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Notes:

1. The discussion of language mixing is restricted here to distributional analysis of mixed vs non-mixed utterances; linguistic analysis of the data will be presented in a separate article.
2. Here we are referring to productive awareness; Arsham's receptive awareness, like other normal children, occurred much earlier in the life of the child when he started reacting differently to the sounds of English and Persian.
3. This is also a case of 'self-repair'.
4. This shows not only the child's bilingual awareness, but also his pragmatic awareness.

Findings and Conclusion

The major findings of this study are:

1. Contrary to the claims made by the proponents of the 'one-system' hypothesis, language mixing cannot indicate the bilingual child's lack of ability to differentiate the two language systems.
2. Spontaneous translations employed by the subject show that bilingual awareness and language differentiation is possible at an early age (17-24 months).
3. Bilingual infants can code-switch even before their second birthday and this is an evidence of their metalinguistic awareness and language differentiation.

Based on the above findings, it can be concluded that with a strict bilingual policy it is possible for the bilingual child to develop awareness of the two linguistic systems from an early age, earlier than what thus far has been assumed to be the beginning of language differentiation. In general, the findings support De Houwer's (1990) claim that in BFLA each language is handled as a system in its own right. This claim here is, of course, restricted to lexical development from 16 to 24 months of age. The results of morphosyntactic development will be dealt with in a separate article.

It is hoped that the findings of the present study will shed light on the two unresolved questions in BFLA namely (a) whether bilingual children in general develop their two languages independently from each other or not; and (b) the degree of influence of a bilingual child's type of language exposure on his or her linguistic development.

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	Arsham started with [bala] 'up' first, but since he did not know or could not remember the Persian word for 'down' he switched to English and said 'down'.
8. 23 beSin/sit down	F: Arsham and I were playing with the blocks. Then, I got up to go to the bathroom. He pulled my trousers and said [beSin] 'sit down'. After I refused to do so he switched to English knowing that I would interact with him only in English. Then, to reinforce his proper linguistic behavior I sat for a while.(4)

Our data also supports the claim made by Levy (1985) that the bilingual child regards the lexicon as a representational system and accepts the existence of more that one speech system for one world of objects. The two systems which he possesses are treated as mutually equivalent, therefore translatable. Utterances in Tables 2 and 3 show that Arsham, like Levy's child, not only had two words related to one meaning (e.g. 'bath' and/hamum/), but also conceived of them as mutually translatable.

Arsham clearly demonstrated his bilingual awareness through spontaneous translation and code-switching. He proved that he could operate with equivalent systems and move from one to the other either spontaneously, as in the case of translation, or prompted as in the case of code-switching.

Table 3
Code-Switching

No Age Codes	Context
1. 19 [hæmum]/bath	Arsham followed his father to the bathroom saying 'daddy, daddy'. Father replied: No, darling, daddy is going to the take a bath. Then Arsham translated 'bath' into Farsi and said [hæmum] with a rising pitch meaning "Are you going to take a bath?'. The father repeated the word in English to sanction the Farsi translation. Then Arshan switched to English and said 'bath'.
2. 19 [un]/cake	Arsham pointed to a piece of cake on the table and said [un] 'that'. Then, his father trying to reinforce the English word, said: 'Cake? You want some Cake?' Then, Arsham replied 'cake'.
3. 19 [yiŠ]/wee-wee	Arsham sometimes uses [yiŠ] when he wants to go to the bathroom, but when his father says 'what?', pretending that he hadn't understood, Arsham switches to English.
4. 20 [baz]/take off	F: Arsham gave me his beaker and asked me to take the lid off by saying the Farsi word [baz]. I deliberately pretended that I hadn't understood; then, he switched to English and said 'off' meaning 'take the lid off'.
5. 20 [yiŠ]/juice	F: I was in the kitchen. Arsham came in and said [YiŠ] 'wee-wee' while pointing to his beaker. I realized that he had mixed [YiŠ] with 'juice'. Therefore, I deliberately picked him up, took him towards the bathroom and said: Ok, let's go to the bathroom". Then, he realized that he had made a mistake, so he corrected himself by saying 'juice' for 'orange juice'.(3)
6. 20 dummy/[mæS]	F: I had bought Arsham a new dummy (soother). When I went back home I showed it to him and said: "I've bought you a new dummy; come and get it". Arsham, happy and smiling, first said 'dummy', then after a pause switched to Farsi and said [mæš].
7. 22 [bala]/down	Arsham's mother asked him, in Persian, where the birds were.

The results show that our subjcet demonstrated bilingual awareness from a very early age (1;5).(2) In fact, Arsham acquired the ability to differentiate the two language systems quite early compared to some other bilingual children cited in the literature. For instance, Leopold (1949b:175) states that his daughters Hildegard and Karla were conscious of using two different systems early in the third year. Hoffmann (1991) says that her daughter showed signs of distinguishing the two systems around her second birthday. Examples of Kessler's (1984) subject indicate that she was aware of two distinct codes at 2;3. Also separation of languages in the case of Fantini's (1985) subject occurred at age 3. Early differentiation of the two languages by Arsham as a sign of bilingual awareness can be attributed to the rigidity of the one-language- one-parent policy adopted.

As Swain (1972) suggests, 'spontaneous translation' reflects the child's interpretation of the situation. In the case of our subject, since he was made to believe, through the strict bilingaul policy, that his father spoke only English and his mother only Persian, Arsham provided the spontaneous translations in order to help his interlocutor(s) understand his messages.

The second evidence of bilingual awareness, as said earlier, is ***code-switching***. Not many examples of code-switching were found in the data. This is quite understandable bearing in mind that code-switching is mostly a feature of adult bilingualism. Nevertheless, from the few examples listed in Table 3 it can be observed that the child is quite aware of the two language systems and does code-switching consciously and deliberately in order to accommodate and assimilate with a particular interlocutor. This finding supports Lanza's (1992) claim that young bilingual children ***can*** code switch.

3.	17	Now look what you've done/[didi]	Arsham dropped a plate of rice on the floor. Father, said: "Now look what you've done!" Then, Arsham provided the translation equivalent of the utterance in Persian by saying [didi].
4.	17	sleepy/[lala]	F: "Mitra, Arsham is sleepy; why don't you put him to bed. Arsham heard the English word sleepy and provided the Farsi equivalent.
5.	18	windy/[bab]	F: (Talking to his wife) "It's windy outside." Arsham heard the word and translated it into Farsi using his pronunciation of the word [bab] for [bad].
6.	18	asleep/[lala]	F: Avishan is asleep, Arsham; don't make so much noise! Then Arsham provided the equivalent [lala].
7.	19	[dað]/hot	Arsham was being given a wash in the bathroom. He complained about the water being hot saying the word first in Farsi and then in English, perhaps to reinforce his complaint.
8.	20	[lala]/sleep	Our English-speaking guest mentioned the word 'sleep' in her conversation and Arsham provided the Persian equivalent, presumably to show off his linguistic awareness.
9.	21	[hæmum]/bath	He pointed to his sister who had just taken a bath and used the word in both languages.
10.	22	daddy/[baba]	He repeated daddy/baba in a sequence as a language practie.
11.	22	[borow]/go	He got angry with his sister and said 'go' in both languages for the sake of emphasis as he wanted his sister to leave the room.
12.	23	[nun]/bread	He repeated these two wrods, practicing his two languages.
13.	23	[7æmu]/uncle(as in items 10 and 12).	
14.	24	ball/[tup]	Arsham repeated these equivalents, practicing them in both languages.
15.	24	[birun]/out	using 'out' in both languages for emphasis.

(three plus) when they began their investigation, continued to use mixed utterances despite the fact that he demonstrated metalinguistic awareness through spontaneous translation. Therefore, language mixing cannot be accepted as evidence for the child's lack of ability to differentiate the two language systems. It can be argued that the bilingual child simply uses the two codes at his disposal to communicate his meanings. As Redlinger and Park (1980) assert, the bilingual child is a communicator who will use all means available. This communicative strategy (i.e. language mixing) has also been observed in the speech of adults in some bilingual communities (cf Bergman, 1979; Lindholm and Padilla, 1978 a, b).

2. *Bilingual awareness through spontaneous translation and code-switching*

The second question to be empirically tested here is 'bilingual awareness'. 'Spontaneous translation' and 'code-switching' are taken as evidence for bilingual or metalinguistic awarencess. As said earlier, Swain and Wesche (1975) contend that *'spontaneous translation'* indicates the child's awareness of the distinction between his two languages. Therefore, all cases of spontaneous translation for the period under investigation were identified and extracted from the data. These are given in Table 2 below.

Table 2
Cases of Spontaneous Translation

No	Age	Tranaslation Equivalents	Context
1.	17	sleep/[lala]	Arsham woke up in the morning; he was still in his cot. Father said: "Did you sleep well, Arsham?" Then, Arsham answered [lala] providing the translation equivalent of the word 'sleep'.
2.	17	bath/[hxmum]	F: M. (mother's name), will you please give Arsham a bath? Having heard this, Arsham first repeated the English word 'bath', in his pronunciation [bæs], then he started rubbing his hair while saying the word in Persian ([hæmum]).

The low frequency of mixed utterances in Arsham's speech seems to be due to the adherence of the researcher to the strict bilingual policy outlined above, something which has not been emphasized in some other bilingual studies. For instance, until Hildegard was nearly three years old (2;11), Leopold did not attempt to insist on her using German with her father or English with her mother. Quite on the contrary, the present researcher insisted on language separation according to the interlocutors right from the beginning and even sanctioned mixed utterances when addressed by his son using such utterances (for some examples of this strategy, see Table 3). This is believed to have facilitated the bilingual differentiation ability of the subject. Furthermore, this finding points to the significance of input and interaction strategies. As Hoffmann (1991) asserts, there seems to be general agreement amongst researchers that children reaised on the one-parent-one-language rule mix less than those who acquire their languages in mixed contexts. In fact, a major criticism directed towards the proponents of the one-system hypothesis is that they have not taken the role of input and interaction strategies into due consideration (see, for example, Genesee, 1989).

Furthermore, as said earlier, some of the mixed utterances were the result of language dominance (further exposure to English). As Lanza (1997) asserts, such cases of mixing cannot be interpreted as evidence for a single underlying undifferentiated system (for more on 'dominance' see Petersen, 1988; Hoffimann, 1991; Lanza, 1993 and 1997). In any case, the notion of unitary language system connot explain Arsham's code-mixing as he often had the equivalents for items that were mixed. This goes against Volterra and Taschner's (1978) claim that children at this stage do not use equivalents or synonyms.

'Mixing', as an evidence in favor of the 'one-system' hypothesis, can also be attacked from a different angle. Leopold claimed that Hildegard at the age of 2;8 was "clearly aware of dealing with two languages" (Leopold, 1949b:83). However, as Lanza (1997:26) puts it, despite this postulated awareness, Leopold indicates that his daughter continued to mix the two languages. Similarly, Swain and Wesche's subject, who was much older than Hildegard

utterances were compared for the period of investigation (16 to 24 months of age). Results show that only a small proportion of multiword utterances was mixed (%13) and the rest were language specific (see Table 1 below). A closer analysis of the data reveals that in many of the mixed utterances Arsham produced, he knew the elements in both languages; however, having more exposure to his dominant language (English) he preferred to use the English counterpart. For example, he knew both 'mommy' and [maman], but since his exposure to [maman] was rather limited as there were no other Persian-speaking children in the neighborhood to hear the word from, he mixed 'mommy' with some Persian lexical items to communicate with his mother. Since 'mommy' had the force of a proper name, it should probably not be considered as mixing. Thus, if we exclude such utterances from consideration the percentage of the mixed utterances will drop to %11. Therefore, considering the low frequency of mixed utterances, 'language mixing' connot be accepted as a convincing evidence in support of the 'one-system' hypothesis. This is in line with Levy's (1985) finding that 'since mixed utterances never exceeded 15 percent of the total sample it can be concluded that language mixing was not a frequent phenomenon in Yair's (Levy's subject) speech'.

Table 1

Proportion of mixed and non-mixed multiword utterances

bilingual infant ***before his second birthday***; (b) it provides distributional data for mixed as well as non-mixed utterances; and (c) it gives examples of 'code-switchig' before the second birthday of the child. The study also provides previously unreported data on bilingual first language acquisition in Persian and English. More specifically, the study reports on the simultaneous acquisition of two unrelated languages namely English and Persian. Although English and Persian belong to the same language family (the Indo-European family) there is not much resemblance between them lexico-semantically or morpho-syntactically.

Operational Definitions

1. ***Lexical mixing*** is defined here as utterances in which words from both languages are used.
2. ***Spontaneous trsnslation*** is defined here as translation without any prompting of something the child had just said (as opposed to elicited translations which are made as a result of prompting by someone else).
3. ***Multiword utterances***: Utterances consisting of two or more words.
4. ***Code switching***: Abrupt shifting from one code to another within a speech context.

Results and Discussion

The two issues investigated in the present study are 'language mixing' and 'bilingual awarencess' in the form of 'spontaneous translation' and 'code-switching'. These two issues are related to the two competing theories of BFLA namely the 'one-system hypothesis' and the 'two-system theory'. The results of the data analyses on 'language mixing' and 'bilingual awareness' are presented below.

I. Language Mixing

The frequency of occrurrence of the mixed and non-mixed multi-word

words produced at 12 months of age. In these files, each entry consisted of the child's utterance, the adult equivalent, details of the context and participants in the speech event in which the utterance was produced. In the case of Persian words, English equivalents were provided. It needs to be pointed out that towards the end of the second year (when Arsham was 21 and 22 months old) less data were collected since the researcher was busy with the final preparation of his Ph.D. dissertation and could not spend much time with his son.

Procedure

For the purposes of the present paper, the data consist of multi-word utterances only. That is, all multi-word utterances produced by the subject from 16 to 24 months of age were extracted from a larger corpus of longitudinal data. Then, mixed and non-mixed multiword utterances were separated. Next, all cases of spontaneous translation and code-switching were extracted from the data for further analysis. It should be pointed out that this study is restricted to the analysis of lexical items (multiwords) only; Arsham's morpho-syntactic development will be dealt with in a separate article.

Purpose of the Study and Research Questions

The main purpose of the study was to find out whether Arsham developed a one or two linguistic systems before the age of two. The specific research questions dealt with in this study are:

1. What is the proportion of mixed and non-mixed multiword utterances between 16 to 24 months of age?
2. What is the nature and frequency of 'spontaneous translations' and 'code-switching' in the speech of the child before two years of age?

A peripheral, but important, question is whether the pattern of bilingual policy will have any impact on the development of one versus two linguistic systems?

The significance of the present study lies in the fact that (a) it investigates, for the first time, the use of 'spontaneous translation' in the speech of a

Data Collection and Analysis

Three methods were employed for collecting the data: diary records, audio-recording, and experimental technique of checking the comprehension and production abilities of the subject. The phonetic transcriptions of utterances were included in the diary on site. That is, the investigator being bilingual in persian and English and a trained phonetician transcribed Arsham's utterances in the two languages on site. Also details of the context in which such utterances were Produced were added. However, when the investigator was not present his wife was asked to tape-record Arsham's utterances. The audio-recorded material was transcribed subsequently by the researcher. For testing Arsham's receptive knowledge, the researcher named different objects (mostly his toys and pictures in his books) and asked him either to point to them or fetch the objects, e.g. "Arsham, bring me your tortoise" (his toy), or "Where's the drum?" (in his book). In the majority of cases, he responded appropriately. In order to test Arsham's active vocabulary, the researcher asked him to name objects or pictures: "What's this, Arsham?". The researcher's wife, a native speaker of Persian, was asked to use the same strategy to test Arsham's receptive and productive knowledge of Persian. It should be pointed out that although comprehension was checked occasionally, this study is based on productive data only.

The linguistic record was kept chronologically; however, for the ease of illustration the data will be presented here monthly following Bennett-Kastor's (1988:59) advice who recommends monthly presentation as opposed to methods in which age of the child is reported by specifying days and weeks, which can become confusing at times.

Data collection began when Arsham was 8 months old; however, Arshm's utterances during the 8th month are only considered significant from a phonological perspective. His first comprehensible words were produced when he was 9 months old. After transcribing Arsham's utterances they were entered into computer files by language and month, e. g. 12E for English

Verhoeven, 1987). Code-switching in the speech of infant bilinguals has hardly been touched upon, with the exception of Lanza (1992). Lanz's subject at the onset of her investigation was 2 years old and she was 2;7 at the end of the study. The present study, however, provides examples of code-switching in the speech of a bilingual infant even before his second birthday (see the results).

In this brief review of the two opposing views of BFLA, an attempt was made to highlight the significance of 'language mixing' and 'bilingual awareness'. The first of these two issues has been cited as evidence in the arguments in favor of the 'one-system hypothesis', and the second as evidence of the 'two-system hypothesis'. Therefore, it is the objective of the present study to test these two issues in the light of empirical data.

The Case Study

The Subject

The subject of this study was the researcher's second child, Arsham. Arsham was born in Great Britain where his father was working on his Ph.D. research. Sine the longitudinal study was intended to focus on 'simultaneous bilingualism', Arsham was exposed to Persian and English right from birth. A bilingual policy was established according to which the mother of the child would only speak to him in Persian and the father only in English. The same policy had been successfully used with Arsham's older sister, who was seven years old when Arsham was born. She was asked to speak to her brother exclusively in English since she could not offer a good phonological model in Persian, being under the influence of her then dominant language, English. The bilingual policy was strictly followed cooperatively by all concerned, to the extent that Arsham was soon able to make the one-parent-one-language association. It needs to be added that both parents were bilingual in English and Persian; however, in the presence of their two children they spoke to each other only in the assigned languages in order to reinforce the bilingual policy.

and Wilkuinson, 1982; Smith and Tager-Flusberg, 1982) and bilingual children (e.g. Ianco-Warrall, 1972; Ben-Zee, 1977; Bialystok, 1986, 1991; Hakuta, 1986; C. Baker, 1993) has concentrated on the analytic abilities of older children (approximately 4 to 8 years of age). Studies on metalinguistic awareness of infant bilinguals in the form of inexplicit reflection of language are, indeed, scarce (Swain and Wesche, 1975; Hoffmann, 1985; Levy , 1985; Clyne, 1987; Youssef, 1991 a,b; and Lanza, 1997). Clark (1978) and Slobin (1978) also provide important observational data revealing that even two- and three-year-old children are capable of monitoring their speech. Tunmer and Myhill (1984:169) contend that one of the positive effects that bilingualism may produce is an increase in metalinguistic awareness which, in turn, may have a positive impact on academic and cognitive functioning of fully fluent bilinguals.

An important and obvious manifestation of bilingaul awareness is ***spontaneous translation***. As distinguished from 'elicited translations', spontaneous translations are made without any pormpting. Unlike 'language mixing', which has been heavily researched in recent years, 'spontaneous translation' in the speech of young bilingual children has not been investigated extensively. The first empirical study of spontaneous translation of a three-year old bilingual child was conducted by Swain and Wesche (1975). Swain and Wesche contend that 'spontaneous translation' indicates the child's awareness of the distinction between his two languages. Hoffmann (1991:84) also states that spontaneous translation is a signal that the child can give to indicate that he is aware of using two codes.

Another sign of bilingual awareness is ***code-switching***, i.e. the alternation of the two languages available to the bilingual speaker. Most studies on code-switching have investigated the use of this linguistic or rather sociolinguistic phenomenon in the speech of adult bilinguals (Poplack, 1981; Grosjean, 1982; Gumperz, 1982; Heller, 1988; Romaine, 1989; Schatz, 1989). A few studies have focused on code-switching used by bilingual children three years of age and older (McClure, 1981; Fantini, 1985; Boeschoten and

based on orthographical rather than phonetic form and it contains scarcely any indication of contextual features. Genesee (1989), in his critique of the one-system hypothesis, points out that the monolingual child's use of overextensions and underextensions parallels the bilingual child's use of vocabulary items from either language regardless of linguistic context.

The findings of the present study (see the results) also go against Volterra and Taeschner's claim that in Stage I the child will have a word in one language but lacks the equivalent or synonym in the other and hence words from both languages frequently cooccur in two- to three-word constructions (i.e. mixed utterances). Other recent studies (Mikes, 1990; Quay, 1993) have also indicated that bilingual children may indeed have a dual lexicon from the start.

The Two-System Hypothesis

According to this view, bilingual children, from a very early age, are able to differentiate their linguistic systems. This conviction was voiced by Padilla and Liebman (1975), and it found support in Bergman (1976), who postulated that in cases of bilingual asquisition each language develops independently of the other.

Padilla and Lindholm (1984) also believe that from a very early age onwards, bilingual children are able to differentiate their two linguistic systems. They further write that the view that a bilingual child will grow up to speak "a hybrid. mixture of the two languages [...] must be rejected" (p. 34). Similarly, Padilla and Liebman (1975) strongly oppose the view that in the earliest stages of acquisition bilingual children do not differentiate their languages into two linguistic systems.

Scholars have ascribed to the onset of language awareness, or more specifically ***bilingual awareness***, as an impetus to the language differentation process. Language awareness has been defined as the 'ability to think about and reflect upon the nature and functions of language' (Pratt and Grieve, 1984:2). Experimental work involving the testing of metalinguistic awareness of both monolingual children (e.g. Papandropoulo and Sinclair, 1974; Saywitz

The empirical question De Houwer raises in this regard is whether Hildegard ever used two- or three-word utterances contaninig only lexical items from one language. The answer to this question is positive: throughout his third volume, Leopold gives many examples of fully English two- and three-word utterances. It is not clear, as De Houwer states, why Leopold chose to focus on his daughter's 'mixed' rather than her 'non-mixed' two- and three-word utterances. After all, when the occurrence of 'mixed utterances' is seen as evidence for a 'one unit' system, by the same token the simultaneous appearance of 'non-mixed' utterances can be seen as evidence against such an interpretation. (De Houwer, 1990:38).

Another widely-cited reference in support of the one-system hypothesis is the work of Volterra and Taeschner (1978) followed by Taeschner (1983). Volterra and Taeschner (1978) proposed a three-stage model of early bilingual development. According to this model, the child at first possesses one lexical system composed of lexical items from both languages. In stage two the child distinguishes two separate lexical codes but has only one syntactical system at her/his disposal. Only when stage three is reached do the two linguistic codes become entirely separate. This model seems attractively neat, and it has found a fair number of supporters, some of whom adopt it explicitly (e.g. Saunders, 1988a and 1988b, and Arnberg, 1987), while others do so implicitly, but not quoting any opposing view on syntactic development (e.g. McLaughlin, 1984) or by referring to the 'slow separation' or 'final separation' (Grosjean, 1982) as a common feature of bilingual children's speech. (cf. Hoffmann, 1991).

Some weaknesses have been found with Volterra and Taeschner's model. For instance, Lanza (1997) states that in Volterra and Taeschner's presentation of stages no attempt is made to sort out whether mixing may be due to the dominace of one language over the other or whether the mixing may be due to the context of use. Hoffmann (1991) also argues that Taeschner's study suffers from a certain methodological weakness, since it is

of two there was no attempt by his child yet to split the one medium of communication into two parallel ones consist of the child's sound system and the occurrence of early two- and three-word utterances containing lexical items from both Languages, i.e. mixed utterances (Leopold, 1970, c.1939-49. Vol. III:186).

As far as the phonological system is concerned, Leopold claims that at the end of the second year, his daughter Hildegard "was still trying to weld two linguistic systems into one unit" (Leopold 1970, c.1939-49, Vol. II:06). The evidence for this, as put by De Houwer (op cit), is quite puzzling. Preceding it we find the following text:

> The sounds of English and German are too similar to produce differentiations in the child's early rough imitation. Those in which they differ [...] belong to the latest sounds learned by monolingual children, and had not yet entered into Hildegard's store of sounds (Leopold, 1970, c.1939-49, Vol. II:206).

As De Houwer says. Leopold is basing his 'one unit' interpretation on empirical data that reflect adult input systems which have a great deal in common, and, as himself admits, whose differences are too complex or too subtle to be incorporated in any child's speech production before the age of two. Thus, Leopold's claim about his daughter's using 'one linguistic system' as far as phonology goes must be rejected as not founded on sufficient empirical evidence.

As to the mixed lexical items that Leopold cites as evidence for the existence of one 'hybrid system', Leopold found that before the age of two, Hildegard freely mixed English and German vocabulary within two-and three-word utternaces. This Leopold interpreted as a sign that Hildegard did not yet use "two separate systems of speech" (Leopold 1970, c. 1939-49, Vol. I:179), but that instead she used "one medium of communication" (Leopold, op cit, p. 186).

Introduction

One of the major questions in BFLA studies has been whether the bilingual child initially forms one linguistic system, which s/he gradually differentiates into two separate linguistic systems, or whether the child is capable of discriminating between the two linguistic systems from an early age. Review of the literature shows that this question remains yet to be resolved. As De Huower (1990) asserts, the extent of our knowledge about how bilingual children acquire their two languages is very limited. We do not know whether bilingual children in general develop their languages separately from one another or not. This is largely due to the fact that researchers in the field have not sufficiently taken into account the potential importance of the nature of child's exposure to the two input systems.

With regard to the onset of early bilingualism, two opposing theories emerged, approximately at the same time (the 1970s). Scholars have been divided into two groups with regard to the issue in question. The first group advocate what has been referred to as the 'one-system theory' (Redlinger and Park, 1980), or the 'unitary language system hypothesis" (Genesee, 1989). The second group propose the 'two-system theory' which was initially referred to by Bergman (1976) as the 'independent development hypothesis'. (see also Padilla and Liebman, 1975; Padilla and Lindholm, 1984; De Houwer, 1990; and Hoffmann, 1991).

The Unitary Language System Hypothesis

This theory holds that the bilingual child does not, initially, distinguish between the two language systems. Instead, the child starts by using one hybrid system, which only gradually becomes separated.

The first scholar to mention a 'mixed' or 'hybird' stage in the development of BFLA was Werner Leopold (1939-49). Other researchers in favor of the one-system hypothesis have relied on Leopold's account to varying degrees. The two sets of data that Leopold takes as a basis for stating that at the age

Bilingual First Language Acquisition: One System or Two?

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Abstract

One of the most controversial and unresolved questions in bilingual first language acquisition (henceforth BFLA) is whether bilingual children develop one mixed or two independent linguistic systems. Many scholars in the field of BFLA are in favor of the one-system hypothesis (Leopold 1970; Swain and Wesche, 1975; Volterra and Taeschner, 1987; Grosjean, 1982; Taeschner, 1983: McLaughlin, 1984: Vihman, 1985: Arnberg, 1987: Saunders, 1988a). In the studies that claim the validity of the one-system hypothesis, ***language mixing*** has been interpreted as evidence for the bilingual child's lack of language differentiation at an early age. This position is rejected here on empirical grounds and evidence is provided, instead, in support of the 'two-system hypothesis'. Quantitative analyses of the data revealed that only a small proportion of multi-word utterances was mixed and the rest were language specific. Results also showed that the subject of the present study demonstrated bilingual awareness and language differentiation through spontaneous translation and code-switching from a very early age.

Key Words: BFLA, language mixing, spontaneous translation, code-switching.