more detailed narratives with a more complex story structure than the telling mode (e.g. Schneider et al. 2006).

The third research question focused on the difference between typically developing bilingual-bilectal Russian–CG children and monolingual children, both with typical language development and with SLI. The analysis of the data showed that monolingual children perform better than bilingual children, in particular with respect to story structure and structural complexity, but not on ISTs. Analysis of internal-state language in children's narratives arguably reflects their theory of mind abilities as well as understanding and awareness of intentionality and goal-directed behavior of protagonists (see e.g. Nippold et al. 2005). Macro-structure is universal and language-general, reflecting general narrative discourse competence (Pearson 2002). Bilingual children lag behind their monolingual peers in terms of structural complexity, as they are not able to produce complete and well-formed episodes; they also lack an understanding of narrative schemata, causality, perspective-taking, ability to plan, and meta-awareness (Westby 2005).

Our fourth and final research question aimed at addressing the influence of such variables as age, schooling, level of proficiency, cognitive abilities, and executive func-

tions on narrative abilities of bilingual children. It was found that some of the variables are more important than the others. There is an obvious effect of chronological age and schooling, as would be expected from any set of typically developing children. Arguably the same can be said for language proficiency level as a factor for narrative production by bilingual children in their respective languages.

#### 5. Conclusions

In this paper, we focused on narrative macro-structure in the narrations by bilingual children and how it may be influenced by such factors as language, task, age, schooling, proficiency, and cognitive abilities. We understand macro-structural analysis to deal with higher-order hierarchical organization of the discourse which includes story structure, episode structure, and internal state terms.

It was found that the bilingual children performed similarly across their two languages (slightly better for Cypriot Greek), which can be explained by shared cognitive ability in the two languages. Their performance was higher in retelling than in telling. Cognitive abilities and executive functions tend to influence narrative macro-structure of bilingual children as well. They used more internal state terms in the retelling mode, which can be explained by a scaffolding effect, and also perceptual state terms, emotion terms, and mental verbs. The perceptive and productive lexicon in Russian is correlated with the production of ISTs (telling and retelling). Bilingual children had more structural complexity in retelling than in telling, and more so in CG than in Russian. Statistical analysis showed that age, schooling level, and language proficiency affect bilingual narrative ability.

Due to the increasing number of multilingual children in Cyprus, it is important to assess their linguistic and cognitive development and to distinguish early between typically developing and language-impaired children. The study of language acquisition norms for typical language development, language delay, and impairment can help prevent misdiagnosis of bilingual children.

The limitation of the study is the small number of participants. It is necessary to increase the number of children tested for each age group. This study presented only the macro-structure analysis, a further study is needed to compare micro- and macro-structure in narrative productions of bilingual children. Also, both typically developing and language-impaired bilingual children should be tested in order to detect

possible language impairment in bilingual population as early as possible, to evaluate their language, and to provide treatment.

It is important to assess bilingual children's narrative ability, their linguistic performance of discourse level in both of their languages. This assessment should be combined with a thorough evaluation of their cognitive skills, syntactic, morphological, and lexical (receptive, perceptive) abilities. Further research on narrative abilities of bilingual populations is important, as it can provide insight into their communicative competence, literacy, and academic success.

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