

Development of Referring Expressions in Malaysian Deaf Children

Samuel Chew Kai Mun^{*1}, Kw Ho²

¹Department of Linguistics and Modern Languages, the Chinese University of Hong Kong

²Malaysian Sign Language and Deaf Studies National Organisation

*Corresponding author email: chewkaimun@link.cuhk.edu.hk

Introduction

The Situation of Malaysian Sign Language (BIM) in Schools

The Malaysian Sign Language or Bahasa Isyarat Malaysia (BIM) has been officially recognized in the Disability Act 2008 as the native language of the Deaf. Since the inception of the Malaysian Federation of the Deaf in 1997, concerted efforts have been made to promote the standardization and use of language through the publications of BIM handbooks for use in schools for the Deaf and in the teaching of BIM to the public in general. Nevertheless, the implementation of BIM as the medium of instruction has received mixed reactions from educators as many have trepidation that it may hinder students in learning Malay and English as a second language. Therefore, teachers often switch between signing exact Malay or KTBM and BIM in the classroom. Outside of the formal learning environment, however, students are often seen to converse naturally in BIM. Such is the landscape of the use of BIM among Deaf school children in Malaysia.

An Overview of Referring Expressions

Referring expressions or sometimes referred to as discourse referencing is the use of linguistics means by interlocutors to maintain a discourse by employing strategies to refer to the entities in question at three different phases, namely, introduction when the entity is first introduced in the discourse, maintenance when the entity continues to be in the foreground; and reintroduction when an entity that was in the background resurface to become the centre of the discourse. The development of the ability in children to provide appropriate background information in storytelling is an important milestone in language acquisition as they have to demonstrate proficiency in a language beyond the mastery of individual words and sentence structures. The means of referring involves strategies to be deployed by the child at the discourse level that demands pragmatic acumen in order to know how much information is to be shared with the interlocutors. Therefore, the child has to at a very early stage of the discourse be able to introduce the narration by specifying 'who', 'where' and 'when' (Berman, 2001).

Previous studies have shown that typically developing (TD) hearing children often provided less information at introduction (Berman 2001; Peterson 1990) and the justification has been made that this could be due to the cognitive demands when children are required to narrate information presented in the spatial-visual modality into sequential segments of oral or written output (Berman & Slobin 1994). Therefore, it would be worthwhile for a preliminary study such as this one to understand how Deaf children use space to talk about space. In order for the interlocutors to successfully follow and understand the narratives, the Deaf child has to integrate appropriate linguistic devices to identify the referents coupling with their cognitive understanding of the story in structuring the discourse. Previous naturalistic and experimental studies in languages that use formal article systems to identify referents such as French and English (Brown 1973; Warden 1981) as well as in languages that do not employ such article systems such as Japanese and Finnish

and Turkish all have pointed to the late emergence of appropriate marking of referents in a discourse (Hickmann 1995; Nakmura 1993).

Referring Expressions in BIM

After typologically studying previously researched signed languages such as ASL, BSL and HKSL, it is observed that BIM bears a close resemblance in terms of strategies that are typically deployed in terms of the use of space to set the scene for narration. This is briefly illustrated in the following:

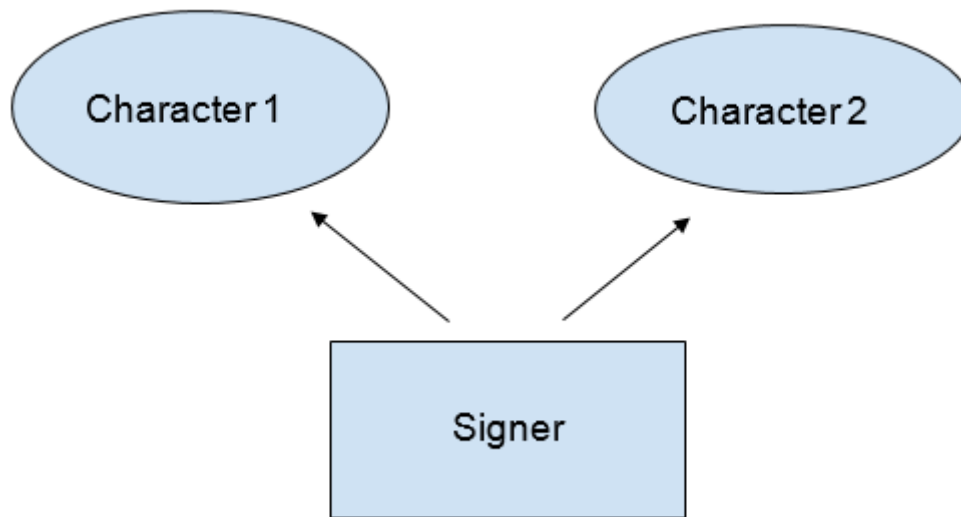


Figure 1: ASL, BSL and HKSL

It is often seen that signers of BIM establish referential loci with noun phrases in this convention for main characters and would point to the respective locus to call on the character into the foreground during a discourse. Adult signers are also reported to use semantic classifiers in the verb predicate (VP) with clarifying cataphoric in NP structure. In addition, signers would also use role shifts or constructed actions (CA) to mimic established characters, especially during the maintenance and reintroduction phase. The definition of CA used in this study follows Cormier (2013) whereby the criteria would be to assess if the addressee uses different parts of the body to mimic the referent's expression of thoughts, feelings and attitudes. This is generally assumed to follow after an NP but this is optional and can even be considered infelicitous in BIM when the context is highly explicit. Based on my personal observation as a BIM signer and from studying previous works on referencing such as Czubek (2017), the choice between using a noun phrase, classifiers and role shifts is determined by the perceived awareness of the addressee by the signer and generally, the noun phrase is used when the characters require high explicitness such as during introduction, followed by classifiers and constructed actions being deployed when the character requires the least explicit description such as during the maintenance phase.

Research Questions

The aim of this study is to investigate referencing patterns in the introduction, maintenance and reintroduction of Deaf children using BIM and compare it to their written English of the same narrative. The main purpose of this investigation is to gain a preliminary understanding of whether there are modalities effect on their narration.

For the purpose of gaining insights into the above, this study is guided by the following questions:

1. What types of nominal expressions do Deaf children use for discourse referencing in BIM?
2. What is their approximation to patterns of Deaf adults?
3. Are there linguistic transfers from BIM to written English in Deaf children?

Research Methodology

Informants

The development discourse referring to strategies in 2 congenital deaf children are investigated in this study. The first male informant, aged 12;5 months, is born to hearing parents and studies in a boarding school for the Deaf. It is reported that although he does not have much linguistic input at home, he spends a lot of time on YouTube watching videos in American Sign Language and International Sign. The second informant is an 11;1 male, born to Deaf parents and has had exposure to the Deaf community as his parents and extended family members are active members of the Deaf community. He is also studying at a Deaf school whereby most of the teachers are hearing and use a mixture of signed Malay and BIM. Both informants have good models of fluent adult BIM signers and they have been selected by a native deaf linguist as having age-appropriate levels of BIM as to date, there is no standardized BIM assessment battery and thus the language assessment is carried out through a rather informal method.

As the children face difficulty remembering the story, they were allowed to watch the video clip as they narrate the story. During the process of recording, the children did not show any inclination of pointing at the characters as the screen was only visible to them and they were told to narrate the story to a Deaf adult who does not know the story. BIM data are similarly elicited from 2 native Deaf adults who are active members of the community and grew up in a Deaf families. They were shown the same cartoon clip and asked to narrate the story to a Deaf adult who was standing behind the camera and was told that they have not previously watched the video.

Data Elicitation and Analysis

The 2 informants were shown a 60-second video clip of “Sylvester and Tweety” which has 5 characters namely, a cat, a monkey, a bird, a man and an older woman. They were asked to watch the clip and when they are ready, narrate the story to a native Deaf adult who is behind the camera set up across from the informant. The Deaf adult is an active member of the Deaf community and

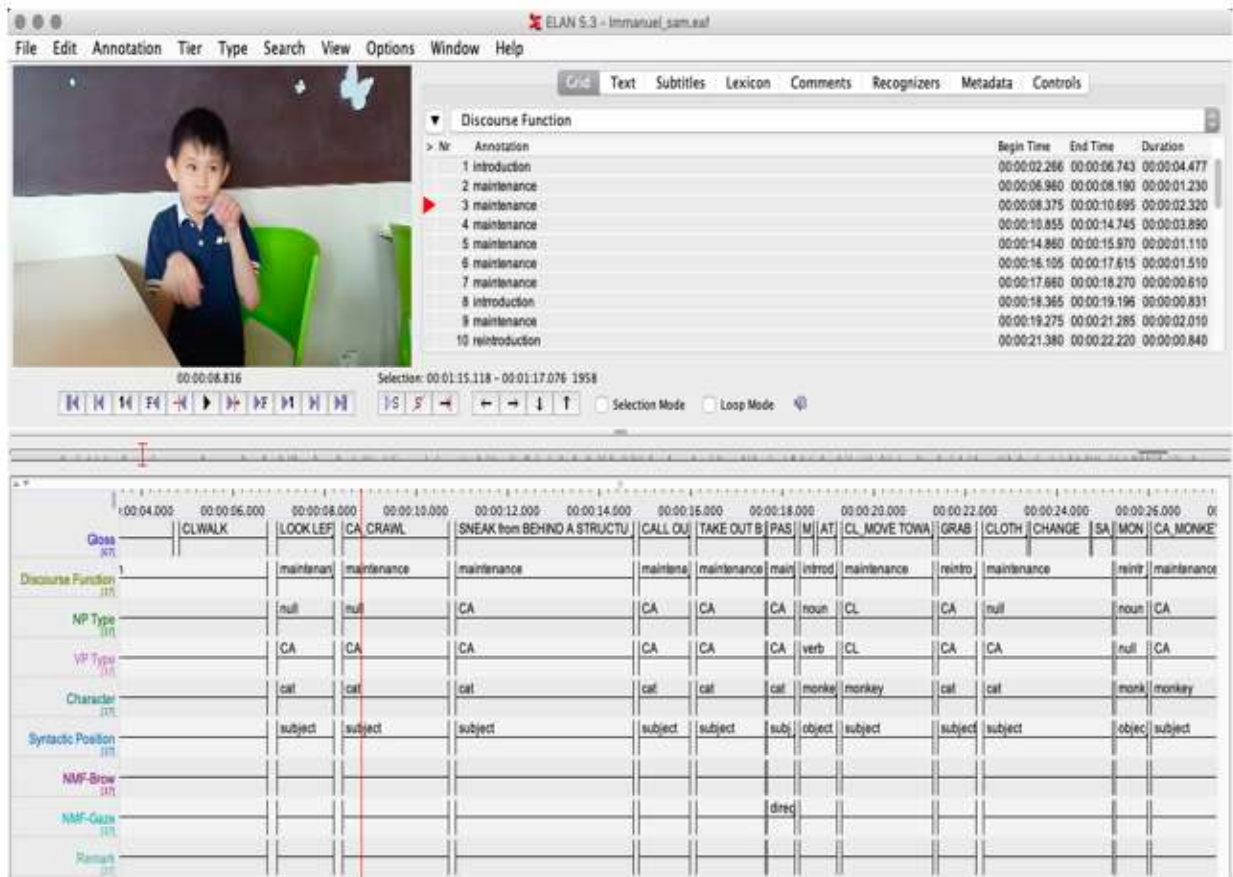


Figure 3 Child Informant #2



Figure 4: Deaf adult #1

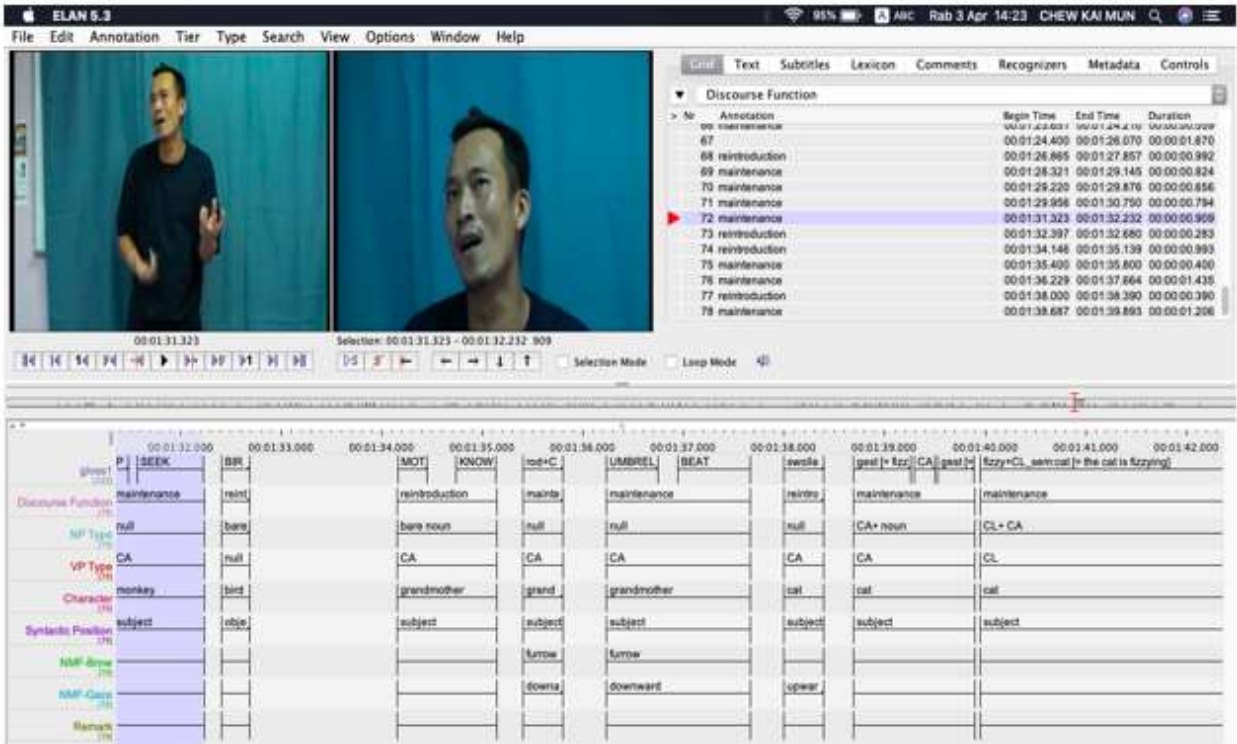


Figure 5: Deaf Adult #2

Results and Discussion

An analysis of the data collected clearly shows that both the Deaf children are able to accurately use noun phrases 100% of the time to introduce new characters in the discourse just like Deaf adults as displayed in Diagram 4.1. This substantiates a previous study by Morgan (2005) that shows children by the time they reach the age of 11-13-years, are able to use noun phrases to introduce characters in the same pattern as adults and hence argue that they have attained almost complete mastery in establishing characters that are involved in discourse. In terms of the distribution of types of noun phrases, both Child 1 & 2 approximate Adult 1 in which they use mostly bare nouns. From the data, it is observed that only adults were able to use pointing (IX) to function like pronominals as this did not appear in both the child data. However, child 1 who is older by one year, is able to use IX and noun as a reference, hinting that in the development of noun phrases, a child would first learn to use both pointing and noun before subsequently dropping the noun when they are able to understand that pointing suffices as a referent without overtly stating the noun.

A plausible explanation for this phenomenon calls upon the concept of Universal Grammar (UG) whereby a child seems to understand that the underlying or deep representation is to refer to the character that is in question just like in the adults, but the surface representation of using pointing is yet to be mastered metacognitively by the children and thus they would prefer to explicitly refer to the entities with a bare noun that could also be understood to function like proper nouns in the context of this discourse as the characters are all different. This notion is further supported by the observation in Adult 2 that seems to use bare nouns at a much higher occurrence (75% vs 27% in Adult 1), thus suggesting that both children and adults informants may have conveniently assigned the bare nouns as a form of the proper noun for the entities.

Below is a table summarizing the types of noun phrases used:

Table 1

	Bare Noun	Pointing (IX)	IX + Noun
Adult 1	4 (27%)	5 (33%)	6 (40%)
Adult 2	15 (75%)	2 (10%)	3 (15%)
Child 1	15 (83%)	-	3 (17%)
Child 2	12 (100%)	-	-

For maintenance phase, children demonstrated a higher tendency to use constructed actions compared to Deaf adults as shown in figure 7. This is consistent with the general observation of both Deaf and hearing children often seen mimicking characters in their discourse compared to adults. Nevertheless, children are already showing a similar pattern in using constructed action for reintroduction and maintenance although children seem to overuse this strategy as shown in Figure 8. It is noteworthy to mention that constructed actions are not observed during the introduction phase of the discourse and this clearly supports the evidence that children have developed the same

level of linguistic and metacognitive awareness whereby entities have to be explicitly denoted when they first appear in a discourse. On the other hand, adults show significantly higher use of classifiers for maintenance probably because children are often reported grappling with the choice of classifiers to deploy as it demands a higher cognitive load having to choose the right semantic classifier and attributing a cataphoric to it. Both child informants have used classifiers for 9% and 16% respectively compared to more than 20% of total use in adults. Figure 8 shows that children have yet to develop adult-like use of classifiers for reintroduction and maintenance in both in terms of patterns and percentage of use.

On the use of noun phrases for maintenance, both children and adult informants used it sparingly in the discourse when it appears in an embedded clause. This can be understood as the signers would want to ensure that the character is foregrounded without ambiguity hence referring to it with a definite noun phrase. In both adults and child 2, the noun phrase was deployed once in the narration which alludes to the fact that child 2 who is born to deaf parents was able to make similar strategic consideration in his narration despite being younger by more than a year compared to child 1. Figure 9 which shows the referent forms during reintroduction indicates that children have acquired adultlike skills with noun phrase being clearly the most preferred form to clearly mark the character that is foregrounded once again. Child 2 who has demonstrated to be more proficient in BIM deployed classifiers once during his narration alluding to the fact that he is actually dabbling with the use of classifiers as one of the forms he can use albeit in this situation may not be similar to how Deaf adults would have used it. Nevertheless, this shows that the child is transitioning to mastering the use of classifiers through trial and error.

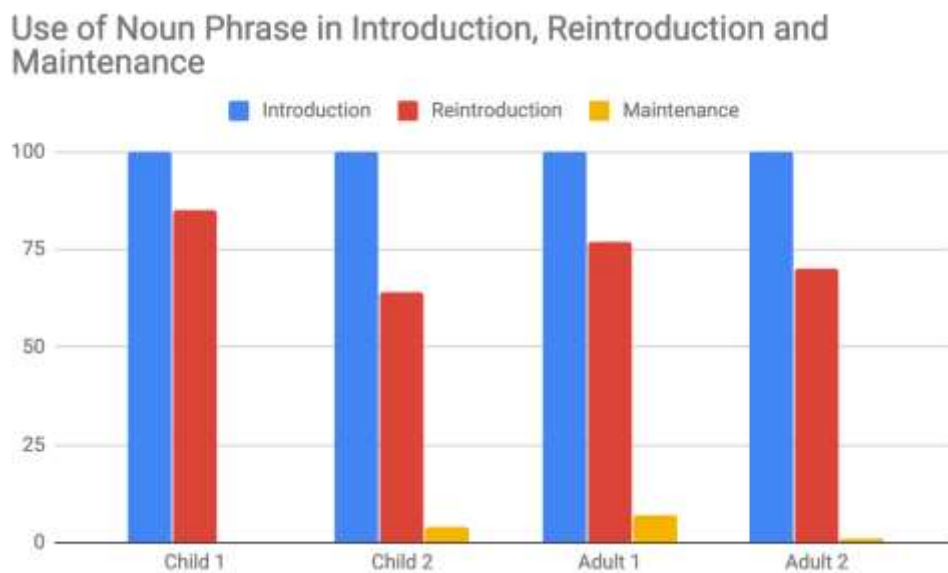


Figure 6: Noun Phrases: Bare nouns / pointing (IX) / IX and noun)

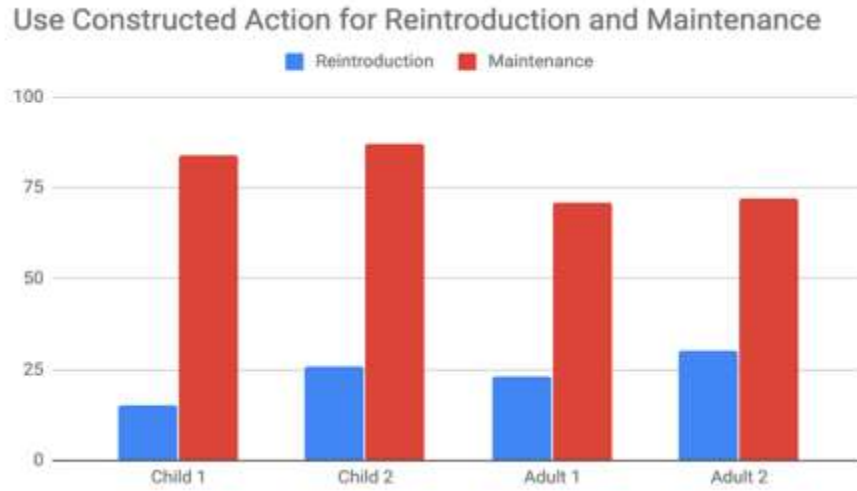


Figure 7: Use constructed action for reintroduction and maintenance

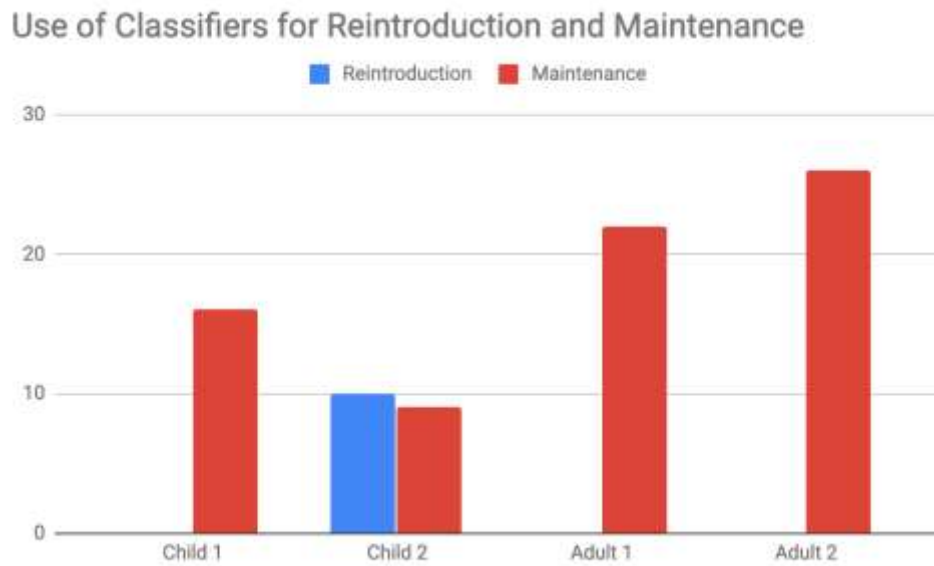


Figure 8: Use of classifiers for reintroduction and maintenance

Referent Forms for Maintenance Phase

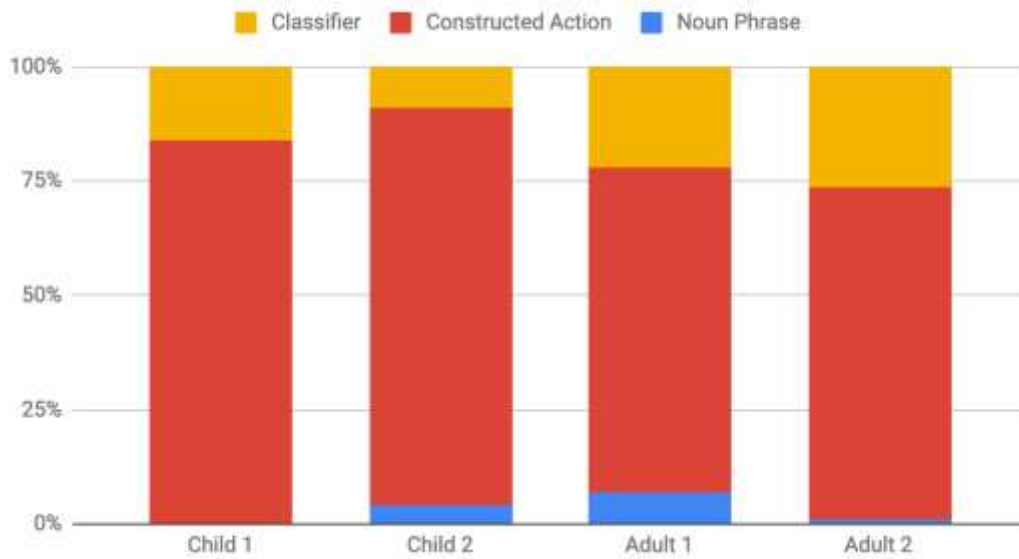


Figure 9: Referent forms of maintenance

Referent Forms for Reintroduction Phase

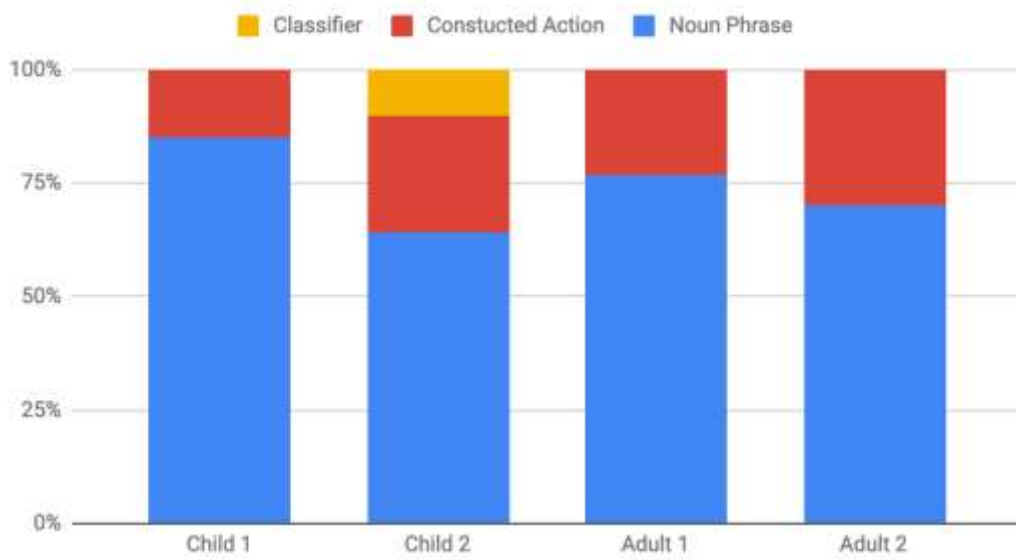


Figure 10: Referent forms for reintroduction phase

Written English

Contrary to their near adult-like mastery of referencing in BIM, the deaf children's written narration of the same story in English only used bare nouns to represent all animate objects except when referring to humans whereby they are sensitive to noting the differences in gender-specific pronouns, i.e. he/she and her / him. When referring to non-human animates, both deaf child informants did not use any pronouns and displayed inconsistencies in using definite and indefinite noun phrases. This clearly indicates that Deaf children who have been learning English with up to 6 contact hours per week at school have yet to understand the hierarchy of explicitness in English, ie indefinite noun phrases being used for highly explicit reference during the introduction phase, followed by a definite noun phrase, pronoun and zero form for maintenance reference which requires the lowest explicitness. These deaf children clear lag behind their typically developing hearing peers who are able to demonstrate a much higher sensitivity in the use of referent forms which substantiates previous research which concludes that transference of narrative abilities from oral to written modality depends on native-like knowledge of a first language which is assumed in the majority of hearing children but is not immediately observed in deaf children (Gary 2004)

Summary

Deaf children by the age of 11-13 years of age demonstrate a good mastery of BIM at the sentential level and are able to produce sentences that resemble Deaf adults. However, when investigations are carried out at the discourse level, they are seen to be still fumbling with some pragmatic strategies in narration as shown by this study. Deaf children have demonstrated adult-like mastery in the use of noun phrases across all referent functions to produce a coherent and unambiguous narration. They are seen to produce more constructed actions in their discourse much akin to childlike behaviours of animate objects mimicry but this is in no way jeopardizes the clarity and coherence of their discourse although Deaf adults prefer less vivid body actions by deploying classifiers which seems like a reasonable tendency of adults to be more reserved compared to children. Classifiers seem to be the starkest difference in terms of use when children are compared to adults, reinstating the long-held notion that classifiers are one of the final frontiers of mastery for both L1 and L2 learners of sign language. Children at the age of 11-12 years old are still producing much fewer classifiers although their choice of products in the maintenance phase mirrors an adultlike pattern. In terms of literacy development, previous research has shown the many great hurdles this poses to deaf children (Allen 1992) and this preliminary study indicates that the adultlike mastery of BIM in these deaf children does not immediately transfer to their mastery of written English as far as the pragmatic aspect of referring functions is concerned although it may be conceded with Lichtenstein (1998) that the knowledge of constructing good and long narratives are an indication of one's working memory and metalinguistic knowledge which license the use of one referent form over others.

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Appendix

Raw Written Narratives by the Deaf Children (Note: errors have been left uncorrected)

Informant 1

The cat not has home and food. Cat have to see one man fat were singing with his pet is monkey. His pets work with him for find money. The cat has idea. A cat was taking banana for monkey but lying. Monkey follow cat. Happen cat fight. Monkey for steal t-shirt and money. A bird yellow was scaring when see cat steal. A cat climbs a home because it is want need money. Bird was sitting in hutch. Cat come see bird. She rans from her hutch. Cat follow bird and fast run. She was running to kitchen. The cat find bird but she was kitchen. One woman old ask cat, "Why I find?" Women old help give money for cat. Cat said, "Thank You". She was attack his head.

Informant 2

The cat walked and search the monkey. The cat is quieting walked reach stored a sqarue near the monkey and the man is song. The cat is spy, noise and banana to monkey listen come to the cat will get the monkey for change t-shirt and cup from the monkey. The bird yellow is seeing the cat climbed to pole to grandma house for get bird for eat. So bird is afraid and escaped. The cat run away to bird but the cat is see to grandma. She is see the cat same monkey t-shirt poor. The cat is quietly walked for search bird. The cat is seek thingning [sic] many search fail bird. She is giving a coin then umbrella hit to the cat's brain reason the cat search and steal get bird to eat. She said no search bird because her is belong bird from shop pets. She said out the cat reason grandma's house not like dirty.