Narrative Skills in Monolingual and Bilingual Children: An Exploratory Study

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Abstract

Narratives are a self-initiated, self-controlled form of discourse. As such, narratives are an important part of the language assessment of older school-age children and adolescents because they provide an uninterrupted sample of language that the child or adolescent modifies to capture and hold the listeners interest (Crais & Chapman 1987; Culatta, Page & Ellis 1983; Hewitt & Duchan 1995; Johnson, 1982b; Liles, 1987, Scott 1988b). The aim of the present investigation was to study and explore the narrative skills in monolingual Malayalam speaking and bilingual Malayalam-English speaking children in different task environments. 60 monolingual and 60 bilingual children were selected for the purpose of the study. The ASLPR rating scale was used for the purpose of selecting with the help of the teachers. Narratives were collected from both the groups across different tasks i.e. book task and picture task. The data collected was transcribed followed by reliability measures. The data was analyzed for productivity measures and grammaticality measures. The data was then subjected to statistical analysis. The results indicated significant difference between monolinguals and bilinguals in their narrative production. Bilinguals performed better in their narration than monolinguals by producing more cohesive and grammatically complex utterances and the information content in the narration of bilingual children was better when compared to monolinguals which again supports the hypothesis that bilingualism aids better cognitive linguistic and metalinguistics abilities in these children. Clinical implications have been discussed.

Introduction

Language is a challenging and a complex field. Many researchers find it fascinating and there are some areas in language, which requires further exploration and experimentation. Child bilingualism is one such field. The difference in language and cognitive abilities of a monolingual and bilingual child is well documented in the literature.

The studies of monolingual and bilingual cognitive and metalinguistics development were shown to have differences. Bilinguals demonstrated a greater degree of cognitive flexibility and increased sensitivity to linguistic and communicative cues which are important aspects of metalinguistics ability. Pattnaik and Mohanty, (1984), Cummins and Mulchay, (1978) found that the bilinguals, with their analytical orientation to language, are more sensitive to lexical, surface structure ambiguities. Thus these studies highlight the fact that bilingual children have a better linguistic and cognitive linguistic ability.

The development of language in monolingual and bilingual children is expected to follow similar pattern of acquisition. For example it has been reported that general acquisition from unmarked to marked linguistic structures is essentially same both for monolingual and

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bilingual children. However, mixed input to bilingual children might open a different path of language development.

Bilingualism has become a natural ingredient of everyone's life and communication today. The world's estimated 5000 languages are spoken in the world's 200 sovereign states. Thus speaking a language other than one's mother tongue has become a necessity for communication among citizens. In fact, David Crystal, 1977 estimates that two - third of the world's children grow up in a bilingual environment. The process of globalization, which is progressing in a significant rate, will in turn increase the extent and effects of bilingualism. One can conclude that bilingualism is currently the rule throughout the world and will become increasingly so in the future.

Bilingualism is a very widely prevalent phenomenon, which is defined and described in terms of categories, scales, dimensions etc. Due to its multifaceted nature different researchers have defined bilingualism in their own unique ways. Generally speaking, earlier definitions followed very strict criteria in terms of language proficiency by restricting bilingualism to equal mastery of two languages while later ones have allowed much greater variations in competence.

Bilingualism in India is different compared to western countries. According to Ferguson (1968) the majority of bilingualism persistent in western world is constituted of the acculturating immigrant and his offspring. However India has been a multilingual country right from the beginning and thus presents a different picture.

Early bilingualism and its effects on overall development of a child is one of the most recently researched areas in the recent times, English bilingualism being one of them. Hence in a successive bilingual child who at later part of life may be considered equally proficient in both languages (L1 and L2), difference can be observed both in their L1 and L2 due to influence of the language structures of each language during the process of acquisition of mastery.

Systematic investigations of child's bilingualism began approximately one hundred years ago and during the early history of this type of research, in the monumental work by Leopold (1939-49). The bilingual child has attracted the attention of a rapidly increasing number of research studies, especially over last 25 years. One important result of these investigations is that they have established beyond reasonable doubt that children acquiring two or more languages from birth are able to differentiate the grammatical system of their languages from very early age and without apparent effort. The subsequent course of acquisition proceeds through the same developmental phase as those observed in the respective monolingual children that could be wrongly considered abnormal during either language assessment. Thus a bilingual child will differ in his L1 and L2 as these are studies which report that language structure of L1 can influence L2 and vice-versa. Such studies may provide important dimensions in terms of specific difference or areas of deficit if any as seen in monolingual and bilingual children thus aiding the clinician to provide appropriate intervention and also may provide future directions with regard to modifications of literary activities in these two groups of children.

The researchers in bilingualism have been concerned regarding the issues of assessment in bilingual population because most of the tests that are designed are based on children exposed to one language and assessing the bilingual population with the norms developed by such designs will not be reliable and valid. This may be leading to misconceptions about the language development and abilities of a bilingual child.

Considering the prevalence of bilingualism in the world's population the number of children who are raised with two languages and proportions of student who enter school without speaking the instructional language, the developmental consequence of this experience have been ignored. There are various pieces of literature reporting difference in performance in bilingual children in terms of their language. For example, children in different communities may exhibit difference in discourse production, particularly as related to narrative i.e., differences in story length the amount of descriptive information given, the personal relationship of characters, the sequence of action and predominant verb tense (Berman & Slobin, 1996). Whether these differences are a matter of variation related to bilingual language proficiency, linguistic structural differences or cultural differences related to acquisition of each language is not clear.

Traditionally speech-language pathologists have relied heavily on grammatical criteria for diagnosis of language disorders (Muma, Webb & Muma 1979). Traditional criteria use tests of surface morphology (for e.g., in English, inflectional morphemes such as plurals, possessives, third person singular markers on verbs, noun-verb agreement irregular verb forms and past tense marking). For over a decade there have been increasing rumblings of discontent with testing that focuses too narrowly on surface grammar while neglecting pragmatic communication aspects of speech and language use (Abkarian 1977; Baratz 1969; Labov 1970, 1976; D.K.Oller 1973). It has been suggested that perhaps the inclusion of pragmatic criteria would activate come of the difficulties.

However surface elements continue to play important diagnostic criteria, but in case of bilingual children, they do nonetheless present a special ambiguity. Applied linguistics now generally accepts the hypothesis that many errors of grammar committed by second language learners are indeed normal and they probably reflect phases of just language acquisition (Richards 1974; Schumann & Stenson 1974). Hence how can the diagnostician be sure that the grammatical deviations found in speech samples generated by bilingual children are not attributable to normal inter language processes, thus, necessitating assessment of language proficiency in both the language of a bilingual child and also to develop a different criteria or norm for these children, taking into consideration their difference in language performance (Chengappa, 2001).

For the purposes of identifying a communication disorder it is essential to engage children in discourse that is challenging enough to promote the use of more advanced language abilities as well as to reveal linguistic vulnerability. School age children are expected to comprehend and produce a range of discourse types (Nelson 1993; Norris 1997; Scott 1994; Westby 1994). These different discourse types included during assessment practices present in children speaking different languages may reveal conditions under which language production problems arise. There are different discourse types. For e.g. unplanned discourse, planned discourse, text level discourse, conversational discourse, narrative discourse and expository discourse. Not surprisingly, children produce better narrations in story retelling tasks than when required to generate their own story. These narrations can be an important assessment protocol. However assessment in bilingual children should be done with caution because as mentioned earlier, their L1 is influenced by their L2 and vice versa and hence pattern of narrative skills in both languages of a bilingual child need to be studied.

Differences in narrative skills have been noted even when the tasks used are different, for e.g., a book task, picture tasks or an auditory stimulus. It has been demonstrated that elementary students with and without language impairments used more compound structures when retelling stories without the support of pictures and when retelling stories to new listeners. That is, when picture supports were available to provide contextual support for the

narration, the children rely as much on these linguistic skills to convey the message. In sum, the story retelling protocol was intended to reveal the children's' optimal narration performance in a controlled input task. A body of literature also recalls that there are differences in narrative performances among various cultural/ethnic and organization.

Narration:

Narratives are a self-initiated, self-controlled form of discourse. As such, narratives are an important part of the language assessment of older school-age children and adolescents because they provide an uninterrupted sample of language that the child or adolescent modifies to capture and hold the listeners interest (Crais & Chapman 1987, 1997; Culatta, Page & Ellis 1983; Hewitt & Duchan 1995; Johnston, 1982b; Liles 1985a, 1985b, 1987, Scott 1988b).

Most of the studies that investigated narration in monolingual and bilingual children have focused on developmental trend (Sutton-Smith, 1986; Bloom, 1980). In the bilingual scenario, the studies have focused on comparing the child's two languages along with studying the developmental trend (Christina & Elizabeth, 2004).

Studies on cognition, language & metalinguistic abilities in mono and bilingual children:

The views regarding how monolingualism and bilingualism affect a child's cognitive, linguistic, academic and metalinguistics performance has been changing. Since the beginning of the century a number of studies have compared the performance of bilinguals and monolinguals on a variety of tasks. These tasks included intelligence, creativity, flexibility and other skills related to school performance.

Researchers in the early period have revealed negative effects of bilingualism relative to monolinguals (Hirsch, 1926; Mead, 1927; Rigg, 1928 & Saer, 1922, 1923). However as Lambert (1977) has pointed out, earlier studies suffered from serious methodological flaws. The comparison groups - the bilinguals and monolinguals were not controlled for possible differences in social class, education, opportunity, socio-economic status and degree of bilingualism and monlingualsim and criteria for selecting bilinguals were not adequate. Lambert (1977) summarized his view of early studies stating that even though there were grounds for worrying about the adequacy of many of these studies, the results, nonetheless, were remarkably clear. The largest proportion of these investigations concluded that bilingualism had a detrimental effect on intellectual functioning; a small number found little or no relation between bilingualism and intelligence and two suggested that bilingualism might have favorable effect on cognition.

However, most of the later studies have shown positive cognitive effects of bilingualism and some also show negative consequences. A study by Tsushma and Hogan (1975) showed that the performance of Japanese-English bilinguals in grades four and five in verbal and academic skills was lower than monolinguals matched on non-verbal ability. Another study by Torrance, Gowan, Wu and Aliotta (1970) revealed that bilingual children performed lower in fluency and flexibility scales and higher in originality and elaboration, the difference being significant in the latter. Again these studies have severe methodological flaws like controlling proficiency level & SES. The first study which revealed positive effects of bilingualism and reversed the negative trend was by Pearl and Lambert (1962). The study sought to overcome the methodological flaws seen in the previous studies. The results were contrary to the earlier studies. The bilingual group performed better than monolingual group on the measure of non-verbal and verbal intelligence.

Based on two studies comparing Hebrew-English bilinguals (Ben-Zeev, 1972) and African-English bilinguals from South Africa, Ben-zeev (1977) concluded that these studies provided considerable evidence for the existence of an analytic strategy toward language on the part of bilingual children and some evidence for the generalization of this strategy to other kinds of structures. Bain & Yu, (1978) matched monolingual and bilingual children from Canada, France, Germany on IQ, SES, school performance, age, and sex and compared the two language groups on tasks of contemplative performance involving discovery of rules and their transfer to other problem solving situations. The bilinguals were able to discover rules and to apply them in new problem solving situations much more effectively compared to monolinguals. A number of other recent studies have also supported the positive findings by showing facilitative effect of bilingualism on general intellectual development (Bain, 1975), cognitive flexibility (Duncan & De Avita, 1979; Hakuta & Diaz, 1983: Kessler & Quinn, 1980) and the ability to analyze linguistic input and to be sensitive to interpersonal communication (Bain, 1975; Cummins & Mulchay, 1978 and Rueda, 1983). The studies also revealed that children who had become functionally bilingual through 'immersion" bilingual education program was significantly different from the control groups in measure of divergent thinking.

Indian studies:

Rao's (1975) study based on his doctoral dissertation at the university of Madras is perhaps the earliest study addressed to the issue of psychological effects of bilingualism in India. The study comprised of Telugu or Kannada children in Tamil medium primary schools in Madras identified by the school teacher as the bilingual sample. This study similar to earlier studies revealed negative effects of bilinguaslim. This study also suffered from severe methodological flaws.

Cognitive superiority of bilinguals have been revealed in many studies (Cummins & Mulchay (1978). This study investigated the perception of syntactic ambiguity by monolingual and bilingual group. The results reveal that bilinguals do attend to objective properties of language and analyze language with greater message sensitivity than mere effective decoding strategy. A similar study by Pattnaik and Mohanty (1984) also revealed that bilinguals are better than monolinguals on metalinguistics task. The interaction between the effects of bilingualism and development was not significant.

Due to lack of similar studies it becomes interesting to explore the narrative skills in monolingual Malayalam speaking children and bilingual Malayalam-English speaking children in the age range of 8-10 years coming from the same socio-economic status. It would be fascinating to study the patterns observed in both groups, to compare and contrast the findings, to postulate possible reasons whether these findings support or contradict the finding that bilinguals have better cognitive, linguistic and metalinguistics advantage over monolinguals. If difference is noticed this will help in further research into assessment and intervention considerations.

Hence, it becomes interesting to study the differences in narrative skills in monolingual and bilingual children and whether such findings support or refute the earlier findings that bilinguals are superior in their cognitive, metalinguistic and linguistic abilities than the monolinguals. The present study aims to compare the narrative production in monolingual and bilingual children having same language as mother tongue and how they differ from each other. This study may enlighten on what aspects these two groups differ or is there any added advantage like better cognitive skills when exposed to only one language or

when exposed two or more languages thus leading to superior narrative abilities in one group than the other.

Method

Participants:

Sixty bilingual Malayalam-English speaking children and 60 monolingual Malayalam speaking children in the age group of 8-8.11, 9-9.11, and 10-10.11 were selected for the purpose of the study.

Criteria:

No complaints of speech and language difficulties and no associated sensory deficits and neurological complaints. Australian Second Language Proficiency Rating Scale was used for controlling language proficiency. However, only a few aspects relevant for children were utilized form the scale. ASLPR describes language performance at nine points along the continuum from zero to native like proficiency in each of the four macro skills (speaking, listening, reading and writing). Children were categorized as bilingual if they got a rating of minimal survival proficiency in their second language in all the above-mentioned macro skills and monolingual if they got a rating of zero proficiency in them. The teacher was also consulted while rating these children.

Socio-economic status of both the groups was low. The selected children had only one of the parents working, who was employed in a semi-skilled occupation with income not exceeding 5000 rupees per month.

Both groups were matched for age, gender and educational status. Children in both the groups were selected from 3rd, 4th and 5th grades from two schools. Children from the bilingual group were selected from English medium school and children in the monolingual group were selected from a Malayalam medium school. Both the groups comprised of 10 children (5M & 5F) each in the 3 age groups.

Procedure:

Narratives were elicited from the children using two elicitation tasks i.e. a book task, wherein picture sequences of 'thirsty crow' story stuck on a book in a sequential order were shown to the child and picture stimulus, wherein a single picture depicting events of general Onam celebrations were shown to the child. Each child was given 45 minutes including 15 minutes of break.

Each child was shown the book stimuli and when the child finished looking he/she was asked to retell the story and the pictures were utilized to help generate the story. The examiner said 'can you tell me what is happening in this story?' to prompt the child. If the child stopped telling the story before getting through the picture, the examiner said 'tell me what is happening', with emphasis put on 'what'. Back channeling or repeating child's previous utterance was used whenever necessary to encourage the child to demonstrate active listening, such as 'yes' and 'go on" were used. For picture task, the children were given prompts in the form of picture for facilitating the child for a narrative task. The child was shown the picture and given the same verbal prompt as on book stimulus. Examiner would prompt with 'tell me a story about the celebration'. In order for children to complete the task,

the children were asked if they had stopped or if there was 'any more' he/she wanted to tell about the celebrations.

Analysis:

Transcription and coding:

All narratives were audio recorded using a portable tape recorder. Three bilingual (Malayalam-English) speaking speech language pathologists transcribed the narratives verbatim. The transcripts were segmented into communication units (C-units). A C-unit is defined as the independent clause plus its modifier.

Story grammar coding:

Transcripts were read and story grammar was coded by the inclusion of specific story elements as shown in the Appendix. Targeted elements in the story were scored as 0 or 1, for example, each element i.e., use of component settings initiating event etc. Overall complexity was derived for each story from least to most complex, using a rating scale of 0- 7. Story grammar element that consisted of code switching at word or phrase level and Malayalam influenced grammar was given full credit.

Productivity:

For both the tasks, productivity measures were calculated using C units, mean length of utterance per C-units, and total number of words for each story. The C-units were calculated by counting the number of independent clauses plus a modifier. Mean length was calculated by counting the number of morpheme per C-unit.

Grammaticality:

For both of the elicitation tasks each utterance was coded for grammaticality using the utterances codes: grammatical (G), ungrammatical (U) and influenced (I). Influenced utterances were considered grammatical when calculating percentage of grammatical utterances in a sample.

Reliability:

Story grammar was independently rated for the presence of seven story elements by two different raters using the procedures as described above, for all stories-rates indicated whether each story element (e.g., initiating event, attempt) occurred in the story. Point-to-point agreement for ratings was 91%. The remaining 9% disagreements were resolved by a third scorer for a 100% agreement. C-units in each story were re-recorded by a second rater as G, U and I with 94% point-to-point agreement overall after discrepancies were reduced by a third scorer.

Results

The results of both the groups were analyzed and compared for story complexity and productivity measures. Productivity measures included C-units, mean length of utterance per C-unit (MLU-C unit), total number of words (Nw's), grammaticality (GramLev) and story complexity, measures included for analysis of grammar story elements present in the story and overall rating of story complexity.

Productivity measures were also compared for the two tasks (i.e.) book task and picture task but the story grammar complexity was not compared across both the tasks as picture-task resulted only in general sequential production of general Onam celebrations. The results were discussed in terms of all the parameters in productivity measures, grammatical measures and as to what differences in terms of group, task and age effects were observed.

C-units:

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed. For both the tasks the main effect of group was significant at $P< 0.05$ levels but the pattern of difference was not uniform in both the groups. C-units were more in the bilingual group in the book task while the C-units were more in the picture task in the monolingual group. The main effect of age was not significant in both the groups, while there was significant interaction of groups and age observed for the story task at $P <0.05$ level of significance.

There is a linear pattern for age observed in the bilingual group i.e., as age increased there was reduction in the mean values as shown in Table 1, 2, 3 & 4. However, this linear pattern was not observed in monolinguals i.e., there was a decrease followed by increase in C units.

Table 1: Mean values, SD for C-units across groups for book task

Groups	Age	Mean	S.D
Monolingual	8	1.0000	.0000
	9	1.0000	.0000
	10	1.0000	.0000
	Total	1.0000	.0000

Table 2: F-values and significance value for across groups for C-units for the book task

Source	F	Significance
Group	1.303	.258
Age	.326	.723
Group * Age	.326	.723

Table 3: Mean, SD values across groups for C-units for picture task

Group	Age	Mean	S.D
Bilingual	8	7.6000	3.6878
	9	6.2500	1.5448
	10	8.0000	2.3664
	Total	7.3421	2.6229
Monolingual	8	8.5000	1.0801
	9	8.9000	2.2336
	10	10.2000	3.3267
	Total	9.2000	2.4267

Table 4: F values and significance values across groups for C-units for picture task

Source	F	Significance
Group	9.688	.003
Age	2.275	.111
Group*Age	.685	.508

MLU - C Unit: mean length of utterance per C-unit

A 2 (groups) x 3 (age) analysis of variance (ANOVA) was performed for both tasks and the results revealed that mean length of utterance was more for the bilingual group in both the tasks. This difference was significant at $P<0.05$ significance level. The mean effect of age was not significant for both the groups and for neither of the tasks. However, main effect of interaction between group and age was significant at $P<0.05$ levels. There was an opposite trend that was observed in both the groups. In bilinguals, MLU increased with age while in monolinguals MLU decreased as the age increased. Tables 5, 6, 7 and 8 show the mean values and the standard deviation, F values and the significance value.

Table 5: Mean values, SD for MLU- C units across groups for book task

Group	Age	Mean	S.D
Bilingual	8	5.7140	.9310
	9	6.2092	1.4139
	10	6.5525	1.8473
	Total	6.2234	1.5184
Monolingual	8	6.1310	.3817
	9	5.3434	.5424
	10	4.9501	.9578
	Total	5.4747	.8189

Table 6: F values and significance values for MLU-C units across groups for book task

Source	F	Significance
Group	5.130	.027
Age	.121	.886
Group*age	3.777	.028

Table 7: Mean and SD values for MLU-C unit across groups for picture task

Group	Age	Mean	S.D
Bilingual	8	7.4900	2.0231
	9	7.3634	2.5679
	10	6.9280	1.7992
	Total		2.0812
Monolingual	8	4.8395	1.7078
	9	5.1579	.6113
	10	4.7140	.6854
	Total	4.9038	1.0968

Table 8: F values and significance values for MLU-C unit across groups for picture task

Source	F	Significance
Group	29.607	.000
Age	.404	.669
Group* Age	.110	.896

Total number of words:

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed for both the tasks. The results revealed that the main effect of group, age and interaction between group and age was not significant. Tables 9, 10, 11 and 12 show the mean values and the standard deviation value the F values and the significance value.

Table 9: Mean & SD values for total number of words across groups for book task

Group	Age	Mean	SD
Bilingual	8	45.1000	4.2804
	9	46.1667	11.2560
	10	42.1250	5.5242
	Total	44.1842	7.6046
Monolingual	8	41.3000	6.2548
	9	33.9000	3.3483
	10	67.0000	94.5927
	Total	47.4000	54.7783

Table 10: F and significance values for total number of words across groups for book task

Source	F	Significance
Group	.106	.746
Age	1.019	.367
Group*age	1.654	.200

Table 11: Mean & SD values for total number of words across groups for picture task

Group	Age	Mean	SD
Bilingual	8	39.3000	13.8006
	9	31.9167	6.8816
	10	37.5000	11.9555
		36.2105	11.2974
Monolingual	8	31.0000	3.4641
	9	31.5000	6.8516
	10	36.2105	14.5816
		33.0357	9.7695

Table 12: F & significance values for total number of words across groups for picture task.

Source	F	Significance
Group	1.551	.218
Age	1.378	.260
Group* age	.790	.459

Percentage of grammaticality:

A 2 (Groups) x 3 (Age) analysis of variance was performed for both the tasks across group and age. The results revealed that the main effect of group, age and interaction between group and age was not significant. Tables 13, 14, 15 & 16 show the mean, standard deviation, F values and the significance value.

Table 13: Mean & SD values for grammaticality level across groups for book task

Group	Age	Mean	SD
Bilingual	8	96.1000	6.2796
	9	98.0833	6.6395
	10	97.7500	6.4135
	Total	97.4211	6.3272
Monolingual	8	100.0000	.0000
	9	97.4000	5.4813
	10	100.0000	.0000
	Total	99.1333	3.2982

Table 14: F and significance values for grammaticality level across groups for book task

Source	F	Significance
Group	1.965	.166
Age	.288	.751
Group * age	2.022	.366

Table 15: Mean & SD values for grammaticality level across groups for picture task

Group	Age	Mean	SD
Bilingual	8	100.0000	.0000
	9	100.0000	.0000
	10	100.0000	.0000
	Total	100.0000	.0000
Monolingual	8	100.0000	.0000
	.9	100.0000	.0000
	10	100.0000	.0000
	Total	100.0000	.0000

Table 16: F and significance values for Grammaticality level across groups for picture task.

Source	F	Significance
Group	2.898	.094
Age	1.528	.225
Group*age	1.528	.225

Complexity rating: Story grammar level across group for book task

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed. The main effect of group, age and interaction between group and age was found to be significant at p <0.05 level. Group effects showed that the bilingual children had greater mean values than monolinguals as shown in the table and the age and group interaction revealed in bilinguals initially, there is increase followed by slight decrease with age while in monolinguals initially there is decrease and later increase. Tables 17 &18 show the mean values and the standard deviation, F values and the significance values.

Table 17: Mean & SD for Story grammar Complexity level across groups for book task

Group	Age	Mean	SD
Bilingual	8	5.4000	.5164
	9	5.6667	.7785
	10	5.6250	.5000
		5.5789	.5987
Monolingual	8	5.2000	.4216
	9	4.5000	.5270
	10	5.5000	.7071
		5.0667	.6915

Table 18: F and significance values for story grammar complexity level across groups for book task.

Source	F	Significance
Group	11.801	.001
Age	3.872	.026
Group*age	5.410	.007

Story grammar elements analysis: group effects (bilingual versus monolingual)

Story complexity measures as mentioned previously included analysis of presence of story grammar elements such as setting, initiating event, planning, attempt consequence and ending and also included story complexity rating e.g., story grammar level.

Setting:

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed for the story task. The results revealed that the main effect of group, age and interaction between group and age was not significant. Tables 19 & 20 show the mean values and the standard deviation, F values and the significance value.

Table 19: Mean & SD for Story grammar elements: Setting across groups for book task

Group	Age	Mean	SD
Bilingual	8	.9000	.3162
	9	1.000	.0000
	10	.9375	.2500
		.9474	.2263
Monolingual	8	.9000	.3162
	9	1.000	.0000
	10	.9000	.3162
		.9333	.2537

Table 20: F and significance values for story grammar elements: setting across groups for book task.

Source	F	Significance
Group	.044	.835
Age	1.037	.361
Group * age	.046	.955

Initiating event (IE):

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed for the story task .The results revealed the main effect of group, age, and interaction between group and age was not significant Tables 21 & 22 show the mean values and the standard deviation value the F values and the significance value.

Table 21: Mean & SD values for story grammar elements: initiating event across groups for book task

Group	Age	Mean	SD
Bilingual	8	1.0000	.0000
	9	1.0000	.0000
	10	.8750	.3416
		.9474	.2263
Monolingual	8	1.0000	.0000
	9	1.0000	.0000
	10	1.0000	.0000
		1.0000	.0000

Table 22: F values and significance values for Story grammar elements: initiating event across groups for book task.

Source	F	Significance
Group	1.014	.318
Age	1.072	.349
Group * age	1.072	.349

Planning (PLN):

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed for the story task. The main effect of group, age and interaction was not significant Tables 23 & 24show the mean, standard deviation, F and the significance value.

Table 23: Mean & SD values for story grammar elements: planning across groups for book task

Group	Age	Mean	SD
Bilingual	8	1.0000	.0000
	9	.9167	.2887
	10	.8125	.4031
		.8947	.3110
Monolingual	8	.8000	.4216
	9	.5000	.5270
	10	.9000	.3162
		.7333	.4498

Table 24: F and significance values for story grammar elements: planning across groups for book task.

Source	F	Significance
Group	3.807	.056
Age	1.604	.209
Group * age	2.761	.071

Attempt (ATT):

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed. The main effect of group, age, interaction between group and age was not significant. Tables 25 & 26 show the mean values and the standard deviation value the F values and the significance value.

Table 25: Mean & SD values for story grammar elements: across groups for book task

Group	Age	Mean	SD
Bilingual	8	1.0000	.0000
	9	1.0000	.0000
	10	.8125	.4031
		.9211	.2733
Monolingual	8	1.0000	.0000
	9	1.0000	.0000
	10	1.0000	.0000
		1.0000	.0000

Table 26: F and significance values for story grammar elements: across groups for book task.

Source	F	Significance
Group	1.638	.205
Age	1.732	.185
Group * age	1.732	.185

Consequence (CON):

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed. The main effects of group, age and interaction between group and age were not significant. Tables 27 & 28 show the mean, standard deviation, F and the significance value.

Table 27: Mean & SD for story grammar elements: consequence across groups for book task

Group	Age	Mean	SD
Bilingual	8	.9000	.3162
	9	.9167	.2887
	10	.9375	.2500
		.9211	.2733
Monolingual	8	.9000	.3162
	9	.9000	.3162
	10	.9000	.3162
		.9000	.3051

Table 28: F and significance for story grammar elements: consequence across groups for book task

Source	F	Significance
Group	.061	.806
Age	.022	.806
Group * age	.022	.806

Ending (END):

A 2 (Groups) x 3 (Age) analysis of variance (ANOVA) was performed. The main effect of group, age and interaction between group and age was not significant. Tables 29 & 30 show the mean, standard deviation values, the F values and the significance value.

Table 29: Mean & SD for story grammar elements: ending across groups for book task

Group	Age	Mean	s.d
Bilingual	8	1.0000	.0000
	9	.9167	.2887
	10	.9375	.2500
		.9474	.2263
Monolingual	8	1.0000	.0000
	9	1.0000	.0000
	10	1.0000	.0000
		1.0000	.0000

Table 30: F and significance values for story grammar elements: across groups for book task

Source	F	Significance
Group	1.303	.258
Age	.326	.723
Group * age	.326	.723

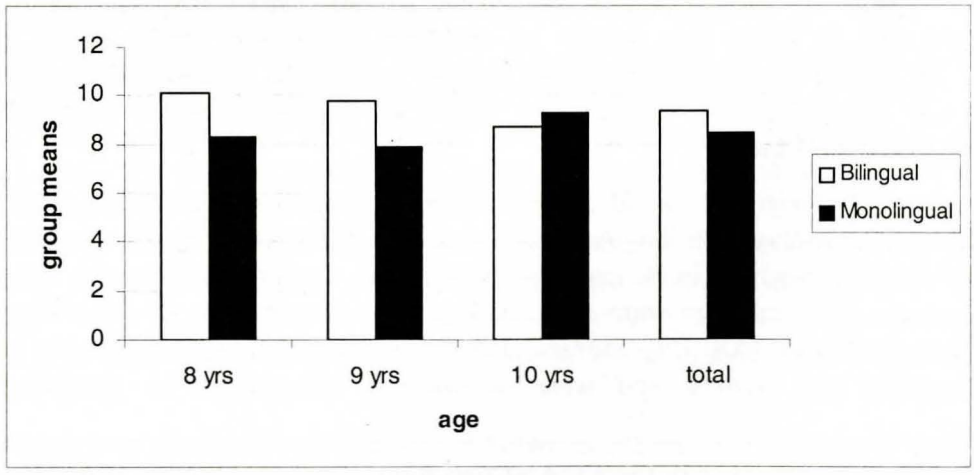

Figure 1: Group variations for C-units across age for book task

Correlations for both groups for both tasks also were carried out. The relationship between number of words for book and picture tasks were positively correlated. In bilingual group, the productivity measures for book and picture tasks were independent of each other while in monolinguals C-units were positively related to number of words.

Internal response was not statistically analyzed as it was not seen in both the groups'. Similarly ungrammatical sentences and influenced sentences also were not present.

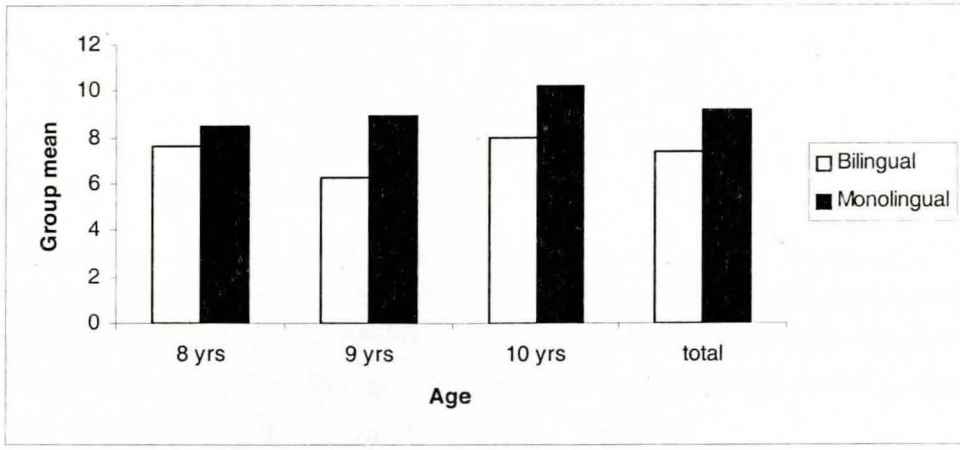

Figure 2: Group variations for C-units across age for picture task

Discussion

The numbers of recent researches on production of narrative discourse in children have focused on children with developmental language disorders such as hearing impairment, specific language impairment, language learning disabilities etc. The other fundamental facet of research is to study the effect of task on narrative production in normal children.

In bilingual scenario, the trend is to study the effects of L1 and L2 on narrative production, the differences and commonalities observed in Ll & L2 narrative production. In contrast, the focus of the present study was to explore the effects of bilingualism and monolingualsim on the production of narrative discourse .An investigation of qualitative and quantitative aspects of narrative discourse with different tasks revealed differences in linguistic abilities in these two groups of children. Thus, this study opens important dimensions for further research on discourse abilities in children .The singular importance of the study was to analyze the quantitative nature of discourse output alongside taking bilingualism as the base factor.

The present study was aimed to explore the differences in narrative production of children exposed to Malayalam language only and both Malayalam English and to see how use of different tasks such as book task and picture task can reveal linguistic difference in these two groups .The subjects were selected based on few aspects of Australian Second Language Rating Scales (ASLPR, Ingram, 1998) on the four macro skills like speaking, reading, listening and writing and were accordingly categorized as monolingual and bilingual.

The data was collected in the form of narratives in Malayalam in two different task conditions. They were transcribed and analyzed in terms of productivity measures & grammaticality measures. Productivity measures included calculation of C-units (communication units), MLU-C units (mean length of utterance per C-unit), NW's (total number of words in the sample) and percentage of grammatical sentences. Grammaticality measures included analyzing presence of individual story grammar elements and overall story complexity rating.

Productivity measures were common across both the tasks. However, story grammar analysis was not applicable for picture task as this task elicited description of routine & sequential actions of general Onam celebrations. Hence, productivity measures were compared across both groups and three age groups and also across two different tasks while story grammar analysis and complexity rating was compared across group in only one task condition

The following discussion is in terms of various parameters and theoretically motivated information of results. Children in the bilingual group used more number of C-units in the book task when compared to monolinguals as shown in the results while a reverse pattern was observed for the picture task. Monolinguals used more number of C-units in the picture task. Thus, it can be hypothesized that bilinguals conveyed more information packed story when compared to monolinguals and this indirectly supports the study of Cummins and Mulchay, 1978 that bilingual's are superior in cognitive linguistic and metalinguistics abilities.

A similar finding is noted in story grammar complexity. This indicates that bilingual children provided more details in their story when compared to monolinguals, when the story analyzed for the presence of individual elements. This shows that individual story grammar elements were not used & manipulated uniformly by this group thus leading to no significant difference by the variation in individual choice of discourse narratives. This may indicate that there was no specific pattern of story grammar competence that is observed in this group but a general weakness in narrating a cohesive story.

However monolinguals produced more C-units for picture narration task, which indicates that monolinguals provided more information when given single picture stimuli. Thus, it can be concluded that monolingual children were not efficient in tasks that required narration, maintaining causal coherence and cohesive ties though this was not directly investigated in the present study. However, these children could maintain the temporal sequence, which is evident in the picture task. The results are affected by the very difference in the discourse organization and the types of narrative skills they demand between a sequential progression of theme and a static picture of description.

The mean length of utterance per C-unit was also more for children in bilingual group for both book and picture task, that is, bilinguals used more number of morphemes for both the tasks. This indicates that children in the bilingual group used more syntactically complex narration when compared to monolingual group. However, there is no variation seen in total number of words used in both the groups for both the tasks. This throws light on the fact that bilinguals used the similar number of words as used by the monolinguals to convey more information thus highlighting the possibility that lexical diversity and semanticity is better in bilingual children. This finding also indicates that the bilinguals used same number of words as the monolinguals but conveyed more meaning, which is evident in their story grammar complexity level.

There was no significant difference between usages of grammatical sentences. Both the groups across the two tasks yielded correct grammatical sentences. This again supports our earlier observation that though both the groups yielded similar results quantitatively the difference was obtained in the quality.

Thus bilingual children's productive use of C- units and MLU-c units when they narrated a story indicated a mature control of fundamental features of discourse and this was not reflected in their narration of particular picture task. This may be because picture task may not require causal sequencing of events though temporal sequencing may be required

.The reverse trend was observed in the monolingual group. These results do not claim that bilingualism has a direct effect on first language but do hint at it. This assumption requires further empirical validation with a vast subject pool in both their languages.

Age as a variable on the narrative production in the story and picture tasks between bilingual and monolingual was not realized statistically. A limited subject range and a lack of a specific research design to capture age effects on narrative skills in this particular study may have been the reason. However, the results indicate that there is an interaction between groups and age .The decrease in C-units with increase in MLU-C units in the bilingual group indicates use of compact and informative narrative production. An ability to produce C-units with large lexical items will result into overall decrease in C-unit number .In monolinguals, the trend of C-units with age is not consistent. They used more C-units with increasing age but initially they were decreasing. Further studies specifically designed are necessary to validate this result.

This result has demonstrated the causal relationship among lexical words that make C-units. Number of C-units thus formed overall informativeness of narrative production. Bilinguals and monolinguals clearly demonstrate a difference in this regard and these findings support the earlier findings which have revealed that bilinguals are superior in their cognitive linguistic and metalinguistic abilities (Pearl &Lambert, 1962; Ben-Zeev, 1972) and disagree with other studies which show negative effects of bilingualism (Hirsch, 1926; Mead, 1927; Rigg, 1928; Saer, 1922, 1923). Thus, it can be concluded that bilingualism may facilitate better discourse abilities however this finding needs further validation with use of other kinds of narratives with a large subject group.

Another interesting finding is that it is not necessary for the bilinguals to be equally proficient in both their languages to have better linguistic skills than monolinguals as seen in this study. This finding is also indirectly supported by the study done by Scott (1973) who studied children who has become functionally bilingual through immersion bilingual education programme and showed better skills in divergent thinking than the monolinguals.

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