A BILINGUAL CHILD'S ACQUISITION OF MANDARIN AND ENGLISH: SAME OR DIFFERENT RATE?

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Abstract

This paper is descriptive in nature. It looks at the utterances of one Malaysian-Chinese bilingual child who was specifically spoken to in Mandarin and English from birth. The aim of this paper is to highlight the different speech components present in the two languages. There is some evidence to show that the child's preferred language is not necessarily the dominant language. The child was observed closely by the researcher cum mother over a period of seven months. Initial utterances were tape recorded but later discarded due to impracticality. Subsequent utterances were then spontaneously recorded into journals as and when they occurred within the child's home with details such as time, date, place and participants indicated. Transcribed orthographically, data were then categorized according to the languages heard and then the speech components (see Hoff, 2009; Foster-Cohen, 1999; Crystal, 1997) respectively. A frequency count of all these utterances suggests that 59% of the child's utterances were in English while 19% were in Mandarin (dominant language) with smaller percentages subscribing to the various environmental languages. Data also indicate that more nouns were used in English and but slightly more verbs and noun phrases were used in Mandarin. This phenomenon was also used as a determinant to gauge the rate of acquisition of the two languages. A very small percentage of the child's data were also articulated as complete sentences but this was done in mixed languages, which could be a typical phenomenon of bilingual language acquisition at the early stage.

Keywords: bilingual language acquisition, Malaysia, Mandarin, English, grammar

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INTRODUCTION

Current theories of language acquisition help us to understand how first language acquisition occurs and how young children use language. Pinker (1994), for example, mentions that young children need to have a "language instinct" in order to acquire language while Yip and Matthews (2007) suggest that "bilingual language instinct" may be a necessary for bilingual language acquisition to occur. Chomsky's Universal Grammar has often been cited by many to explain how young children acquire language i.e. they are "biologically endowed" while others think that language is the result of the child's cognition (Piaget, 1955) or social interactions (Vygotsky, 1986). Such theories enable us to have a better understanding of the various possibilities of learning a language but they do not tell us how bilingual or multilingual children who are raised in multilingual settings develop their abilities to become bilingual or multilingual. Some questions still linger in our minds. For example, "Do bilingual or multilingual children have any difficulties in differentiating the languages they hear? If so, what are they and how are they overcome? Are both languages learnt at the same time and do they develop at the same rate? Leopold (1939/1949) shares some aspects of his daughters' bilingual language development but he does not provide answers to these questions specifically. Nonetheless, Yip and Matthews (2007) mention quite clearly that bilingual children do not take the same path as monolinguals do to reach their target (Yip & Matthews, 2007) hence, some differences are expected.

Past theories of language acquisition tend to focus on monolingual children if not bilingual children of European backgrounds. Nonetheless, as more and more children are prone to hearing and speaking more than one language as they develop, the puzzle remains as to how these languages are stored in their brains and how they are recalled for use. A study by Fedio, August, Myatt, Kertzman, Miletich, Snyder, Sato, & Kafta (1992) show that there is more diffused brain activations when two languages are involved but few studies can show exactly where each of these languages is stored or why a speaker uses one language for a particular reason or why a specific word is more preferred than another. Bilingual language acquisition studies of Asian children are far in between (see Sriniwass, 2007, Soriente, 2006, Kuang, 2006) and most tend to concentrate on older children. Few actually focus on bilingual infants and, in that regard, Malaysian bilingual children, in particular, have been slightly neglected. This paper hopes to address the gap in a small way.

AIM

Focussing on the early words produced by a Malaysian – Chinese bilingual child, this paper attempts to highlight the different rate of language acquisition for the two languages (Mandarin and English) the child was exposed to from an early age. The child's utterances were categorized into speech components and, from the comparison, there is evidence to suggest that the use of nouns, verbs, adverbs, adjectives, and noun phrases are not parallel in the two languages. In addition, one language seems to be more preferred than the other. For this paper, two research questions were formulated:

a. Does the acquisition of Mandarin and English develop at the same rate for this bilingual child? If so, how are they different?
b. Between the dominant language (Mandarin) used by the family members and the exclusive language (English) used by the mother with the child, what is the bilingual child's preferred language of use?

BACKGROUND OF THE STUDY

The bilingual child in study is raised in a multilingual setting and Mandarin serves as the dominant language as it is used by the father, siblings, caretakers as well as visitors with the child. English is used exclusively by the mother with the child. Other dialects spoken within the environment (environmental language) of the child are: Cantonese, Hokkien and Malay. In addition, the family members also used a variety of Malaysian Chinese language termed as Chinese Child Directed Speech (hereby referred to Chinese baby language/lingo) with the child. This variety of language comprises reduplications like *kok-kok* (sound of horse trotting), *or-oink* (sleep), *marm-marm* (eat) and Yip & Matthews (2007) provided the word, *nail3-nail3* (Cantonese for milk) as an example.

METHODOLOGY

This study is qualitative in nature and the analysis is generally descriptive. Authentic data were collected based on close observations of the child at birth by the researcher cum mother. Data were tape recorded in the first three months but due to poor logistics (interference of tapes by the siblings), subsequent data were then manually recorded into a journal (see Leopold, 1939-1949; Ronjat, 1913). To capture spontaneous utterances, several journals were placed in different parts of the house. For the benefit of comparing the words produced by the bilingual child, only utterances compiled between 13 and 19 months of age (seven months) were used for analysis (see justification below). Where there is a discrepancy in the words

uttered, a check was verified with other family members before they were recorded and confirmed for meanings. The period selected for this paper is significant because it is the stage where the child's vocabulary was expected to increase (Hoff, 2009; Brown, 1973; Nelson, 1973). This stage of development also saw the child vocalising words of the two languages simultaneously. All utterances were transcribed orthographically and then categorized into the respective languages before being grouped into the respective speech components. The speech components of the English language were used as the basis for comparison. In the context of this paper, Mandarin and English refer to the variety of languages commonly used by Malaysian speakers. Where address forms were used, these were categorised accordingly: *mommy* is English, *ge*(哥-elder brother) is Mandarin, *kor*(elder brother) is Cantonese and *mar*(grandmother) is Hokkien. If there was an element of one of these being used within an utterance that is either English or Mandarin, the utterance is deemed as mixed. Local tags like "*eh*" was not coded any language component.

JUSTIFICATION

Leopold (1939/1949) pioneered the study on child bilingualism research which focused on the linguistic output of his two daughters from birth. He rationalized that young children's output could help to shed light on the general principles of language and language change. He also mentioned that how young children used language could illustrate the grammar and process which they went through. These evidences can help researchers to understand how languages are learnt.

Yip and Matthews (2007), Fantini (1985), Leopold (1939/1949), and Ronjat (1913) look at their own children while others like Deuchar and Quay (1999), Lanza (1997), and De Houwer (1990) focus on groups of young children. Today's technology can provide better means of collecting data but they are mostly geared towards looking at the dynamic interactions of very young children within a laboratory or homes that are equipped with high technology recorders. Such technologies do not always serve the needs of individual researchers who look at case studies especially when the researcher is also serving as observer, participant and caretaker of the child as high technology also requires financial investments. Audio and video recordings can serve as alternatives to capturing scenes of young children in language development but they too have their respective fallbacks. For instance, they are dependent on logistics, infrastructure and discipline which encompass stringent labelling and organisations of tapes and other artefacts. In contrast, diary entries or journal-recordings are considered old fashioned. Not only do they involve manual recordings of oral data, they are also

limited in that they prohibit the playing back of scenes which can help to strengthen one's transcriptions and analysis. In that aspect, it restricts interpretation possibilities. However, as a method of collecting data of individual subjects, this method is practical, spontaneously accessible, and convenient when every spontaneous articulation needs to be quickly captured.

VOCABULARY DEVELOPMENT

It has been said that children add words slowly to build up their vocabulary and the speed will accelerate as they "approach the 50 word vocabulary" (Hoff, 2009, p. 188). This is most likely to occur when the child is between 15 to 24 months (Hoff, 2009; Nelson, 1973). However, Bloom (2004, cited in Hall & Waxman, 2004) rejects this, saying that 2 year olds do not necessarily learn as many as five words per day. Nonetheless, each child develops at a different pace so the development may be different. Children's vocabulary was grouped by Nelson (1973) into six categories:

1) Specific nominals, such as **mommy**, **daddy**, **Rover**
2) General nominals, including nouns such as **dog**, **ball**, **milk** and pronouns like **he**, **this**
3) Action words, such as **go**, **up**, **look**
4) Modifiers, such as **big**, **all gone**, **outside**, **mine**
5) Personal social words, such as **no**, **want**, **please**
6) Grammatical function words, such as **what**, **is**, **for**

Nelson (1973) indicates that the largest single category of children's words is nominal (general and specific). These nominals would increase as the vocabulary size increases. Young children's vocabularies should also not be compared to those of older children and adults (Hoff, 2009) since children's first words reflect their experiences which have been gained from their interaction with others in their lives. Their experiences are often related to their lives, food, body parts, clothing, animals and household items (Clark, 1979). Children's vocabularies are also linked to daily routines in their lives such as *night-night* or *bye-bye* or other experiences which their upbringing may impose upon them. Hoff (2009) explains that children's vocabularies can be verbs related to labels for actions such as *eat*, *drink*, *kiss*, *sing*and some actions may also be related to general meanings that "are frequent in children's input" (Hoff, 2009, p. 191) such as *look*, *go*, *come* and *do* (Naigles & Hoff, 2006). However, Hoff's (2009) claims were based on children acquiring English.

Claims suggesting that nouns predominate in the children's vocabularies (Bates et al., 1994; Benedict, 1979; Dromi, 1987; Gentner, 1982; Gentner & Boroditsky, 2001; Goldin-Meadow, Seligman & Gelman,

1976; Hoff, 2009) are common. Looking at English speaking children who have acquired between 20 and 50 words, studies (Caselli et al., 1995, cited in Hoff, 2009)indicate that 45% would consist of nouns and only 3% would be verbs. Nouns predominate because they are easier for the child to encode since the labels refer to tangible entities that are within the child's environment. It is also because children find it easier to understand things based on their perception of the physical world. Verbs, in contrast, are linked to particular actions and the expression of these verbs is often related to some kind of relationship among things, for example, *come* entails somebody coming or *give* entails somebody giving and these meanings are slightly more difficult to process through non-linguistic experience by young children (Hoff, 2009).

Language Mixing in Bilingual Children

Language mixing is a common phenomenon in multilingual settings. Children raised in such settings are likely to mix words from different language stores (Swain & Wesche, 1975; Volterra & Taeschner, 1978; Redlinger & Park, 1980; Arnberg & Arnberg, 1985;Vihman, 1985;Schlyter, 1987; DeHouwer, 1990). There are claims (Hoff, 2009) which indicate that language mixing in young children occurs in about "a quarter of the utterances of children when they are about two years old". This then decreases to less than 10% at about three years of age (Goodz, 1994; DeHouwer, 1990; Schlyter, 1987; Vihman, 1985;Redlinger & Park, 1980). Single content words are mixed more frequently but in older children, mixing may occur within utterances as well as within verbs but such an occurrence was observed to be minimal (Swain & Wesche, 1975). These diverse views depict that different bilinguals experience different processes in becoming bilingual.

Some reports (Ronjat, 1913; Leopold, 1939-1949; Taeschner, 1983; and Fantini, 1978, 1985) claim that children use words from both languages indiscriminately at the initial stage of development. This has been described as "initial mixing" or "confusion" by Volterra & Taeschner (1978) who mention that the mixed elements could be interpreted as evidence of an undifferentiated language system (Volterra and Taeschner , 1978) or as the unified linguistic system (Hoffmann, 1991). Other reports (see Genesee, 1989; Hoff, 2009) claim that bilingual children have two separate language stores to process their lexicon.

Fromkin, Rodman &Hyams (2003, p. 376) explain that when mixing occurs in young children, it is a process and not mixing. They say that bilingual children use words of both languages in their utterance because these words were used with them in a particular situation. Consequently, the

bilingual children had to make use of lexicons from the two languages in different circumstances. They also add that bilingual children have smaller vocabularies in each of their languages as they are contending with two languages simultaneously and this is acceptable since the bilingual child can "only learn so many words a day, simultaneously having to built two lexicons"Fromkin et al. (2003, p. 376). In that regard, it is possible that the bilingual child may have more lexical gaps than the monolingual child at a comparable stage of development. However, such gaps may be different in each language.

Grammatical Development

Chomsky (1965, p. 25, cited in Packer, 2001) says that "A child who has learned a language has developed an internal representation of a system of rules" implying that the child is biologically prewired in learning to make certain novel utterances (Saville-Troike, 2006) which are unlike adult utterances. "The linguist constructing a grammar for a language is in effect proposing a hypothesis concerning the internalized system" (Chomsky, 1968, p. 23, cited in Packer, 2001) and so it is up to the individual researchers to help make contributions to this field by first constructing a hypothesis.

Different researchers bring with them respective world views and experiences, thus there will be several ways of looking at the same data and, in that regard, some interpretations may also be subjective. "The description to be preferred, of course, is the one that corresponds to the way the speaker's linguistic knowledge is structured, the one that determines the kinds of novel utterance he can produce or understand, how he constructs the meanings, and what his intuitions are about grammatical well-formedness" says Bowerman (1978, p. 28).

Every child processes the speech to which he/she is exposed to so as to acquire the latent structure of the language and through this latent rule structure which may be general, a child can decode all its meanings (Brown, 1973, cited in Bowerman, 1978). Bellugi and Brown (1964, p. 314) adds, "The discovery of latent structure is the greatest of the processes involved in language acquisition, and the most difficult to understand".

In doing a grammatical analysis of children's utterances, Slobin (1988) proposes that samples of spontaneous speech be collected from children. Attention can then be given to the auxiliary system or the word-order patterns because these play a central role in syntax. Alternatively, the sentence types could also be tracked and categorized as "affirmative", "negative", and "questions" as they could show a pattern as to where auxiliaries and word order would vary (Slobin, ibid.)

Brown (1973) echoes the same view, saying that it may be useful to analyze 2children's two word utterances, considering that the telegraphic stage, as an aspect of language, can shed light on where the "syntactic" grammar of the two-word speech is acquired. While two word utterances were said to bear some grammatical structures (Slobin, 1978), Crystal (1997) suggests that they could be deceptive since some of these two word utterances could have been learnt as a whole phrase and children may be using them as if they were single units.

Telegraphic speech develops around 18 months of age (Crystal, 1997) when young children begin to string two or more words together. Piaget (1955) says that there are stages for children to go through in language development and this means that structures of language such as nouns, verbs, adjectives may need to be acquired through stages. However, Crystal (1997) claims that telegraphic speech often occurs abruptly because it is a transitional period for the child. Reports (see Hoff, 2009) seem to imply that 60% of words at the telegraphic level tend to bear some naming functions (nouns) while only 20% will express actions which may or may not turn into verbs (Hoff, 2009). In addition, there are other word classes such as adjectives and adverbs (Hoff, 2009). There are also words which are difficult to classify, such as *bye-bye*, which is a difficult utterance to assign a word group for (Crystal, 1997).

RESULTS

This section provides a collection of progressive tables which will illustrate the number of utterances compiled when the child was between 13 to 19 months old. Table 1 shows the total compilation of utterances which amount to 105 utterances, counting by the number of words articulated. These were then tabulated in percentages based on the frequency of occurrences. Italics are provided to illustrate the developmental words articulated by the child or when the words were not English (Child Directed Speech/Chinese Baby Language/Lingo).

TABLE 1
Statistics of the bilingual child's utterances collected over 7 months

No		1	2	3	4	5	6	7	
Age (ms)		13	14	15	16	17	18	19	**Total**
Total utterances collected		**17**	**9**	**17**	**10**	**29**	**7**	**16**	**105**
Languages spoken	English	16	5	12	5	13	5	6	**62**
	Mand.	1	1	1	3	7	--	7	**20**
	Mixed	--	--	2	--	1	--	--	**3**
	CBL	--	--	2	2	3	1	3	**11**
	Cant.	--	--	--	--	2	--	--	**2**
	Hokk.	--	--	--	--	1	--	--	**1**
	Malay	--	--	--	--	1	1	--	**2**
	Unclear	--	3	--	--	1	--	--	**4**

Key:

1. Months – ms
2. Utterances – utts.
3. English – English
4. Mandarin – Mand.
5. Mixed utterances – Mixed
6. Chinese baby language – CBL
7. Cantonese – Cant.
8. Hokkien – Hokk.
9. Malay – Malay.
10. Those that cannot be classified – Unclear

As Table 1 illustrates, 59% were predominantly English utterances with less than a quarter being Mandarin. The remainder 22% were utterances made in various languages surrounding the child (see above). The difference in percentage between English and Mandarin indicates that the rate of development of both languages is not the same. Moreover, although it appears to be the preferred language of the child at this point, the development of the English utterances was also fluctuating from month to month. Many reasons could be attributed to this including the child's and the researcher's health conditions. However, the discussion will not be pursued since this paper is not discussing these possibilities.

Data shown above also suggest that mixing of the two languages or sub-varieties of the languages is emerging albeit in small percentages. Such an occurrence implies that the multilingual setting of the child could have some indirect influence on the child's language abilities. However, this needs to be further verified.

Early Lexical Development

The total number of utterances captured over a seven month period is further discussed in the following section. Table 2 below provides a total of 17 utterances which were recorded at the age of 13 months with 16 of them being nouns and 1, *beh-beh* (*bye-bye),* labeled as unclassified (see Crystal, 1997). More than 90% were nouns with only 1 address form articulated in Mandarin. Data in italics show that the words were still at the developmental stage because they have not reached the phonology of the adult variety yet. In addition, as data in Table 2 show, the word 'dog' was used as a reference to 'dog' of different forms: toy dog, cartoon dog, dog-shaped box, and picture of a dog. This occurrence of the word 'dog' implies that the child's grasp of the meaning of 'dog' is quite consistent. However, the word, 'dock' could have been used as an additional word for something that looked like a dog. At this juncture, data also indicate that the word, 'berk' and 'dog' has been overextended to include other objects/animals. Thus the total number of nouns in English should be 7 instead of 15.

TABLE 2
Language development at 13 months

14 English utterances	15 nouns	*babe* (for mannequin), *berk* (for bird), *berk* (for fish), *berk* (for lights), *berk* (for toy bird), *berk* (for aeroplane), *borgh* (for images of bird), *dock* (for picture of lion) dog (for toy dog), dog (for cartoon dog), dog (for box shaped as a dog), dog (for picture of dog on shirt), *'f'* (for fish), *ish* (for fish), *mameh* (for mommy)
1 Mandarin utterance	1 noun	*ge* (哥 for "elder brother")
1 unclassified	1	*beh-beh* (for "bye-bye")

In Table 3, when the child was aged 14 months, a total of 9 utterances were captured. Although insufficient for comparison, the data still need to be considered hence, the results are presented. More than half or 55.55% of the total utterances were English nouns and they were all referents for animals and objects. Only the Mandarin noun served as an address form for elder

sister with 2 utterances categorized as unclassified because as sounds, they did not belong to any speech component.

TABLE 3
Language development at 14 months

5 English utterances	6 nouns	*kut* (for "cat"), *bed* (for "bread"), dog (for "pet dog"), *det* (for "ceiling light"), *arh* (for "elephant"), *beh* (for "teddy bear")
1 Mandarin utterance	1 noun	*cheh-cheh* (姐姐for "elder sister")
2 unclassified	2	*eh-eh* and *ksh* (sounds)

In table 4 below, at age 15 months, a total of 17 utterances were recorded with 11 being nouns, 2 being adverbs, 1 an adjective, 1 a verb and 2 as complete utterances. More than half of the nouns were in English and the adverb '*dere'* (there) was used by the child two times. In comparison, only 1 verb was articulated in Mandarin. Two complete utterances also emerged at this stage via mixed languages. In addition, there was some indication that the Child Directed Speech variety (hereby termed as Chinese Baby Language/Lingo) was also emerging in the child's utterances as seen in '*chut-chut*' and '*eek-eek*'. It is also noted that the word ''dog' has been over extended to include other animalssuch as: tiger, cows, and cat. This implies that the word type (nouns) actually produced by the child in English is actually only 7 instead of 10.

TABLE 4
Language development at 15 months

12 English utterances	10 nouns	dog (for "tiger"), dog (for "cows"), dog (for "cat"), *dek* (for "light",) dog (for "dog"), *berk* (for "birds"), *bekbi* (for "baby"), *ka* (for "car"), *bor* (for "ball"), *kor* (for "crocodile")
	2 adverbs	*dere* (for "there")
1 Mandarin utterance	1 verb	*por-por* (抱抱for *pau pau* which means "carry")
2 mixed utterance	2 Complete utterances	*bau bau bebee* (抱抱baby which means "carry baby/me") *pau pau bebee* (抱抱baby which means

		"carry baby/me")
2 Chinese baby language	1 noun	*chut chut* (for "pacifier")
	1 adjective	*eek-eek* (which means "dirty")

Table 5 illustrates that at age 16 months, a total of 10 utterances were captured. Of these 5 were nouns, 2 were verbs and 3 were unclassified because they were onomatopoeic sounds. All the English nouns were used as referents for particular objects and the dominant language, Mandarin, was used to articulate two action words or verbs: '*na'* (take) and '*thik'* (kick) followed by 1 noun, '*chee'*(aeroplane). AS in Table 4 above, data in table 5 indicate that overextension also occurred for the word, 'bor'. This indicates that the word type (noun) for the English utterances is only 2 instead of 4.

TABLE 5
Language development at 16 months

5 English utterance	4 nouns	*ka* (for "car"), *bor* (for "grapefruit"), *bor* (for "moon"), *bor* (for "pink ball")
3 Mandarin utterances	2 verbs	*na* (拿which means "take"), *thik* (踢which means "kick")
	1 noun	*chee* (机which means "aeroplane")
3 Chinese baby language	3 unclassified	*oh-oh* (imitating someone), *kedok-kedok (*sound of horse galloping), *hep* (which means "cannot do something")

Table 6 below illustrates that at age 17 months, a total of 29 utterances were captured. This figure seems to be the highest recorded thus far with 16 nouns, 2 noun phrases (NP), 2 complete utterances (*kor kor eh* and *kor-kor pau nenen-nen*), 5adjectives, 1 adjective phrase, and 3 unclassified (*chark oh*, *ee ee yah* and *beh-beh*)because they did not belong to any speech component. Note that majority (10) nouns were in English with only 3 nouns articulated in Mandarin. Data also show that of the more difficult speech components like noun phrases, verbs and adjectives, only 1adjective phrase and 1 adjective emerged in English whereas 2 noun phrases and 2 adjectives were used in Mandarin. In addition, the use of environmental languages like Cantonese, Hokkien and Malay, was also surfacing in the bilingual child's language output.

TABLE 6
Language development at 17 months

13 English utterances	9 nouns	*bor-bor* (for "ball"), *mormi* (for "mommy"), dog (for "dog"), *beh-beh* (for "teddy bear"), *bed* (for "bread"), *mon* (for "moon"), *marmi* (for "mommy"), *ka* (for "car"), *tortit* (for "tortoise"),
	1 adjective phrase	*bown* dog (for "brown dog")
	1 adjective	*darti* (for "dirty")
	1 unclassified	*beh-beh* (for "bye-bye")
7 Mandarin utterances	2 noun phrases	*yee yah* (鱼呀which means "there's fish") *ee-ee yah* (姨姨呀which means "aunty")
	2 adjectives	*mei mei* (美美which means "pretty") *tuoh-tuoh* (多多which means "many many")
	3 nouns	*eek-ork* (一二which means "one, two"), *ee-ee* (姨姨which means "aunty") *chee* (机which should be *fei-chee* which means "aeroplane")
1 Mixed utterance	1 Complete utterance (Statement)	*kor-kor* (Cantonese)*pau* (抱Mandarin) *nen-nen* (Chinese baby language) (which means "elder brother, make milk for me".
3 Chinese baby language	2 adjectives	*air-airk* for "dirty" (2x)
	1 unclassified	*chark oh* (which is similar to peek a boo)
2 Cantonese utterance	1 Complete utterance in a Question form	*kor kor eh*? (which means"where is elder brother?")
	1 noun	*por-por* (which means "granny")
1 Hokkien utterance	1 noun	*mar* (which means granny)
1 Malay utterance	1 noun	*kaka* (which means "*kakak*" or "elder sister")
1 Unclassified	1	*erh erh*(for "lizard")

Table 7 illustrates that at age 18 months, a total of 7 utterances were captured with 4 nouns, 2 adjectives and 1 verb. Clearly small in comparison,

data still need to be given emphasis. Data indicate that all the nouns were in English with an addition of 1 adjective and 1 verb which were also in English. At this stage, no Mandarin utterance was located. However, there was 1 instance of an adjective being articulated in Chinese Baby Language and 1 in Malay.

TABLE 7
Language development at 18 months

5 English utterances	4 nouns	*wote* (for "water"), *bashi* (for "bus"), *bartok* (for "buttocks"), *nek* (for "snake")
	1 adjective	*darti* (for "dirty")
1 Chinese baby language	1 adjective	*air-airk* (which means "dirty")
1 Malay utterance	1 verb	*campoh, campoh, campoh* (which means "mix")

At the age of 19 months, as shown in Table 8, a total of 16 utterances were captured with 10 nouns, 1 complete utterance, 2 verbs, 1 noun phrase and 2 unclassified. Half of the nouns were in English while the other half in Mandarin. 1 verb was articulated in Mandarin and 1 in Chinese Baby Language but none in English.

TABLE 8
Language development at 19 months

6 English utterances	5 nouns	*ki* (for "keys"), horse, *chat* (for "cat"), *mi* (for "mommy"), baby
	1noun phrase	baby car (for "that is my car")
6 Mandarin utterances	5 nouns	*ma* (马which means "horse") *mow* (猫which means "cat") *chee* (机which should be *fei-chee*飞机 or "aeroplane") *yee* (鱼which means "fish") *pei-chee* (飞机which means "aeroplane")
	1 verb	*cher kai* (走开which means go away)
1Mixed utterance	1 Complete utterance in a Statement form	*marmi* (English) *wei yai yau* (回来了Mandarin which means "mommy has come home already")
2 Chinese baby language	2 unclassified	*kok kok kok* (sound of horse galloping) *mek-mek* (sound of sheep bleating)
1 Cantonese utterance	1 verb	*kai-kai* (which means "let's go for a walk")

DISCUSSION

This paper has provided a set of data which consists of 105 utterances that were compiled over a period of seven months. Although the set of data cannot be described as impressive or parallel to other studies of young bilingual children, there are some benefits to be accumulated from the data. First, this small set of data was extracted based on a longitudinal study which focussed on observing the bilingual child from a close range within a naturalistic environment. In that regard, the data could be considered as painstaking and authentic. Despite that, the data were able to show a particular pattern of language development in terms of the speech components and this can contribute to knowledge. Second, the observations were set within the context of a growing child who was developing in his naturalistic home environment, thus it provides spontaneous data. Third, data were not simulated or forcefully elicited as studies in laboratories tend to do; therefore, the child understudy was not under any form of duress. Instead, data were extracted as and when they occurred based on the child's natural efforts, thereby making this study authentic, natural and spontaneous. This paper takes into consideration that all children develop differently and at different paces. It also takes into consideration that

Malaysia may be a slightly different context as compared to other countries since it is multicultural and diverse in ethnicity and values. In trying to locate the rate of bilingual language acquisition of one bilingual child raised in a multilingual setting, this paper has provided evidence which supports the claim made by various reports of monolingual children. In other words, Brown's (1973) and others claim of nouns being prevalent in young children's words; Hoff's (2009) and others claim of the emergence of verbs; Volterra and Taeschner's (1978) and others suggestion of preliminary language mixing of words in early child bilingualism are all evident in this study.

As those researchers mentioned above have claimed of bilingual children, one language may predominate in the bilingual child's utterances and in the context of this paper, it has been mentioned that the bilingual child's preferred language is English, the exclusive language used by the mother and the child. The dominant language of Mandarin was less preferred as shown in the utterances. To illustrate the different rate of acquisition for both Mandarin and English, this paper has also provided some evidence which shows that nouns seem to be articulated more in English whereas more noun phrases, verbs and adjectives were articulated in Mandarin, a language that was less articulated in terms of frequency. Fromkin et al (2003) have mentioned this likelihood in bilingual children.

There are, however, limitations in this study in that, besides being a case study, the findings of this paper cannot be compared to any local study of bilingual language acquisition as thus far, there are no previous data to compare them with. In addition, there is still a need to verify why the child in study prefers speaking in English as compared to the dominant language, Mandarin. Piaget (1955) mentions that the child's cognition and maturation needs to be ready before any form of knowledge including language can be acquired. Hence, it is possible that the acquisition of Mandarin may take a longer time for this child to internalise as compared to English.

Where there is an emergence of mixing occurring in the bilingual child's utterances, this paper can only conclude by saying that it was due to the lexical gaps caused by the child's mental processing, a consequence due to the input provided by adults. As Fromkin et al. (2003) say, certain vocabularies are used in certain situations only thus, there will lexical gaps in certain situations. As Yip and Matthews (2007) and Fromkin et al (2003) clearly state, bilingual children do not take the same path as monolingual children do in learning two languages simultaneously. Thus, it is acceptable that there will be some lexical gaps in their utterances of both languages. Volterra and Taeschner (1978) and Hoffmann (1997) have indicated this phenomenon as the initial confusion of words and language which will subsequently separate to become two linguistic systems as the child grows.

Table 9 helps to illustrate the bilingual child's rate of bilingual language acquisition for both English and Mandarin.

TABLE 9
Overall grammatical development in Mandarin, English and mixed languages

Age in mths		13	14	15	16	17	18	19	Total
Unclassified		1	2	-	3	1	-	2	**9**
Nouns	Mand.	1	1	-	-	3	-	5	**10**
	Eng.	7	6	7	2	9	4	5	**40**
Noun phrase	Mand.	-	-	-	-	2	-	-	**2**
	Eng.	-	-	-	-	-	-	1	**1**
Verbs	Mand.	-	-	1	2	-	-	1	**4**
	Eng.	-	-	-	-	-	-	-	**-**
Adjectives	Mand.	-	--	-	-	2	1	-	**3**
	Eng.	-	-	-	-	1	-	-	**1**
Adjective phrase	Mand.	-	-	-	-	-	-	-	**-**
	Eng.	-	-	-	-	1	-	-	**1**
Complete utterances	Mand.	-	-	-	-	-	-	-	**-**
	Eng.	-	-	-		-	-	-	**-**
	Mixed			2		1		1	**4**

As illustrated by the data in Table 9, the bilingual child was seen to be articulating a total of 105 words between the ages of 13 and 19 months. Of these words, more than half were noun words and such an occurrence has been confirmed by many researchers including Hoff (2009) as a normal occurrence. Of the total number of words articulated, it was obvious that some words were redundant in that they had been overextended to include other objects/animals as in the case of 'berk', 'dog', and 'bor'. Hence, if going by the word type i.e. the words 'dog', 'berk' and 'bor' are counted as one irrespective of how they were used to include other objects as in the manner of overextensions, it can only be said that a total of 40 English nouns were produced (instead of 53) within seven months.

In his work, Nelson (1973) grouped the vocabulary of young children into 6 categories but in this study, the small set of data (including overextensions) of this Malaysian-Chinese bilingual can be grouped into 9 simple categories:

1) Animals: - **dog**, **bird**, **cat**, **elephant**, **teddy bear**, **crocodile**, **lizard**, **fish**, **snake**
2) Address forms for the people in his life: - ***cheh-cheh***(Mandarin for "elder sister"), ***kakak*** (Malay for "elder sister"), **mommy**, ***kor-kor***,

(Hokkien for "elder brother"), ***por-por*** (Cantonese for "granny") and ***mar*** (Hokkien for "granny")

3) Things surrounding the child: - **ball**, ***chut-chut*** ("pacifier")
4) Vehicles : - ***ka*** ("car"), ***chee***, ***pei-chee*** ("aeroplane"), ***bashi***("bus")
5) Fruits : - **grapefruit**
6) Anatomy: - **buttocks**
7) Other concepts: - **moon**, **water**
8) Sounds made by animals: - ***kedok-kedok***, ***mek-mek***, ***kok-kok***
9) Complete thoughts: - **mommy is home**, **elder brother make milk**, **where is elder brother?**

CONCLUSION

This paper has attempted to compare the bilingual child's spoken words of Mandarin and English. It also suggests that the dominant language used within the child's environment is not necessarily the child's preferred language of use. The paper also highlights that the rate of acquisition for the two languages he was simultaneously exposed to may differ in terms of speech components. This study has shown that nouns were mainly articulated in the exclusive language of English whereas there were more noun phrases, verbs and adjectives in the dominant language, Mandarin. As a case study, this paper has looked into the data of a bilingual child compiled between 13 to 19 months of age. However, despite the findings, the analysis presented here cannot be generalised for all Malaysian bilingual children due to the limited set of data. Moreover, this study focuses on the production of Mandarin and English words only; whereas, in Malaysia, people speak other languages too including Malay, Tamil and various other dialects. Future studies focussing on young children and their language abilities should explore Malaysian-Malay and Malaysian-Indian children as comparative studies.

The implication of this study is that young children may be exposed to more than one language at a time but how these languages will develop may be attributed to the child's individual ability which could be facilitated by his cognitive development as well as his socialisation experiences. However, for the purpose of encouraging young children to develop bilingual or trilingual linguistic skills, various language input should be consistently provided to the child because the more the input, the more diverse is the child's linguistic repertoire. Environmental languages which are heard but not specifically spoken to the child can have indirect influence over the child's language output.

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