A Case Study on the Acquisition of Plurality in a Bilingual Malay-English Context-bound Child

Rabiah Tul Adawiyah Mohamed Salleh
rabiahtuladawiyah@iium.edu.my
International Islamic University Malaysia

Satomi Kawaguchi
S.Kawaguchi@westernsydney.edu.au
Western Sydney University, Australia

Bruno Di Biase
B.DiBiase@westernsydney.edu.au
Western Sydney University, Australia

ABSTRACT

The early development of simultaneous bilinguals has been at the core of heated controversy since the mid-seventies. The Unitary Language System Hypothesis by Volterra and Taeschner saw early development as a single language system gradually diverging into two systems. On the contrary, Meisel (1989), De Houwer (1990) and Paradis and Genesee (1996) suggested the early separation of two linguistic systems. Neither position, however, considered language environmental conditions constraining development as key variables. This paper aims to show that the predominant environmental languages to which the Malay-English bilingual child in the current study was alternately exposed might have played an important role in shaping the child's acquisition of plurality in each language. Throughout the period of investigation (from age 3;4 to 3;10 and at 4;8) the child's interactions were regularly audio and video recorded. The current study focuses on the development of plural marking in a simultaneous Malay-English bilingual child. Interestingly, at a point when English was environmentally predominant, the child would occasionally use the English plural suffix *-s* on Malay nouns. After moving back to Malaysia, the child used reduplication to mark plurals in both languages. The findings of this study indicate that the predominant linguistic environment in which the child grows and develops plays an important role in shaping the child's language production.

Keywords: Bilingual development; Context-bound; Language environment; Malay; English; Plural

INTRODUCTION

Bilingualism/multilingualism has become a norm in this age of globalisation. One indicator is that there has been a growing interest in studies on children acquiring more than one language, which reflects the awareness that bilingualism/multilingualism is a very common phenomenon in children (Genesee, 2015). Currently, the specific field investigating bilingual children's language acquisition is termed Bilingual First Language Acquisition (henceforth, BFLA). In many BFLA studies, those investigating the role of contexts are scarce (Lanza, 2004; Qi, 2011). There is far more emphasis on the linguistic structures produced by bilingual children than the situational contexts in which communication takes place. The contexts in which these bilingual youngsters acquire their languages are usually treated as a negligible background variable.

Closely related to context is input. De Houwer (2009) defines regular input as the

daily contact with a language through interpersonal interaction or by overhearing the language. The case of input offers an interesting contrast: the input monolingual children receive is exclusively 100% from one language but the input bilingual children receive is divided between their two developing languages (Bialystok, 2001). Indeed, input is seldom equal between the languages and it depends on the amount of time the children spend in each language and the domains of life in which they experience and use each language (Grosjean, 2015). In this paper, input specifically refers to the linguistic environments that the child was exposed to. The subject of this study was a Malay-English bilingual child exposed to both languages from birth (further details about the child's linguistic background is explained in the methodology section). Given the variability in terms of input exposure that bilingual children receive, this paper seeks to address the following research questions, namely;

- How does the simultaneous Malay-English bilingual child develop plural expressions in the two languages, given the considerable typological differences between them?
- Does linguistic environment play an important role in the development and production of plural expressions in the child?

This paper comprises two sets of analyses: the first presents the investigation of the child's plural acquisition from age 3;4 (i.e., three years and four months) to 3;10. The second complements the first; it is a one-time study that presents results of the child's plural marking systems at 4;8, where the child's linguistic environment has not only changed but was also very different from before. Before proceeding with the study, a brief description of the grammatical structures of plurality between Malay and English is explained in the next section.

PLURALITY IN MALAY AND ENGLISH

Malay and English belong to different typological families: Malay is an Austronesian language whereas English is an Indo-European language (Tadmor, 2009). Languages typically differ in terms of marking the concept of one (singular) versus more than one (plural) (Barner, Lui, & Zapf, 2012). Naturally, Malay and English too, have different grammatical systems when it comes to marking plurality.

In English, plurality is generally expressed through the addition of morpheme *–s* for most countable nouns. There are also irregular suffixes such as *-i*, *-ae* and *-a* (as in *cacti, formulae, phenomena*), as well as the suffix *-(r)en* that shows up only in *oxen*, *children,* and *brethren* (Carstairs-McCarthy, 2002). Malay, on the other hand, typically marks plural items for countable nouns through reduplication: *anak-anak* "a number of children", is the plural form for *anak* "a child" and *buku-buku* "books" pluralises *buku* "a book" (Hassan, 2006; Sew, 2007; Tadmor, 2009). In addition, Malay plurals are also marked through the use of numeral classifiers, where in this case, the plural is not marked in the noun (e.g., *3 orang anak* "3 children") (see Salehuddin & Winskel, 2009), which occurs at the phrasal level (i.e., in the noun phrase). Other than using the numeral classifiers, plurals are also marked through the infixes -em- as in *jari-jemari* "fingers" and *tali-temali* "many types of rope" (Ahmad, 2001; Hassan, 2006). The use of infixes, however, is rarely seen in day-to-day language use. Despite these other forms of plural markings in Malay, the current study investigates only the child's use of plurals at the word level, which is the more typical form of plurals in the child's environment.

Table 1 further elaborates the critical differences in plural structures between English and Malay, showing, among other things, the complexity of each of the systems the child has to learn simultaneously and eventually master.

TABLE 1. Plural, singular and generic expressions in Malay and English

Malay	English
1. The count-mass distinction is ambiguous in Malay. Malay nouns lack the feature of quantity because a noun can be construed either as singular or plural (Sew, 2007). Malay is also a classifier language. Classifiers are used for countable nouns and uncountable nouns, e.g. *Tiga* 'three' *ekor* tail (CL) *kucing* 'cat' (three cats); *tiga* 'three' *buku* 'book' (CL) *roti* 'bread' (three loaves of bread) (see Salehuddin & Winskel (2012) for further information on classifiers in Malay).	1. The count-mass noun distinction is a grammatical feature of English. Mass nouns in English are classified with mensural classifiers and unitisers, e.g. some cheese, two pounds of rice, a drop of water (Sew, 2007). English also has an open class of words that are similar to classifiers, often rigid in their collocations, i.e. a loaf of bread, a lump of cheese, a herd of cows, a school of fish, and a murder of crows.
2. Though Malay nouns may be interpreted as either singular or plural, reduplication encodes plurality in Malay. Reduplication for count nouns is commonly a simple N-N duplicate e.g., *pelajar-pelajar* 'students', *buku-buku* 'books, *anak-anak* 'children' (Sew, 2007; Tadmor, 2009). There is also the reduplication with the infixes *-em-*, e.g. *tali- tali* 'rope' versus *tali-temali* 'different types of rope' and *gunung-gunung* 'mountains' versus *gunung-gemunung* 'many types of mountains' (Hassan, 2006).	2. The regular English plural is morphologically marked on countable nouns by the inflectional suffix -s. This -s suffix has three allomorphs: [s] (e.g. cats or lamps), [z] (e.g. dogs or days), and [əz] (e.g. horses or watches) (Carstairs-McCarthy, 2002; Ettlinger & Zapf, 2011).
3. There are lexically determined reduplications with the addition of the suffix *-an*. N-N+an designates the meaning of varieties, as in *buah* 'fruit' to *buah-buahan* 'fruits of all kinds' and *bunga* 'flower' to *bunga-bungaan* 'various types of flowers' (Sew, 2007). Reduplication may also change some parts of the duplicate, e.g., *kuih* 'cake' to *kuih-muih* 'a variety of cakes'', *lauk* 'dish' to *lauk-pauk* 'many types of dishes' (Hassan, 2006; Kroeger, 2005).	3. There are some lexically determined irregular plural forms, e.g., children, women. Some nouns are also isomorphic, e.g., sheep, fish, deer (Carstairs McCarthy, 2002).
4. Generic entities in Malay reflect "minimal marking tendency" (Sew, 2007, p. 39). Thus, generic entities in Malay, whether countable or uncountable, are expressed with singular forms, e.g., *Saya suka epal* 'I like apples' *Air adalah sumber hidup* 'Water is a source of life'.	4. Generic entities in English are expressed with plural -s if they are countable e.g., I like apples, but uncountable generic entities use the default (singular) form e.g., I like tea, I like coffee. However, generics in English can also be expressed through definite singulars (e.g., The tiger is a ferocious beast) and indefinite singulars (e.g., a tiger is a ferocious beast) (Hollander, Gelman & star, 2002)

LITERATURE REVIEW

The linguistic development of simultaneous bilingual children has been intensely debated in BFLA studies. There are two main positions with regards to this issue. The Unitary Language System Hypothesis (henceforth ULSH) proposed by Volterra and Taeschner (1978) saw early development as a single language system that gradually diverges into two language systems. Conversely, Padilla and Liebman (1975) had earlier claimed that children make use of language-specific rules, suggesting the early presence of two distinct linguistic systems. Their view gathered authoritative support from studies by Meisel (1989), De Houwer (1990), and

Paradis and Genesee (1996), who criticised ULSH for failing to make correct predictions, and put forward a 'separate development' hypothesis. However, neither position considered language environmental conditions as one of the key variables in bilingual children's language development.

Over the past two decades, studies in BFLA have increased significantly, both in terms of the number of scholars and geographic diversity (De Houwer, 2009). BFLA children have been studied from various language pairs including constellations with Asian languages such as English-Cantonese (Yip & Matthews, 2007), Mandarin-English (Qi, 2011), and Japanese-English (Itani-Adams, 2013). However, a thorough search of BFLA literature reveals that there are limited studies on Malay-English bilingual children. Mohamed Salleh, Kawaguchi, Jones and Di Biase (2016) investigated the development of plural expressions in a Malay-English bilingual child but the effect of environmental input was not significantly discussed. In early L2 context, a study by Hardini, Kawaguchi, Reid, and Di Biase (2019) found that their bilingual Indonesian-English kindergarteners' development of plural marking adhered to the developmental trajectory predicted by Processability Theory (Pienemann, 1998; Di Biase, Kawaguchi & Yamaguchi, 2015). The children acquired single English words (or formulaic expressions) first (e.g., *mango*), followed by the lexical plural (e.g., *mangoes*) and finally reaching the phrasal plural agreement stage (e.g., *a lot of mangoes*). However, the relation to linguistic environmental exposure was not discussed in this study either. Other than these studies, to our knowledge, studies on Malay-English bilingual children are scant.

As stated earlier, input is defined as the speech that children hear regardless of whether it is addressed to them or not (De Houwer, 2009). Input is a crucial factor in children's language development. The bilingual child's input variety is contingent on several important factors, namely, the native language of the parents, the dominant environmental language of the community, and the strategy parents adopt in speaking to the child. Pioneering studies in bilingualism such as those by Ronjat (1913) and Leopold (1939) claimed that the one-parent-one-language input is the most effective method to raise bilingual children. However, there are at least five other types of input in which children grow up to be bilingual speakers, such as those described below (based on Romaine, 1995, pp. 183-185).

TABLE 2. Type and variety of language input

Type	L1 of the parents and their strategy	Language of the Community	Example of studies
Type 1: one person-one language	The parents have different first languages with each having a certain degree of competence and skills in the other's language. The parents each speak their own language to the child. Most bilingual studies to date fall under this type of family bilingualism.	The language of one of the parents is the language used by the community.	Ronjat (1913), Leopold (1939-1949), Taeschner (1983), De Houwer (1990), Dopke (1992), Lanza (2004), Yip and Matthews (2007), and Itani-Adams (2013) are examples of Type 1. Yip and Matthews (2007) investigated the development of Cantonese-English children in Hong Kong. The mother is a native speaker of Cantonese who addresses the children in the language of the community (Cantonese). The

			British English father speaks English to them.
Type 2: Non-dominant home language/ one-language-one environment	The parents have different first languages. The child is exposed to the dominant language of the community only when outside the home domain (e.g., nursery). Type 2 is similar to Type 1 except in Type 2, the language of the community is introduced later in the child's development and is only limited to outside the home domain (Zhu & Li Wei, 2005).	One of the native languages of one of the parents is the dominant language of the community, but the parent does not use that language at home.	Fantini (1985), Vihman (1985), and Deuchar and Quay (2000) are examples of Type 2. In Deuchar and Quay (2000), the mother of the bilingual Spanish-English child is a native British-English speaker who speaks to the child in Spanish. The father is an L1 Spanish speaker. In England, the child is addressed in Spanish at home and is only exposed to English outside home.
Type 3: Non-dominant home language without community support	The parents share the same native language. Although the parents speak the language of the community, they opt to speak their heritage language with the child.	The dominant language is not that of the parents.	Qi (2011) is a perfect example of Type 3. The parents who are Mandarin-English speakers residing in Australia, speak Mandarin to the child at home. The child is exposed to English mostly in the extra-domestic environment. This is the most common type of bilingualism for immigrant families residing in English-speaking countries.
Type 4: Double non-dominant home language without community support	The parents have different first languages. The parents speak their own language to the child from birth. The language of the community is introduced later to the child as the parents have each an L1 different from each other's and from the predominant language in the community.	The dominant language is different from either of the parent's languages.	In Hakansson and Waters' study (2016), the child is a quadrilingual child who speaks Swedish, English, Russian, and French. The family resides in Sweden and the parents have different first languages; the father speaks French and the mother speaks Russian. The child is addressed in the parent's respective first languages.
Type 5: Non-native parents	The parents share the same native language. One of the parents always addresses the child in a language that is not his/her first or	The dominant language is the same as that of the parents.	Saunders (1982, 1988) documented his three children's stages of English and German language development. The children were

	native language.		raised in Australia and Saunders addressed them in German, which is not his native language. This case is quite rare.
Type 6: Mixed languages	The parents are bilingual. Parents code switch and mix the languages	The community may also be bilingual and the languages used are the same two languages spoken by the parents.	Kuang (2012) investigated the development of a Mandarin-English child in Malaysia. The parents speak both Mandarin and English and code-switch frequently when addressing the child.

As shown in Table 2, most studies on BFLA dealt with Type 1 contexts. According to Qi (2011), Type 3 and Type 6 are the most common input variety among immigrant communities in a host country such as Australia. Although bilingual acquisition studies with Type 6 input varieties are limited, the situation probably best represents bilingual communities worldwide. Type 5, in which the parents or one of the parents talk to the child in a language not of his/her L1, is also the most common type in Malaysia. This is due to the fact that English is the second language of the nation and therefore, many Malaysian parents opt to speak English to their children at home (Hashim, 2014; Salehuddin, 2012). This typology is, however, not exhaustive.

With respect to the bilingual child in this study, the types of input variety she received changed over time. This is due to the fact that her parents did not always live in the same country as she was growing up. During these periods, communication strategies between the family and the child also changed. When the child was born, she was exposed to Type 5, in which the mother spoke Malaysian English (MalE) to her. When they moved to Australia, the situation shifted to Type 3. After 29 months in Australia, they moved back to Malaysia and the strategy reverted to Type 5. This is further detailed in the methodology.

According to Meisel (1989), the nature of dominant and weaker language pertains to the presence and frequency of use (i.e., performance rather than competence). The language that is highly used and activated by the child is considered the dominant language. Thus, in Australia, Australian English (AusE) is the language predominantly used in the broad community and the institutions whereas in Malaysia, Malay is the predominant environmental language. This is likely to tip the activation and the use of the environmental language in the bilingual child.

In children language acquisition studies, Mean Length of Utterance (henceforth MLU) has been used widely as a general measurement of grammatical development (Brown, 1973). In the context of bilingual children, MLU can be used to indicate progress in both languages as well as to show the relative dominance between the two developing languages (Dopke, 1998; Itani-Adams, 2013; Yip & Matthews, 2006, 2007). In this paper, MLU is used to show Rina's (pseudonym) basic progress in English and Malay over the period of investigation. Processability Theory (Pienemann, 1998; Di Biase, Kawaguchi & Yamaguchi, 2015) is the framework used to analyse Rina's plural productions. Processability Theory (henceforth PT) is a theory of language acquisition based on language processing procedures. Originally devised to predict the grammatical path of acquisition in second language learners, PT has found support in studies covering several typologically different L2s, such as Arabic, Chinese, English, German, Italian and Japanese, among others (Di Biase & Bettoni, 2015; Kawaguchi, 2015) as well as, significantly, in BFLA (Itani-Adams, 2013; Pienemann, Keßler

& Itani-Adams, 2011).

Clark and Nikitina (2009) found that six of their L1 English children (age two to three years old) used semantically compatible forms before acquiring the conventional English plural expressions. Their subjects produced mainly quantifiers+ default form (e.g., *two blanket, two duck, more cookie*) and some children used iteration with pointing gestures (e.g., *lamp lamp lamp*). In this paper, the categories used by Clark and Nikitina was also adopted when encoding Rina's plural productions (see Table 3). The following section describes the methodology employed in this study.

METHODOLOGY

THE SUBJECT AND HER LINGUISTIC BACKGROUND

The subject is a girl named Rina (pseudonym). The current study analyses Rina's plural production from 3;4 to 3;10 and at 4;8. The study is a subset of a bigger corpus of Rina's Malay and English language acquisition from 2;10 to 4;8 (see Mohamed Salleh, 2017, for the complete study). Rina was born in Malaysia and lived there until the age of 1;11. She resided in Australia with her family when she was 1;11 up till the age of 4;4,. Rina is the first born and the only child in her family. She was exposed to both English and Malay from birth when she lived in Malaysia; her parents opted to raise her using the one parent-one language approach; mother speaks MalE with her whereas the father speaks Malay. Communication between mother and father is always in Malay, both in Malaysia and in Australia.

In Malaysia, Malay was the language most often spoken to Rina. With the exception of the interaction between Rina and her mother, all communication and interaction in other domains, from extended family, friends, and outside the home domain, were conducted in Malay. However, when the family moved to Australia, AusE gradually became the most frequently used language. Outside the home domain, AusE was the language in which everyone spoke to Rina - mainly the caretakers who were native speakers of AusE. At home, the parents addressed to Rina in Malay. Therefore, in the context of Rina's life in Malaysia, Malay was the predominant language in the broad environment and at home whereas English, because of the limited input condition, was the least used. Conversely, in Australia, the most frequently used language for Rina was AusE and Malay was less frequently used. Figure 1 estimates the proportion of each language in the linguistic environments from birth up till age 4;8.

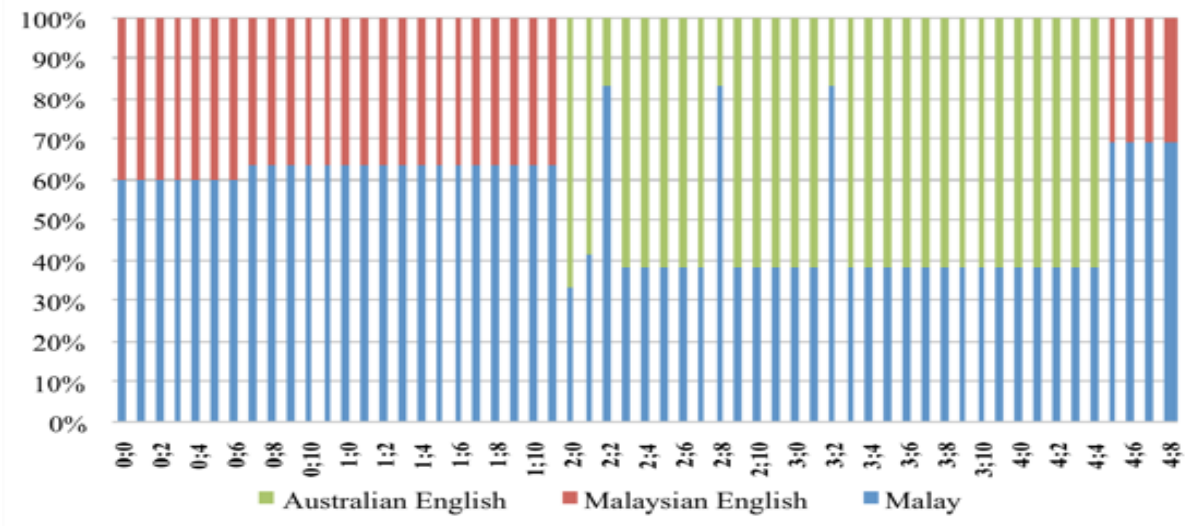

FIGURE 1. Proportion of Malay and English environments from birth to 4;8

From Figure 1, it can be seen that Rina's linguistic environment varied from time to time. From birth to age 1;10, when the family lived in Malaysia, her mother chose to speak MalE to the child. When they lived in Australia, the parents chose to speak Malay in the home domain because the extra-domestic environment, including the childcare facilities, only provided English input. However, when there were English-speaking guests at home, the mother would speak English (MalE) to Rina as well as to the guests.

When Rina was 4;4, the family returned to Malaysia and the mother reverted to addressing the child in MalE. From age 4;4 onwards, Rina went to school in Malaysia. At school, she received consistent Malay and English exposure since most of the teachers and her peers were also Malay-English bilingual speakers. This type of exposure strongly suggests Type 6 input variety.

DATA COLLECTION

The data in this study were collected from a longitudinal study while Rina was in Australia (from 3;4 to 3;10), and it includes one-off elicitation sessions in a separate Malay and English context after the child moved back to Malaysia (at 4;8). Rina's speech from age 3;4 until 3;10 (i.e., when she was in Australia) was audio and video recorded using Olympus linear PCM recorder and Rode microphones. The child was recorded over two different sessions on a weekly basis: 1) a 30-minute to an hour English session (e.g., when she was playing with other children whose first language is AusE in the presence of her parent(s) and the other children's parents) and; 2) a 30-minute to an hour Malay session when Rina was communicating with her father in Malay. The usual activities during the recording sessions include Rina's spontaneous speech when playing with her toys, during outings and shopping, while eating, and when doing other daily routines. In addition to recording her spontaneous speech, picture tasks eliciting linguistic expressions of single and multiple items were used during the English and Malay sessions. Examples of pictures used in the sessions are in Figure 2. Although this type of data obtained through communicative tasks may not be altogether spontaneously produced, it is one of the most practical and effective ways to obtain information on linguistic items that may not be so common in the child's speech or the linguistic environment (Larsen-Freeman & Long, 1991).

Four months after returning to Malaysia, at age 4;8, Rina's production was recorded in one elicitation session in Malay and two days later, another elicitation session in English. The elicitation session was conducted several days apart to avoid priming effects. Similar to the earlier recordings between the ages 3;4 and 3;10, Rina's father and mother showed Rina pictures of single and multiple entities (as in Figure 2) to elicit her expression of plurality.

FIGURE 2. Example of pictures used in the elicitation sessions

eISSN: 2550-2131
ISSN: 1675-8021

DATA ANALYSIS

The recordings were transcribed on ELAN (Sloetjes & Wittenburg, 2008), a software used to create annotations on video and audio resources. Rina's utterances were analysed using MLU (Brown, 1973). MLU is calculated by counting the number of morphemes in each utterance, and then divide the total number of morphemes by the number of utterances, as in the example below:

Computing MLU:

dat bunny 2
dat bunny get juice on it 6
sloppy bunny 2
bunny hops 3
Total: 13/4 = 3.25 MLU

After the MLU for Malay and English were calculated, each singular and plural output of the child in singular and plural contexts in the transcribed utterances was tagged in ELAN. The plural output in the corpus' plural contexts were then classified into several plural categories, based on the formal categories of grammar (as shown in Table 3) following Processability Theory (Pienemann, 1998) as used by other studies of bilingual development (e.g., Itani-Adams, 2013) and child English L2 acquisition (Di Biase, Kawaguchi &Yamaguchi 2015). However, some of Rina's plural utterances did not conform to the formal grammar categories (e.g., iteration). For such utterances the categories employed in previous plural acquisition studies among English-speaking children in the literature were used (e.g., Clark & Nikitina, 2009).

TABLE 3. Plural categories coded in Rina's speech in Malay and English

Plural categories	Definition of the categories	Malay examples with emergence point	English examples with emergence point
Default form	When the child was shown a picture of multiple entities, the child used the same form she used for the single entity.	*kucing* (cat) *anjing* (dog) Age of emergence: 3;4	*cat* *dog* Age of emergence: 3;4
Counting and pointing	When shown pictures of multiple entities, the child pointed and counted the items without uttering the noun.	*satu dua tiga empat* Age of emergence: 3;4	*one two three four* Age of emergence: 3;4
Iteration	The child repeated the noun based on the number of entities in the picture.	*kucing kucing kucing* *anjing anjing anjing* Age of emergence: 3;4	*cat cat cat cat* *dog dog dog dog* Age of emergence: 3;4
Suffix *-s*	The child used the suffix *-s* to express plurals. There were also instances in which the child used Malay nouns with suffix *-s*.	*mainans* 'toys' *kucings* 'cats' Age of emergence: 3;6	*cats* *dogs* Age of emergence: 3;5
Incipient reduplication	As the child was just	*kucing-kucing*	*cat-cat*

eISSN: 2550-2131
ISSN: 1675-8021

	beginning to acquire reduplication for multiple entities, her utterances were labelled as *incipient reduplication*. Reduplication in the corpus was only classified as a plural category if the child reduplicated nouns when shown a picture of more than two entities. For instance, if the child was shown a picture of 10 apples and she described the apples as *apple-apple*, this utterance is considered as an instance of incipient reduplication.	*anjing-anjing* Age of emergence: 3;8	*dog-dog* Age of emergence: 4;8
Indefinite quantifier with default form	The child uses indefinite quantifiers such as *lots of*, *many*, *banyak* 'many' and *semua* 'all' with default form to express plurals in phrasal constructions.	*Banyak cat* 'many cat' *Banyak kucing* 'many cat' Age of emergence: 3;8	*Lots of book* *All the ball* Age of emergence: 3;8
Indefinite quantifier with suffix *–s*	The child uses indefinite quantifiers *lots of* and *many* with the suffix *-s* to refer to more than one item. There were also instances in the Malay context in which the child code-switched to English indefinite quantifier with suffix *-s* to describe plural.	*Many cars* (Rina code-switched to English) Age of emergence: 3;10	*Lots of books* *Lots of toys* Age of emergence: 3;8
Numeral quantifier with default form	The child uses numeral quantifiers such as *ten* and *two* with default form to express plurals in phrasal constructions.	*Dua kek* *Tiga buku* Age of emergence: 3;10	*Ten flower* *Two car* Age of emergence: 3;8
Numeral quantifier with suffix *-s*	The child uses numeral quantifiers such as *four* with suffix-*s* to express plurals in phrasal constructions.	No occurrence of this construction in Malay context.	*Four brooms* *Two cats* Age of emergence: 3;8

RESULTS AND DISCUSSION

As an aid to the interpretation of Rina's linguistic development concerning plural in both languages, her Mean Length of Utterance (MLU) is presented below. Figure 3 provides an overview of Rina's MLU development in Malay and English from 3;4 to 3;10.

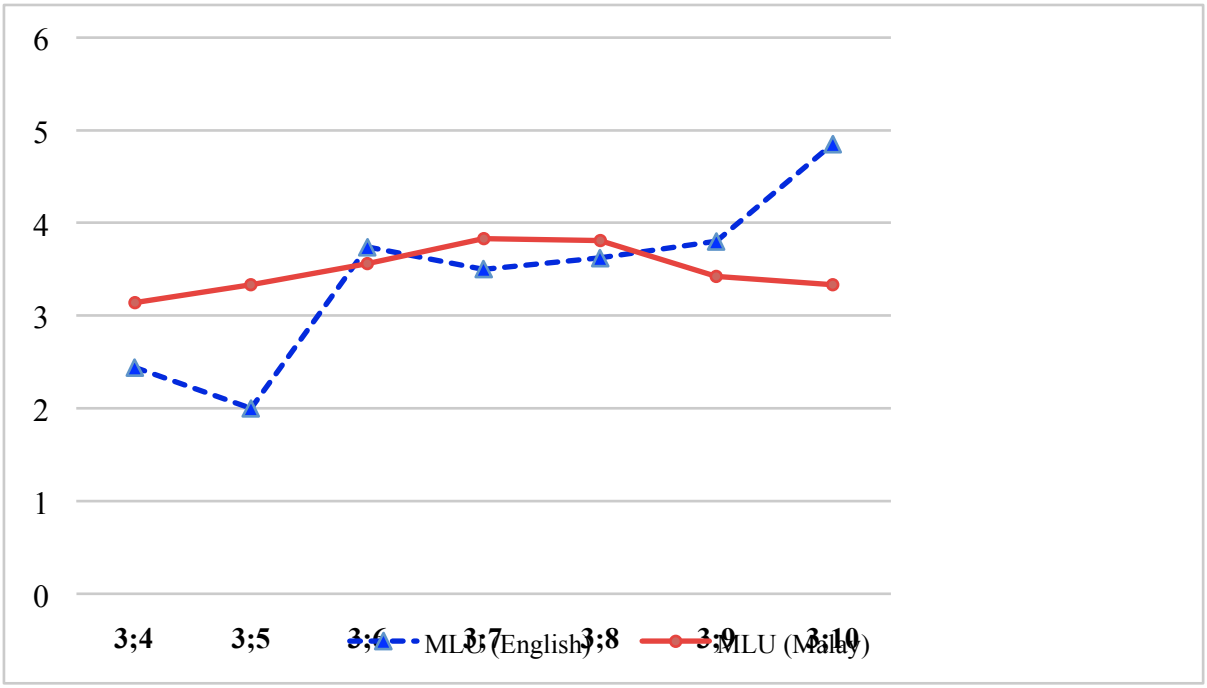

FIGURE 3. Rina's Malay and English MLU

Generally, the MLU for both Malay and English gradually increased over the period of Rina's stay in Australia. The increasing MLU values in Malay and English demonstrate Rina's growing ability to express herself in both languages. In general, Malay MLU developed steadily and did not show any rapid increase at any age throughout her stay in Australia. English MLU on the other hand, was at a lower point than Malay at 3;4 and progressed at a slower pace. However, a conspicuous increase can be observed between ages 3;5 and 3;6; when Rina's English MLU increased rapidly from MLU 2.0 to MLU 3.74. It is also interesting to note that when Rina's English MLU underwent another surge between 3;9 and 3;10, her Malay MLU dropped a little.

As for the one-off elicitation sessions (after returning to Malaysia) at 4;8, Rina's English MLU was 5.76 whereas her Malay MLU was 5.06. Given that her exposure to Malay was considerably higher at 4;8, it was initially odd to find that her Malay MLU was lower than her English. However, further analysis of the Malay utterances shows that Rina spoke the colloquial variety of the Malay language. Since this variety of Malay is morphologically 'simpler' than the standard variety (Goddard, 2005; Nik Safiah Karim, Onn, and Haji Musa, 1993), affixations are optional and seldom used. For instance, in the standard variety of Malay, instead of *tidak apa*, 'it's ok', the child used the colloquial variety *takpe*. The child also used *jap* 'a moment' instead of *sekejap*. This might explain why Rina's Malay MLU was lower than her English despite receiving higher input from the current linguistic environment.

Rina's plural output in English and Malay contexts from 3;4 to 3;10 are shown in Figures 4 and 5. The x-axis marks Rina's age while the y-axis represents the number of occurrences distributed according to the categories presented in Table 3.

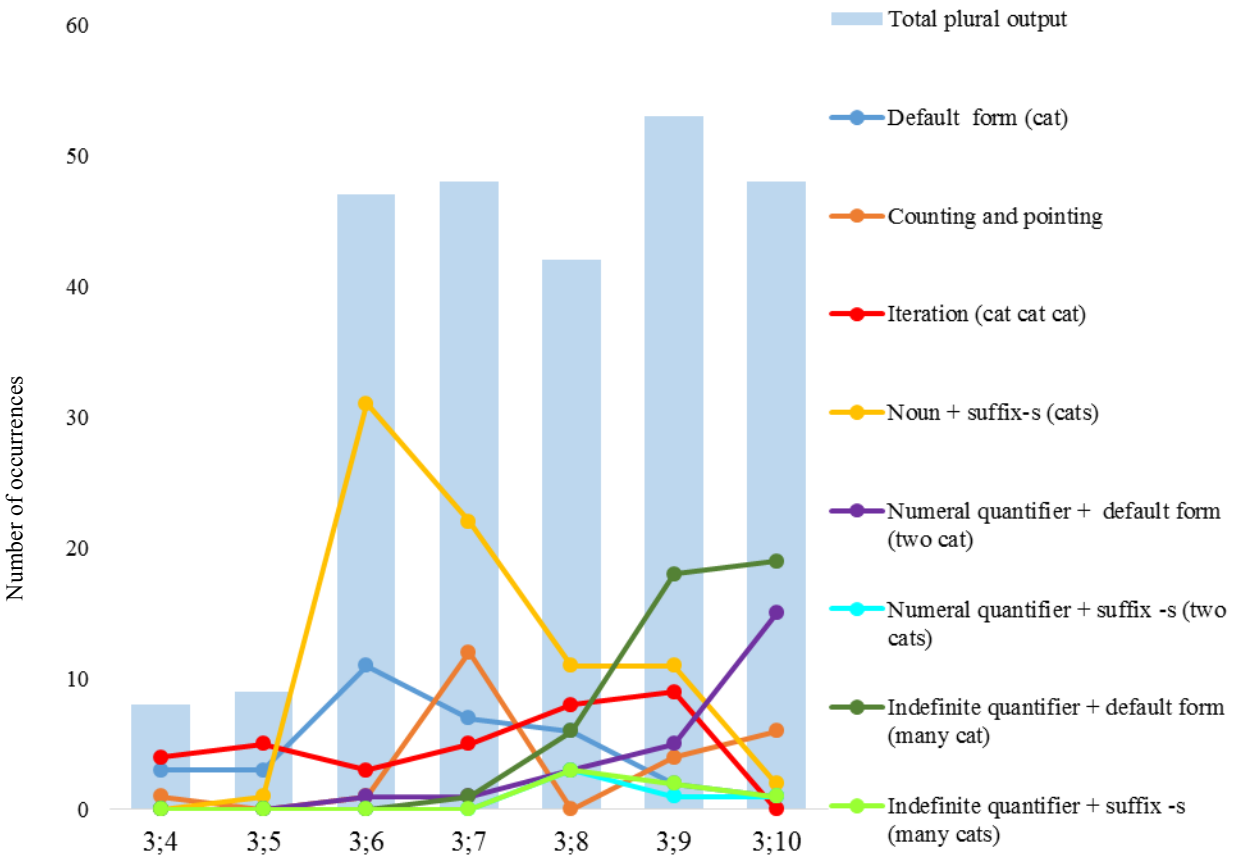

FIGURE 4. Rina's plural development in English context from 3; 4 to 3; 10

The following discusses the findings based on the research questions posed earlier, the first of which was:

- How does the simultaneous Malay-English bilingual child develop plural expressions in the two languages, given the considerable typological differences between them?

In the English context, Rina began with a low plural output at age 3;4 and 3;5, in parallel with a low English MLU at that age. At 3;4 and 3;5, the most frequently used plural expressions in English produced by the child was iteration (e.g., *cat cat cat cat*). When Rina iterated plural items, the utterances were always accompanied by pointing gesture to each of the items. This strategy is indeed iconic; it reflects the child's one-to-one form-function mapping: every object is represented with a lexical item and she also individuated each entity in the plural context with her pointing gesture. It also well represents the 'single word' stage in PT.

At 3;6, there was a surge in the occurrences of plural expressions, mainly the noun + suffix *-s* (e.g., *cats, dogs*). The MLU spurt from 3;5 to 3;6 reflects the child's lexical and grammatical development in English. The child acquired more words in English hence the greater plural output. The correlation between the child's lexical growth and plural output is compatible with Sansavini et al. (2006, p. 200), who state that "grammatical abilities develop not only as a function of age but also depend crucially on lexical abilities. Indeed, word combinations are usually absent when children still produce less than 100 words and remain infrequent until the vocabulary reaches 300 words".

Noun + suffix *-s* was the most prominent plural utterance in English contexts at 3;6 with 31 occurrences (e.g., *cats, dogs, cars*). This is the second stage of PT, the categorial

lexical stage where learners begin to annotate the lexical items they have acquired (in this case, Rina assigned the plural suffix *–s* to the nouns). However, Rina also used the default form *(e.g., cat, dog, car)* interchangeably with noun + suffix *-s* in plural items. Again, such variation patterns are expected: once acquired, the grammatical rule spreads gradually to a greater number of lexical items. The following conversations show Rina's use of suffix -s in marking plurals at 3;6 (R for Rina, M for Mother):

(1). *M* *oh what are these animals? (showing a picture of many elephants)*
R *elephants*
M *em?(the mother couldn't hear as the child was uttering the word under her breath)*
R *elephant*
M *em?*
R *elephants*

(2). *M* *this is a horse can you see the horse?*
R *yes horse and little girl*
(pointing to a girl in the storybook)
M *sorry what did you say?*
R *little girls*
(pointing to the girl in the storybook)

In example (1), when asked about the many elephants, Rina initially produced *elephants*. However, when she repeated the noun, she used the default form *elephant* and then she uttered *elephants* the third time. Noun + suffix *-s* then dropped significantly at 3;9. At that point, she was entering the phrasal stage of PT as she started using indefinite quantifiers + default form (e.g., *many cat*). From 3;9 to 3;10, the use of quantifiers with default forms (e.g., *many cat, two cat*) was most common in Rina's plural expressions with the consequent drop of noun + suffix-s. This finding suggests that when the child started to mark plural with indefinite quantifiers such as *many* and *lots of*, she tended to drop plural suffix *-s* on nouns. So, plurality was marked on only one element in the noun phrase (NP), which avoids redundancy and lessens processing cost. Interestingly, this finding is consistent with Clark and Nikitina's (2009) finding with their English L1 children, who used quantifiers + 'bare-stem forms' (e.g., *two duck, two blanket*) when expressing plurality in English.

The target NP for English quantifiers, i.e., indefinite and numeral quantifiers with suffix *-s*, (e.g., *many cats, two cats*) emerged at 3;8 (three occurrences) and continued at 3;9 (one occurrence) and 3;10 (one occurrence). However, similar to the use of plural *-s*, Rina also tended to use the quantifier + suffix *–s* (e.g., *many cats*) interchangeably with the quantifier + default form (e.g., *many cat*). The following instances indicate Rina's production of quantifier + suffix *-s* in the English context.

(3). *M* *what are those?*
R *many monkey many monkeys*
M *em?*
R *many monkeys (Age 3;8)*

(4). *M* *Do you know these?*
R *many pig*
M *sorry I can't hear you*
R *many pigs (Age 3;9)*

Based on these results, Rina exhibits an acquisition pattern of the plural suffix *-s* in the English context characterized by considerable variation, as observed with most acquirers in both L1 and L2 as well as BFLA. Indeed, Rina's acquisition of plural suffix *-s* in English is similar to the results in monolingual English L1 children's acquisition of suffix *-s* which shows a gradual, sporadic acquisition of suffix *-s*; children first exhibit word-by-word acquisition followed by slow extensions of the conventional plural suffix *-s* to the other nouns (Clark & Nikitina, 2009; Zapf, 2004; Zapf & Smith, 2003). Similar results, which follow the developmental itinerary predicted by Processability Theory, were also found in bilingual development (Itani-Adams, 2013).

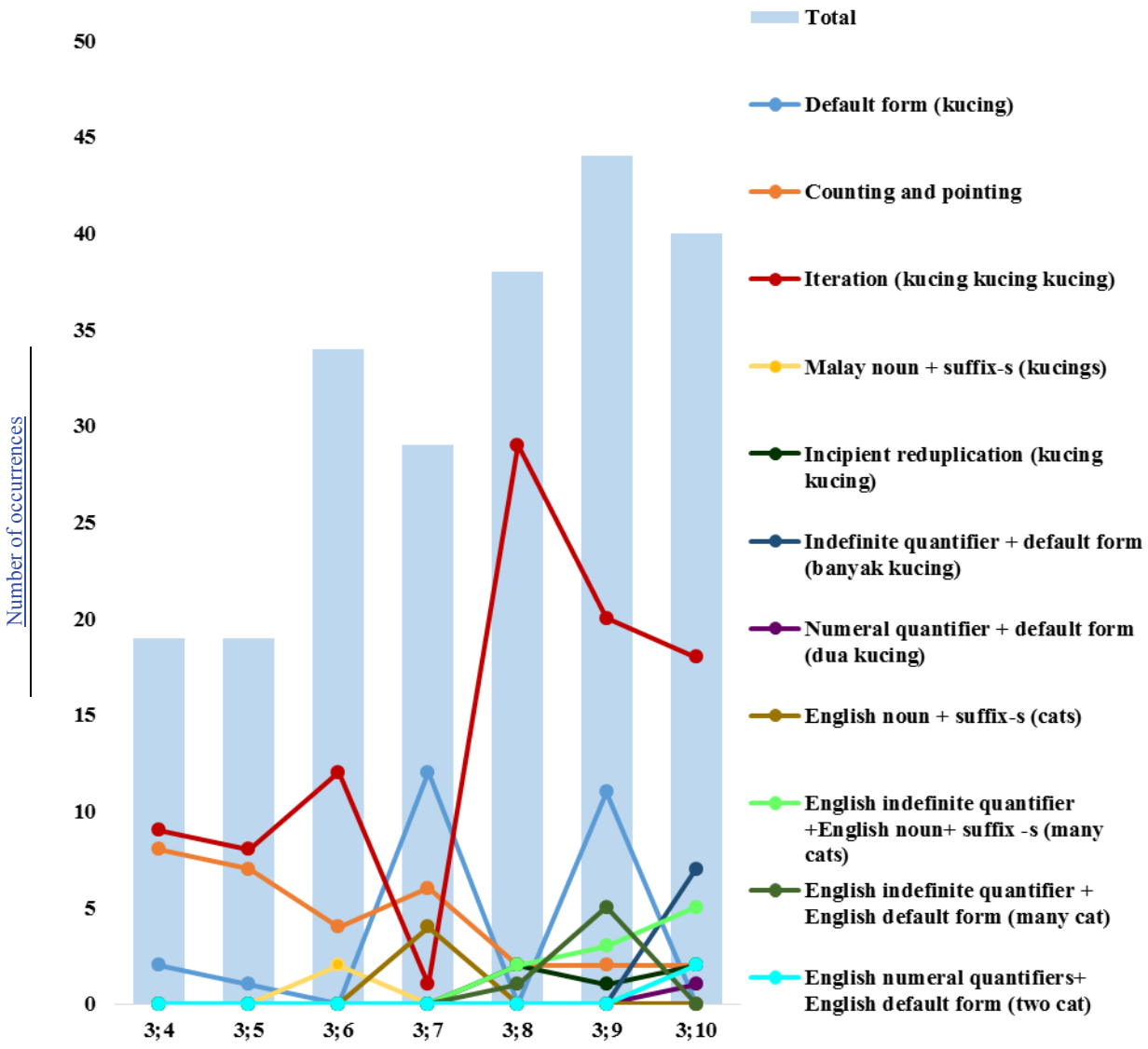

FIGURE 5. Rina's plural development in Malay context from 3; 4 to 3; 10

In the Malay context, from 3;4 to 3;10, iteration (e.g., *kucing kucing kucing kucing* 'cat cat cat cat') appeared to be the preponderant linguistic means which Rina used to pluralise entities in the Malay context. Figure 5 shows that iteration is the most frequent plural expression from 3;4 to 3;10, except for 3;7, when it dropped against an increase in the

use of default form. There was also the use of suffix *-s* attached to Malay nouns in Rina's plural output at 3;6. Rina's use of suffix *-s* with Malay nouns at 3;6 parallels the significant increase of suffix *-s* in English context (refer to Figure 4). The following conversation from the recording illustrates Rina's use of suffix *-s* in the Malay context (R for Rina, F for Father):

(5). *R* *ayah, Rina nak main kucing**s***
Daddy Rina want play cats
"Daddy, I want to play with the cats"
F *kucings tu apa?*
cats those what?
"What are kucings?"
R *tu kucing**s***
those cats
"Those are cats"

Reduplication, the mature grammatical Malay plural, began to appear at age 3;8 (two occurrences), 3;9 (one occurrence) and 3;10 (two occurrences). In this study, as Rina was still learning to reduplicate plural objects, the term *incipient reduplication* is used. She was considered to have acquired reduplication when she no longer pointed to the multiple entities in the picture to mark plural. The suggestion emerging here is that once Rina began using reduplication, the typical grammatical marking of plurality in Malay, she placed a lesser reliance on iconic gestures. Another major difference in Rina's plural systems between the English and the Malay contexts throughout the period of 3;4 to 3;10 lies in her code-switching. It was observed that Rina had the tendency to code-switch to English in the Malay contexts but rarely did she code-switch to Malay in the English contexts when describing plural objects. In fact, most of Rina's utterances in the English contexts were consistently in English except for some lexicalised items from Malay, such as the names of food (e.g., *susu* 'milk', *nasi* 'rice') and kinship terms (e.g., *ayah* 'father', *abang* 'elder brother'). It is possible that while Rina was living in Australia, English became the more dominant language for Rina as she had more lexical resources in the language. Thus, for efficient expressivity, she resorted to using English lexical items. Therefore, although it was found in the corpus that the noun phrases for Malay quantifiers emerged at 3;10, Rina had actually begun using this kind of phrasal construction earlier (at 3;8) with English quantifiers paired with the English default forms (e.g., *many cat, two cat*) in the Malay context.

Having discussed Rina's plural acquisition from 3;4 to 3;10 in the longitudinal study, the discussion now shifts to her plural expressions at age 4;8. At this age, Rina had been living back in Malaysia for four months. In the Malay one-off recording session, which lasted about 45 minutes, Rina produced 24 utterances in plural forms: eleven default forms, twelve reduplicated nouns, and one iterative noun. Table 4 exhibits Rina's plural output in the Malay context at 4;8:

TABLE 4. Rina's plural output at 4;8 in the Malay context

Plural categories	**Number of occurrences**	**Examples from the recording**
Default	11	*arnab 'rabbit'* *itik 'duck'* *ayam 'chicken'*
Reduplication	12	*arnab arnab* 'rabbit rabbit' *itik itik* 'duck duck' *ayam ayam* 'chicken chicken'
Iteration	1	*buku buku buku* 'book book book'

When Rina produced reduplication, she did not point to the objects. There was also one occurrence of iteration (*buku buku buku* 'book book book'). Her numerous productions of reduplication in her expression of plurality at this point in time suggests that she had acquired and consolidated reduplication for grammatical number marking in Malay.

In the one-off English recording session, Rina produced eighteen plural utterances. When pictures of singular objects were shown to her, Rina used the English default forms. For pictures with more than one entity, the most frequent type of plural marking was reduplication *(e.g., monkey monkey)*, followed by indefinite quantifier + default form (e.g., *many monkey*), default form (e.g., *monkey*) and iteration (e.g., *monkey monkey monkey monkey*). Table 5 illustrates Rina's plural categories in the English context at this particular point:

TABLE 5. Rina's plural output at 4;8 in the English context

Plural categories	**Number of occurrences in plural context**	**Examples from the recording**
Reduplication	12	*dog dog* *duck duck* *chicken chicken* *cow cow*
Indefinite quantifier + default form	4	*many chicken* *many ball*
Default form	1	*rabbit*
Iteration	1	*flower flower flower*

Surprisingly, despite acquiring the English plural marking at 3;6 when she was in Australia, at 4;8, Rina used reduplication as her primary strategy to pluralise English nouns. Similar to what happened in the Malay context, when reduplication was used in English, there was no iconic pointing gesture; Rina relied purely on linguistic means to express plurality.

In summary, the longitudinal recordings in Australia (from 3;4 to 3;10) show that Rina developed two different linguistic systems to pluralise Malay and English nouns. Iteration was found to be the primary linguistic means when Rina pluralised in Malay. Iteration is then the stepping stone before the child acquired reduplication, the grammatical marking of plurality in Malay. At 4;8, it can be seen that she had fully acquired reduplication when expressing plurals in the Malay context.

As for the English plural development, the marking of suffix -s (e.g*., cats, dogs*) on nouns was Rina's main linguistic expression to express plural in English from age 3;6 to 3;8. From 3;9 to 3;10, she developed the English NP definite and indefinite quantifiers (e.g., *two cats, many cats*) which she used interchangeably with the default forms (e.g., *two cat, many cat*). The use of quantifiers with the default form is a developmental step before Rina acquired plural agreement in the phrase unifying quantifier and noun (the phrasal stage in PT). At 4;8, however, Rina used reduplication (e.g., *cat cat)* to express plurality in English. Rina's plural development in both languages follows the sequence proposed by PT. Rina acquired the plural marking in each of the two languages in the following sequence; word level (e.g., *kucing, cat*) followed by the lexical category level (e.g., *kucing kucing*, reduplication in Malay and *cats*, suffix *-s* in English) then phrasal level (e.g., *banyak kucing, many cats*). This finding lends support to PT's universal applicability to different types of language acquisition (in this case, BFLA) as well as across languages of different typologies (Pienemann, Keßler, & Itani-Adams, 2011). Having discussed Rina's plural output in Malay and English in the longitudinal study and the one-off elicitation sessions after returning to Malaysia, the following discussion describes the relationship between Rina's linguistic

environment and her plural development to respond to the second research question posed earlier:

(2) Does linguistic environment play an important role in the development and production of plural expressions in the child?

When Rina was living in Australia, in a predominant AusE environment, some of the plural structures she used in the English context were also used in the Malay context; for example, she occasionally used the plural suffix *-s* and paired it with Malay nouns (e.g., *kucings* cats;). Also, it was observed that she tended to switch to English nouns frequently when asked to produce plurals in Malay context.

However, at 4;8, after having lived in Malaysia for four months, her numerous productions of reduplication to mark plurality in the elicitation sessions suggests that she had fully acquired the grammatical structure. What is interesting about Rina's performance with plural at 4;8 is that she used reduplication to mark plurals in the English context as well. It is possible that the automatization of plurals in Malay had influenced her performance in English at that time due to the dominant Malay input she received from 4;4 to 4;8, both from her extended family at home and from the extra-domestic environment. This sort of transfer was possible because the child was at a stage where she could process those plural structures in both languages. This is in line with the Developmentally Moderated Transfer Hypothesis (Pienemann et al., 2005) according to which, essentially, learners can only transfer what they can process. This finding strongly suggests that linguistic environment is an important variable in the child's bilingual development and performance.

CONCLUSION

This article presents a longitudinal investigation and a one-off elicitation session of the language development in a Malay-English bilingual child. Hence, the obvious limitation of this study is the lack of generalisability of the findings as it is based solely on the experiences and performance of one bilingual informant. However, research in general is cumulative and the increasing number of case studies provides the opportunity to compare and verify the findings with one another (Qi, 2011; Qi, Di Biase & Campbell 2006). Indeed, most classic studies that have advanced the understanding of bilingualism have been case studies of individuals in increasingly different linguistic constellations (De Houwer, 1990; Leopold, 1939; Ronjat, 1913, among others). This in itself increases predictability and allows for a moderation regarding the claim of the lack of generalisability. Further limitations are related to the boundaries created by the study itself as the focus is solely on the development of plural expressions and its marking in two languages. The child certainly developed other systems in parallel as described in Mohamed Salleh (2017).

The findings of this study indicate that the predominant linguistic environment in which the child grows and develops plays an important role in shaping the child's language production. This issue needs to be further studied as language environment, with very few exceptions in the studies of bilingual development, is typically ignored or described as only playing a background (and negligible) role in bilingual children's linguistic development. The findings obtained here shed some light in our understanding of the acquisitional processes of a child raised in two typologically distinct languages and how different environments influence the child's language development.

In conclusion, this study offers a new perspective on the acquisition of plural marking in a Malay-English bilingual child. The specific features of plurality in Malay and English and how their expression develops in the bilingual child are crucial to extending the empirical

bilingual database. It is hoped that this study will lead to further research in Malay-English bilingual acquisition.

REFERENCES

Ahmad, Z. (2001). Isu Morfologi Bahasa Melayu: Kata Dasar Yang Tidak Boleh Digandaseparakan. [Morphological Issues in Malay: Root Words That Cannot Be Partially Reduplicated]. *Jurnal Bahasa. 1*(1), 1-18.

Barner, D., Lui, T. & Zapf, J. (2012). Is Two a Plural Marker in Early Child Language? *Dev Psychol. 48*(1), 10-17.

Brown, R. (1973). *A First Language: the Early Stages.* Cambridge: Harvard University Press.

Clark, E. V. & Nikitina, T. V. (2009). One Vs. More Than One: Antecedents to Plural Marking in Early Language Acquisition. *Linguistics. 47*(1).

De Houwer, A. (1990). *The Acquisition of Two Languages From Birth: A Case Study.* Cambridge: Cambridge University Press.

De Houwer, A. (2009). *Bilingual First Language Acquisition.* Bristol, UK: Multilingual Matters.

Deuchar, M. & Quay, S. (2000). *Bilingual Acquisition: Theoretical Implications of a Case Study.* New York: Oxford University Press.

Di Biase, B. & Bettoni, C. (2015). The development of Italian as a second language. In C. Bettoni & B. Di Biase (Eds.), *Grammatical Development in Second Languages: Exploring the Boundaries of Processability Theory.* (pp. 117-148). Italy: Eurosla.

Di Biase, B., Kawaguchi, S. & Yamaguchi, Y. (2015). The development of English as a second language *Grammatical Development in Second Languages:exploring the Boundaries of Processability Theory* (pp. 85-116). Italy: EuroSLA.

Dopke, S. (1992). *One Parent-one Language: an Interactional Approach*. Amsterdam: John Benjamins.

Dopke, S. (1998). Competing Language Structures: the Acquisition of Verb Placement by Bilingual German-English Children. *Journal of Child Language. 25*, 555-584.

Ettlinger, Z. & Zapf, J. (2011). The role of phonology in children's acquisition of the plural. *Lang Acquis. 18*, 294-313.

Fantini, A. (1985). *Language Acquisition of a Bilingual Child: A Sociolinguistic Perspective (to age ten)*. Clevedon: Multilingual Matters.

Genesee, F. (2015). Myths About Early Childhood Bilingualism. *Canadian Psychology. 56*(1), 6-15.

Goddard, C. (2005). *The Languages of East and Southeast Asia*. Oxford: Oxford University Press.

Hakansson, G. & Waters, B. (2016). *Comprehension and production in four languages: a case study of a quadrilingual child*. Paper presented at the Pacific Second Language Research Forum (PASCLRF 2016), Chuo University, Tokyo, Japan.

Hardini, I., Kawaguchi, S., Reid, C. & Di Biase, B. (2019). Early Lexical and Grammatical Development of English in Indonesian Kindergarten Children. *Asiatic. 13*(1), 76-102.

Hashim, A. (2014). English and the Linguistic Ecology of Malaysia. *World Englishes. 33*(4), 458-471.

Hassan, A. (2006). *Morfologi: Siri Pengajaran Dan Pembelajaran Bahasa Melayu*. Kuala Lumpur: PTS.

Hollander, M. A., Gelman, S. A. & star, J. (2002). Children's Interpretation of Generic Noun Phrases. *Dev Psychol. 38*(6), 883-894.

Itani-Adams, Y. (2013). *One Child and Two Languages: Acquisition of Japanese and English as Bilingual First Languages.* Munchen: Lincolm.

Kawaguchi, S. (2015). The development of Japanese as a second language. In C. Bettoni & B. D. Biase (Eds.), *Grammatical Development in Second Languages: Exploring the Boundaries of Processability Theory.* (pp. 149-172). Italy: Eurosla.

Kroeger, P. R. (2005). *Analyzing Grammar: An Introduction.* New York: Cambridge University Press.

Kuang, C. H. (2012). *Linguistic Journey of a Bilingual Child*. Kuala Lumpur: University of Malaya Press.

Lanza, E. (2004). *Language Mixing in Infant Bilingualism: a Sociolinguistic Perspective*. New York: Oxford University Press.

Larsen-Freeman, D. & Long, M. H. (1991). *An Introduction to Second Language Acquisition Research.* New York: Longman.

Leopold, W. F. (1939). *Speech Development of a Bilingual Child: A Linguist's Record* (Vol. i: Vocabulary growth in the first two years.). Evanston, Ill: Northwestern University Press.

Leopold, W. F. (1947). *Speech Development of a Bilingual Child: a Linguist's Record* (Vol. ii: Sound learning in the first two years.). Evanston, Ill: Northwestern University.

Leopold, W. F. (1949a). *Speech Development of a Bilingual Child: a Linguist's Record* (Vol. iii: Grammar and general problems.). Evanston, Ill.: Northwestern University Press.

Leopold, W. F. (1949b). *Speech Development of a Bilingual Child: a Linguist's Record* (Vol. iv: Diary from age 2.). Evanston, Ill.: Northwestern University Press.

Meisel, J. M. (1989). Early differentiation of languages in bilingual children. In K. Hylstentham & L. Obler (Eds.), *Bilingualism Across the Lifespan: Aspects of Acquisition, Maturity and Loss* (pp. 13-40). Cambridge: Cambridge University Press.

Mohamed Salleh, R. T. A. (2017). *Bilingual first language acquisition in Malay and English: A morphological and suprasegmental study in the development of plural expressions in a bilingual child.* (Ph.D), Western Sydney University, Australia. Retrieved from http://210.48.222.80/proxy.pac/docview/2034359984?accountid=44024

Mohamed Salleh, R. T. A., Kawaguchi, S., Jones, C. & Biase, B. D. (2016). The Development of Plural Expressions in a Malay-english Bilingual Child. *Asiatic. 10*(2), 60-81.

Nik Safiah Karim, Onn, F. M. & Haji Musa, H. (1993). *Tatabahasa Dewan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Padilla, A. M. & Liebman, E. (1975). Language Acquisition in the Bilingual Child. *Bilingual Review. 2*(1-2), 34-55.

Paradis, J. & Genesee, F. (1996). Syntactic Acquisition in Bilingual Children: Autonomous or Interdependent? *Studies in Second Language Acquisition. 18*, 1-25.

Pienemann, M. (1998). *Language Processing and Second Language Development: Processability Theory.* Philadelphia: John Benjamins Publishing Company.

Pienemann, M., Di Biase, B., Kawaguchi, S. & Hakansson, G. (2005). Processing constraint on L1 transfer. In J. F. Kroll & A. M. B. De Groot (Eds.), *Handbook of Bilingualism: Psychological Approaches* (pp. 128-153). Oxford: Oxford UP.

Pienemann, M., Keßler, J.-U. & Itani-Adams, Y. (2011). Comparing Levels of Processability Across Languages. *International Journal of Bilingualism. 15*(2), 128-146.

Qi, R. (2011). *The Bilingual Acquisition of English and Mandarin: Chinese children in Australia*. Amherst, New York: Cambria Press.

Qi, R., Di Biase, B. & Campbell, S. (2006). The transition from nominal to pronominal person reference in the early language of a Mandarin-English bilingual child. *International Journal of Bilingualism. 10*(3), 301-329.

Romaine, S. (1995). *Bilingualism*. Oxford, UK: Blackwell Publishing.

Ronjat, J. (1913). *Le développement du langage observé chez un enfant bilingue.* Paris: Champion.

Salehuddin, K. (2012). The Acquisition of English Negative Constructions by a Malay Bilingual Child. *3L: The Southeast Asian Journal of English Language Studies. 18*(4), 181-191.

Salehuddin, K. & Winskel, H. (2009). An Investigation Into Malay Numeral Classifier Acquisition Through an Elicited Production Task. *First Language. 29*(3), 289-311. doi:10.1177/0142723709103187

Sansavini, A., Guarini, A., Alessandroni, R., Faldella, G., Giovanelli, G. & Salvioli, G. (2006). Early Relations Between Lexical and Grammatical Development in Very Immature Italian Preterms. *Journal of Child Language. 33*, 199-216.

Saunders, G. (1982). *Bilingual Children: Guidance for the Family*. Clevedon: Multilingual Matters.

Saunders, G. (1988). *Bilingual Children: From Birth to Teen* (2nd ed.). Clevedon: Multilingual Matters.

Sew, J. W. (2007). *Reduplicating Nouns and Verbs in Malay: a Conceptual Analysis*. Kuala Lumpur: University of Malaya press.

Sloetjes, H. & Wittenburg, P. (2008). ELAN (Version 4.9.3). Nijmegen, The Netherlands. Retrieved from http://tla.mpi.nl/tools/tla-tools/elan/

Tadmor, U. (2009). Malay-Indonesian. In B. Comrie (Ed.), *The World's Major Languages* (2nd ed.) (pp. 791-819). London: Routledge.

Taeschner, T. (1983). *The Sun is Feminine: a Study on Language Acquisition in Bilingual Children.* Berlin: Springer.

Vihman, M. M. (1985). Language Differentiation by the Bilingual Infant. *Journal of Child Language. 12*, 297-324.

Volterra, V. & Taeschner, T. (1978). The Acquisition and Development of Language by Bilingual Children. *Journal of Child Language. 5*, 311-326.

Yip, V. & Matthews, S. (2006). Assessing Language Dominance in Bilingual Acquisition: A Case for Mean Length Utterance Differentials. *Language Assessment Quarterly. 3*(2), 97-116.

Yip, V. & Matthews, S. (2007). *The Bilingual Child: Early Development and Language Contact.* Cambridge: Cambridge University Press.

Zapf, J. (2004). *Frequency in the input and children's mastery of the regular English plural.* Paper presented at the Annual Boston University Conference on Language Development 28, Somerville.

Zapf, J. & Smith, L. B. (2003). *The protracted course of the acquisition of the plural.* Paper presented at the Boston University Conference on Language Development 27, Somerville, Ma.

Zhu, H. & Li Wei. (2005). Bi- and multi-lingual acquisition. In M. Ball (Ed.), *Handbook of Clinical Sociolinguistics*. Oxford: Blackwell.

ABOUT THE AUTHORS

Dr. Rabiah Tul Adawiyah Mohamed Salleh is Assistant Professor at the Department of English Language and Literature, International Islamic University Malaysia (IIUM) where she teaches Psycholinguistics. Her main research interest are Developmental Psycholinguistics and Processability Theory.

Associate Professor Satomi Kawaguchi is a member of the Bilingualism Research Lab at Western Sydney University (WSU), School of Humanities and Communication Arts, where she teaches Second Language Acquisition (SLA) and Japanese. She has published extensively on language acquisition and Processability Theory.

Associate Professor Bruno Di Biase is a supervisor of PhD students at the School of Humanities and Communication Arts and the Bilingualism Research Lab at WSU. He is an editor of the Benjamins PALART series. His research interests and publications are in the areas of Bilingualism and SLA with a focus on Processability Theory.

eISSN: 2550-2131
ISSN: 1675-8021