

Bilingualism in Childhood

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Abstract. In some parts of the world, acquiring a second language in childhood may be feared and resented for its assumed negative consequences. To investigate this issue, this paper compares and contrasts the results from the earlier studies with the results from the later studies on bilingualism in childhood in an attempt to highlight the source of this fear on one hand, and to mitigate the resentment on the other. The literature of bilingualism in childhood, as discussed in this paper, can be characterized as entwined and interdependent. Therefore, this paper focuses only on certain debatable key themes discussed in the literature of bilingualism in childhood; it is beyond the scope of this paper to cover all the issues related to childhood bilingualism. Most importantly, this paper discusses the effect of bilingualism on cognitive development in childhood, and shows why earlier studies have been bluntly rebutted by later studies conducted in the second half of the twentieth century. In general, this paper aims to refute the resentful assumption that acquiring second language can delay children's cognitive development or can be at the expense of their native language.

Introduction

De Houwer (1995) stated that two factors have recently contributed to the increased interest in bilingual children's language: namely the growing bi- and multilingual awareness, and the increased interest of researchers in the cross-linguistic studies of language acquisition. With the growing of bi- and multilingual environments in some parts of the world, children find themselves in a position where they hear two or more languages; and consequently, they grow up developing proficiency in two or more languages. Therefore, as Romaine (1998) argued, such children have no choice in becoming bilingual. Some studies suggested that hearing two or more languages might hinder children's cognitive development or could result in language disorder or delay for the bilingual children. Others viewed children's mixing of two languages as a sign of confusion.

Romaine (1998) argued that, in principle, the acquisition of bilingual competence is similar to that of monolingual competence. Romaine further argued that bilingual competence had been viewed as the sum of the acquisition of monolingual competence in each of the two languages instead of a unitary system.

Whether bilingual acquisition and monolingual acquisition are similar or not, Romaine emphasized

that bilingual acquisition has different routes; that is, a simultaneous route where children acquire both languages at the same time, and second, a consecutive or successive route where children acquire one of the languages before the other. Simultaneous acquisition of more than one language takes place when a child is exposed to two languages from birth onwards, as suggested by Padilla and Lindholm (1984). In general, Romaine (1998) pointed out that "The available literature on children's bilingualism is still fraught with methodological problems and does not yet provide a solid basis for answering decisively many of the questions ..., e.g., to what extent are the bilingual's two languages differentiated?, to what extent does bilingual acquisition parallel monolingual acquisition?" (Romaine, 1998: p. 61). She further emphasized that bilingual children do not have twice the number of words in their vocabulary as monolinguals; however, this fact does not hinder their ability to communicate in either language. Doyle and associates (1978) examined 22 bilingual children and 22 monolingual children between the ages of 3.6 and 5.7 (quoted in Romaine, 1995: p. 189). They found that although the monolinguals had a greater number of words, the bilinguals had superior verbal fluency to that of the monolingual. They reached this result by measuring both kinds of children's ability to tell

stories and by the number of concepts expressed in each story told by each child. Romaine hence restated that the best way to approach bilingualism is by investigating the linguistic performance of a child. Moreover, she stated that the study of bilingualism should be approached from a sociolinguistic point of view. This, according to her, can help in investigating language use in society, and studying the communicative competence of children including the grammatical aspect.

The literature in childhood bilingual acquisition is huge, ramified, and interwoven. Topics are interdependent: Researchers need to realize that one needs the other to explain any bilingual phenomenon in a coherent picture. Therefore, discussing the relationship of bilingualism and cognition would inevitably lead to discussing the developmental sequence in childhood bilingualism, and vice versa. Similarly, investigating these two issues will lead one to talk about types of bilingualism that some researchers have suggested, which will be discussed later in this paper. Therefore, this paper highlights some important studies in the area of childhood bilingualism. It sheds light on specific topics that I deem to be most crucial for language planning policy. This paper starts with giving some of the definitions found in the literature about childhood bilingualism. Then, types of bilingualism in childhood are introduced according to the specifications provided by researchers, primarily Romaine (1995). The third topic discussed is the theories of childhood bilingualism. This topic attempts to present the different interpretations of bilingual children's performance in the light of some theories introduced by certain studies, old and new. The fourth issue attempts to consider how bilingualism could affect cognitive development of bilingual children. The ways in which bilingual children process two languages is the next topic. To see how bilingual children differ or resemble the monolingual children in their linguistic and cognitive development constitutes the last issue.

Definition

There are several definitions for bilingual adults, and that is not the primary interest of this paper. With respect to the definition of bilingual children, Lyon (1996) stated that it might be difficult to define a child as bilingual while his/her language is still only rudimentary. Romaine (1995) explained that earlier studies were of two extremes: Some specified that bilingualism should be 'native-like' control of two languages, while other specified that a production of

complete meaningful utterances of the other language would be enough to call one bilingual. In general, some studies referred to bilingual children as those who can use the two languages beyond the one-word stage. Lyon emphasized that to determine if a child is bilingual, his/her actual language use should be measured rather than his/her language knowledge. In this, she agreed with Romaine (1995) in that bilingualism should be approached from a sociolinguistic view.

In general, bilingual language acquisition "refers to the result of the very early, simultaneous, regular, and continued exposure to more than one language" (De Houwer, 1995: p. 222).

Types of Bilingual Acquisition

Romaine (1998) stated that the classification of the types of early childhood bilingualism is based on three factors, namely, the native language of the parents, the community language, and the strategy the parents adopt in speaking to their child. Romaine (1995) provided a very useful typology of Bilingual Acquisition in Childhood with a description of three criteria for each type. In the first type '*one-person-one language*', the parents share different native languages, but each has some competence in the other's variety. The language used in the community is one of the parental languages, and the strategy used in raising the child bilingually is for each of the parents to speak their own language to the child from birth. The second type, *non-dominant home language*, is the same as in the first type, except that the strategy is for parents to speak to their child in the language that is not dominant in the community. The rationale behind such a strategy is that the child will acquire the *dominant community language* as a result of full exposure to the language outside the home, particularly in nursery school. In the third type "*Non-dominant home language without community support*", the parents share the same native language, which is not the dominant language in the community. The strategy is for both parents to use their native language with their child, for example, French spoken by both parents in the United States. The "*Double no dominant home language*" without community support represents the fourth type. In this type, parents do not share the same native language, and neither of the languages is the dominant language in the community. The strategy is for each parent to speak his/her variety to the child from birth. The fifth type is *Non-native parents*. Here, both parents have the same native language, and it is the dominant language in the community. The strategy is that one

of the parents always speaks to the child in a language that is not his/her native language. In the last type, “*Mixed languages*”, both parents are bilingual, and the community may also be bilingual. The strategy is that parents code-switch and mix languages.

Leopold (1939-49), who is considered one of the founding fathers of the field of child bilingualism, raised his daughter bilingually in English and German. He only spoke to his daughter in German while his wife spoke to the child in English. Leopold’s case exemplifies “Type I” as specified by Romaine (1995).

De Houwer (1998) talked about “*early active*” versus “*early passive*” bilingualism. She defined early active bilingualism as the tendency of a pre-school child to regularly communicate in either of two languages. On the other hand, she defined early passive bilingualism as the tendency of a child under the age of six to speak in only one language, though he or she understands both.

Furthermore, Romaine (1995) talked about two different types of bilingualism that had been identified in the old literature of bilingualism. She defined “*coordinate bilingualism*” as learning two languages in two different environments, for example, school and home; in this type, two conceptual systems would develop, and the two words of both languages that refer to the same item could represent two different conceptual meanings. By contrast, “*compound bilingualism*” develops when two languages are acquired in the same environments; thus, a single mental representation stands for one item, though two different words are used to refer to it (Romaine, 1995). Thus, it could be concluded from Romaine’s argument that the two languages are interdependent in compound bilingualism while they function independently in the coordinate bilingualism.

Theories of Bilingual Acquisition in Childhood

This section will highlight three theories of bilingualism as identified by Lyon (1996). Other theories will also be reviewed too. Lyon presented three theories as follows.

Gradual Differentiation theory

The first theory is the *Gradual Differentiation theory*. Lyon indicated that Swain (1972) had argued that children growing up bilingually acquire ‘Bilingualism as a first language’. Swain argued that there are no fundamental differences between the

acquisition of one language and the acquisition of two in early childhood: Bilingual children only use one language store, and gradually become aware of the two language systems and support them according to the context. Vihman (1985) supported Swain’s argument by reporting a finding of a 25-month boy who separated two language systems.

Separate Development theory

This theory, according to Lyon, shows that the bilingual children separate the two language systems early in their language acquisition and that the separation remains except for some mixing of some words and phrases. This theory is supported by Genesee (1989). Genesee provided phonetic evidence of infants a few weeks of age who could discriminate between their families’ languages and a foreign language. Lyon, therefore, argued that two variants of this theory are apparent: a strong version of the theory where all language systems, phonology, syntax, and lexicon are separated and discriminated right from the beginning of language production; and a weak version that states that except for mixing common lexicons, the two syntactic systems of both languages are separated by bilingual children without any confusion (Lyon, 1996). Congruently, De Houwer (1995) provided evidence from a case study of a Dutch/English bilingual child, who showed awareness of a two-language system. For De Houwer, evidence against “the separate developmental hypothesis” has not been established by any methodologically sound studies of morphosyntactic development in early bilingualism. Lyon concluded that both theories imply that the bilingual child sooner or later develops two distinct language systems.

Threshold theory

The third theory identified by Lyon is the *Threshold Theory*. She stated that this theory is usually referred to as a model and it focuses on school children rather than young children. Lyon described this theory according to Cummins (1978), who suggested that children benefit from learning the second language only when they have already developed a threshold level of their native languages at the time of exposure to the second language. According to Cummins, learning the second language will be advantageous for such children. On the other hand, citing Lambert (1974), Lyon indicated that a second language will be harmful when children acquire their second language at the expense of their first language, for example, the Hispanic children in the United States. Lambert termed the first ‘additive bilingualism’ where the second language is added to

the first, and termed the latter ‘subtractive bilingualism’ where the second language replaces or dominates the poorly established first language. (quoted in Lyon, 1996: p. 57). For De Mejia (2002), the additive bilingualism can result in positive cognitive outcomes, while the subtractive bilingualism can lead to loss of native language and cultural identity. For the second language to be additive rather than replacement, Cummins (1991), emphasized that before children begin to learn a second language, they need to reach an optimal level in their native language so both languages progress, with one superior to the other.

Other theories include the following.

The single system theory

The bulk of studies suggest that bilingual children approach language in a similar way that monolingual children do (De Houwer, 1995). More detail will be introduced later.

The sequential model of bilingual language acquisition

Lyon (1996) argued that simultaneous exposure to two languages does not necessarily result in simultaneous acquisition of the two languages. It appeared according to Lyon that the children acquire one way of communicating before trying another. Bilingual language acquisition, according to this model, is viewed as a sequential process where the early threshold is crossed by one language initially, where one language develops to the simple sentence stage (Lyon). Lyon explained that if the bilingual child failed to pass through this initial threshold in the first language, he or she could encounter negative cognitive effects as a result of developing two primitive syntactic systems. She concluded that such ideas are still tentative and need to be investigated further.

Bilingual Cognitive Development/Effects of Bilingualism

McLaughlin (1994) questioned the consequences of raising a child bilingually, and how bilingualism would affect the cognitive development of a child, and whether it is advisable to raise children bilingually or not. He argued that early bilingualism has positive consequences for cognitive development. One of the studies that McLaughlin cited goes back to 1913, where Ronjat (1913) stated that his son had positive consequence from being raised bilingually in French and German. Ronjat stated that his son’s cognitive development was quite normal, and by the age of 15 his son reached equal fluency on both

languages, using French for technology and German for literature.

McLaughlin further remarked that this study contradicted the conclusions of the studies in the 1920s and 1930s which argued that early bilingualism would result in negative consequences for children cognitive development. He, however, argued that although present research has proved positive effects on the child’s linguistic development, the early bilingualism effects on cognitive development are controversial.

In a similar vein, Homel *et al.* (1987) argued that fluency in two or more languages is a sign of a remarkable functioning of a cognitive process that can discriminate and separate languages being used as well as using them interchangeably. One of the studies they cited, though quite old, is mentioned here for its interesting consequences. They explained that a study of bilingual children in Montreal schools, which was published in 1962, represented a turning point. The study was meant to document the negative consequences of bilingualism for cognitive development so that a remedial program could be developed. Ironically, the study proved that bilingualism had positive consequences for cognitive development, as the bilingual children significantly outperformed the monolingual children on the measures of verbal intelligence. They concluded that there are two reasons why it is a common belief that bilingualism could only negatively affect cognitive development: (1) “There is always a lag between the publication of research in journals and its appearance in secondary sources such as textbooks”, and (2) “research on childhood bilingualism and biculturalism has never been a major component in mainstream American psychology” (p. 137). A third reason can be that recent studies “denunciate earlier studies since they depended largely on L2 users who differed in many factors other than knowing a second language. The comparison realized in the earlier studies was unfair since they were based on the participants from advantaged-middle class children as the control group, and disadvantaged immigrant minorities as the experimental group” (Akbulut, 2007: p. 422).

In general, Edwards (1994) came to the conclusion that neither negative nor positive consequences of bilingualism had been demonstrated by research to affect cognitive development because “in almost every case, the findings of research are either contradicted by other research or can be questioned on methodological grounds” (p. 70).

With respect to language disorders that might be caused by the acquisition of a second language in

early childhood, De Houwer (1999) emphasized that there is no scientific evidence to date that could prove that bilingualism in childhood can result in delays or disorders in language acquisition. She stated that many children all over the world grew up bilingually from infancy without having any language disorders. She also argued that there is no scientific evidence that one language would benefit from not acquiring the other, and that there is no evidence that giving up the home language in favor of the dominant community language would lead to better acquisition of the community language.

Having less number of words among bilinguals may not reflect language delay. Kendale and Fogle (2006) stated that very clearly by emphasizing that: "No empirical evidence links bilinguals to language delay of any sort" (paragraph 6). The fact that bilinguals have less number of words is probably due to the assumption that, "Bilinguals' less frequent experience with either language should cause delays in aspects of language in which frequency is crucial for acquisition" (Nicolade, 2008: p. 176).

According to Lyon (1996), the Threshold Hypothesis assured that for children's cognitive development (at school age) to be positively affected by bilingualism, the bilingual children first need to develop a threshold level of language competence in their second language. This threshold level is of two sub-levels, a lower threshold needed for avoiding the negative effects of bilingualism, and the higher threshold needed for reaping the positive effects of bilingualism.

In conclusion, Lyon (1996) clarified that most of the studies on bilingualism and cognitive development have used school-age children as their participants; therefore, to investigate the effects of bilingualism on early childhood cognitive development, research on pre-school bilingual children should be conducted.

Edwards (1994) argued that the negative consequences of bilingualism on bilingual children are not a byproduct of the process of bilingual development, but as a result of social, personal, cultural or other factors. Edwards's argument here is echoed by Romaine's (1995) demand for a new investigation that studies bilingualism from a sociolinguistic perspective. This inclination towards emphasizing the importance of sociocultural factors in bilingualism might be due to the fact that studies conducted after the 1960s, which controlled for the variable of sociocultural differences, found that bilingual children showed advantages over monolingual children (Akbukut, 2007).

The Process of Bilingual Acquisition

Saunders (1982) claimed that bilingual acquisition in childhood goes in three developmental sequential stages. The first is the 'one-lexicon-processing' stage from both languages. Saunders claimed that the bilingual child processes the words from both languages at this stage as if they belong to one linguistic system. De Houwer (1995) provided a contradictory argument. She argued that the bilingual child is aware that the words at this stage belong to two different languages, and that the bilingual child who uses no translation equivalents does not stand on solid ground. Citing Quay's (1993) study as a convincing evidence, De Houwer stated that this study- where a Spanish/English bilingual subject did use cross-linguistic equivalents at this stage- proved that early equivalent points do actually occur in early childhood bilingualism.

In the second stage, although bilingual children can discriminate between the lexicon of both languages, they may not be able to do so with respect to syntactic systems (Saunders, 1982). However, De Houwer, who called this stage the 'initial single grammatical system hypothesis', argued that this stage was outspokenly criticized by some researchers whose studies provided evidence for the early awareness of two syntactical systems of the two languages. According to De Houwer, the most convincing evidence that proves that the syntactic separation of the two linguistic systems of both languages occurs early in bilingualism comes from a variety of longitudinal case studies which explicitly studied the separation.

During the third stage, the child can discriminate and separate the linguistic systems of the two languages and can speak to others accordingly. This is expected as the child would have achieved linguistic competence by this stage. Redlinger and Park (1980) argued that language differentiation is a gradual process where bilingual children go through various stages of linguistic development moving from maximum mixing to minimum mixing of the two languages: the higher the increase in linguistic development, the less mixing occurs. More mixing indicates linguistic incompetence. Genesee and Nicoladis (2007) argued that, "child bilingual code-mixing has often been interpreted as a sign of incompetence and even confusion" (p. 330).

In her discussion of the 'Separate Developmental Theory', Lyon (1996) concluded that two variants of the SDT emerged: First, a separation occurs in all linguistic systems, phonology, syntax and lexicon of both languages; and second, in the

weaker version an initial mixing of words of both languages may occur, but the two syntactic constructions are separated and developed without confusion. She concluded that “in both versions, the early language mixing is not very significant, does not undermine the notion of separate language development, and can be seen as immature pragmatic awareness” (p. 55).

In a related vein, Pfaff (1998) studied a bilingual German/Turkish child from the year of 1; 6 to 2; 6. Pfaff concluded that the child maintained separation of pluralization, word order, and the presence of the auxiliary in verb phrases of both systems of the Turkish and German languages.

Arnberg and Arnberg (1992) claimed that awareness of the two syntactic systems of both languages plays a profound role in the argument of the separation issue. This difference in awareness, as Arnberg and Arnberg (1992) claimed, can be developed as a result of social factors such as the patterns parents adopt to expose their children to the two languages, and the manner parents use to draw their children’s attention to the lexicon and structure of both languages. The Arnbergs’ argument is supported by Lyon, in that bilingual children before the age of three are capable of developing language awareness and of beginning to code-switch. This is also supported by Genesee and Nicoladis (2007) who emphasized that, “bilingual children’s code-mixing is sensitive to contextual variables, including those related to interlocutor ..., topic ..., and the purpose of the interaction” (p. 332). To argue for the meta-lingual awareness of young bilingual children, Romaine (1995) reported a study of a young bilingual child who was exposed to English at a day care center and Hebrew at home: This child, as Romaine indicated, was able to discriminate between both languages.

Approaching the mixing issue from another angle, Romaine (1998) argued that between the single-system hypothesis and the two-system hypothesis lies the case of those bilingual children who hear a code-mixed variety by adults. According to Romaine, it cannot be argued for sure if two separate languages are acquired by those children.

Lyon (1996) stated that bilingual children pass through six stages in their bilingual development. Reporting a study of three bilingual English/Welsh children, she concluded that the bilingual children develop according to the following stages: Stage 1, the stage of one-word utterances with MLU (mean length of utterance) of 1.75, and the age of 18 months; Stage 2, using two words together with MLU 2.25 and at the age of 18-24 months; Stage 3, the three-element stage with MLU 2.75 and at 24-30

months; Stage 4, the simple sentences/four elements with MLU 3.50 at the age of 36 months; Stage 5, the stage of joining phrases with ‘and’ and ‘but’ / embedding with MLU of 4.00 at about 48 months of age; and Stage 6, the stage of more complex utterances with pronouns and auxiliary verbs (MLU indicated as not useful) at the age of about 48 months. Lyon indicated that the study of the three English/Welsh bilinguals provided clear evidence that they developed one language first and only when they developed to the Stage 4 or 5 they developed beyond the one-word utterance stage in their second language. It could be argued here that the children in this study might have received less input in the second language, especially in the earlier stages.

Developing Sequences of Both Bilingual and Monolingual Acquisition

Romaine (1995) stated that the bulk of the studies argue in support of the idea that both bilingual and monolingual children pass through the same development sequences of language acquisition. Therefore, the closer the two languages are, the more similar the development errors are in both languages (Romaine). Congruently, Genesee and Nicoladis (2007), stated that, with respect to communicative competence, the “bilingual children face the same communication challenges as monolingual children” (p. 333).

De Houwer (1995) argued that in theory separate bilingual development that has a different developmental system from that of monolingual acquisition is possible. She stated further that bilingual children’s errors might not be a consequence of inter-linguistic influence. She also argued that since both bilinguals and monolinguals follow the same developmental route, bilingual children go through the same stage of linguistic development that monolingual children go through, starting from the babbling stage and ending at the multiclausal stage. Similarly, Genesee and Nicoladis (2007) explained that, “bilingual children reach a number of important milestones within the same age span as their monolingual peers, such as the onset of canonical babbling ..., first words ..., and overall rate of vocabulary growth” (pp. 335-6). She concluded that the bulk of research on the comparison between the from-birth monolingual and bilingual children had come to the conclusion that both the monolingual and bilingual children share a similar developmental sequence in language acquisition, including developmental errors. In congruence with De Houwer’s argument here, Mayor (2002) explained the key differences between monolingual language

acquisition and bi-multilingual language acquisition from birth hinge “on the relative extent to which the child experiences *languages* as an undifferentiated phenomenon, or recognizes *languages* as separate systems. To a large extent this will depend on maturation” (quoted in Mercer and Swann, 2002: p. 48). This echoes Swain’s idea (1972) that those learning a second language from birth have ‘bilingualism as a first language’. Mayor argued that while the monolingual baby learns how to talk and learns the sound system of one particular language simultaneously, the bilingual baby will be in a similar situation but with a broader corpus of incoming data.

Romaine (1995) argued that both monolingual and bilingual children pass through the same developmental level with respect to the order of acquisition of syntactic structures. For example, she indicated that errors in subordinate clauses made by bilingual English/Italian children and monolingual English/Italian children appear to be the same for both kinds of children. This, for her, indicates that they both pass through the same developmental order in acquiring language.

Romaine concluded that the greater the similarity is in the two languages’ structures, the greater the similarity of errors made by bilinguals in both languages is. However, Romaine explained that studies on language skills have shown that once one language becomes more dominant, more errors would emerge in the acquisition of the other because more complex aspects of the other language are either undeveloped or are acquired then lost. That, however, does not contradict the single developmental sequence hypothesis where for bilingual children to follow the same developmental order, they need to acquire both languages equally from the beginning, which was labeled by Swain (1972) as ‘bilingualism as a first language’ and ‘bilingual first language acquisition’ by Meisel (1990) and Genesse and Nicoladis (2007).

Errors with respect to phonology in bilingual children pose some vagueness or problems of interpretation, as it might be difficult to determine whether such errors are due to incomplete acquisition or interference from the other language. Romaine (1995) argued that some researchers prefer not to discuss interference at early age because of the great amount of mixing of both languages. She indicated that such avoidance of discussing interference among most studies is due to the fact that researchers believe that bilingual children younger than three years of age are not yet able to separate the two languages. This agrees with Mayor’s (2002) idea that bilingual babies view both languages as undifferentiated phenomenon.

A study of Welsh/English bilingual children, reported by Romaine, poses an ambiguous case. For Romaine, it is perplexing to decide whether an interference or delayed acquisition is taking place, with respect to their phonological development. These children, as Romaine pointed out, used /k/ for Welsh /x/, and it is not easy to say that these children like monolingual children are still in their developmental acquisition process, and both make the same mistakes, and it also cannot be argued for sure that interference from English is taking place. In general, Genesse and Nicoladis (2007) warned that most of the studies on phonological development conducted in the last ten years were diverse in linguistic focus and in the ages of the children studies, and, therefore, must be interpreted with great caution.

Later Childhood Bilingualism in Contrast to Early Childhood Bilingualism

Romaine (1998) argued that language level and skills are greatly affected by the age at which bilingual acquisition takes place. Therefore, she pointed out that in the bilingualism literature two distinctions are familiar: *simultaneous* and *sequential* acquisition. She explained that researchers used simultaneous acquisition to mean acquiring both languages from birth onwards. Swain (1972) referred to such acquisition as “bilingualism as a first language”, while Meisel (1990) and Genesse and Nicoladis (2007) called it “bilingual first language acquisition”. Sequential acquisition, on the other hand, is when acquisition of the second language takes place in later childhood (Romaine, 1995). Likewise, Edwards (1994) added the concept of early successive bilingualism in early childhood and later successive bilingualism in older learners to differentiate between bilingualism acquisition by young and older children.

Edwards argued that the idea that the best time for someone to be bilingual is from birth onwards is open to controversies. Generally, he stated that early childhood is better than anything, because studies argued that the young brain is more flexible and plastic than the older one. Based on the Critical Period hypothesis, Romaine (1995) similarly argued that the early bilingualism is better than later bilingualism. She explained that according to this hypothesis, after the supposed critical period (the age of puberty), the brain loses its plasticity and the left hemisphere becomes in charge of language functions; and accordingly, the language acquisition becomes more difficult. She further argued that some studies provided evidence that supports that the earlier the

children acquire the second language the better phonological ability they have in that language. With respect to analytical skills, Romaine showed that some studies suggested that older children outperform younger children, and other studies found that younger children do not outperform older ones on all aspects of the second language. Romaine concluded by stating that, "I would say that what is 'critical' about second language acquisition is not age so much as the circumstances in which it takes place" (1995: p. 240). She argued that with respect to a child's development there are no critical periods that are better or worse for language acquisition, and that bilingualism is always framed by a particular social context. Therefore, according to Romaine, the social context will affect for good or bad the performance level of the same age children.

To conclude, Romaine (1998) stated that the available literature on bilingualism in childhood can be attacked for methodological problems, and it has failed to provide decisive answers to many questions concerning bilingualism, for example, "to what extent does bilingual acquisition parallel monolingual acquisition?" (p. 61).

Conclusion

Studies have shown that the ways in which children learn to communicate and use language are almost similar, whether they are acquiring one language or two (Lyon, 1996). Lyon argued that early bilingual children neither develop a single mixed language code and then separate two codes, nor do they develop two distinct languages from the beginning. She stated that a bilingual child develops one language code to a simple syntactic stage before starting to develop a second language code. Based on a study of bilingual English/Welsh children, she argued that for the sequential bilingual children to start to produce single words and phrases in their second language, they first need to develop to a complete sentence stage in their first language. Therefore, for Lyon, the sequential Model of language Acquisition is the best framework that can account for how children acquire two languages.

With respect to the relationship between cognitive development and bilingualism, Homel *et al.* (1987) concluded that bilingualism does not lead to negative cognitive development in and of itself. On the contrary, they argued that it results in positive consequences, as bilingual children have better metalinguistic awareness that leads to positive cognitive development. However, they concluded their argument by admitting that bilingualism has

some influence on the cognitive system, but this kind of influence is still to be researched.

In general, McLaughlin (1994) stated that the bulk of the studies on bilingualism proved that bilingualism is beneficial to children and that the belief that it has negative effects stands on no solid ground. For the effects of bilingualism on cognitive development, McLaughlin projected that such an important issue would be one of the challenging issues that would be investigated in the future of the research on childhood bilingualism. He concluded, "in this area, as one critic said of Hegel's philosophy, we are in a night where all cows are black" (p. 32).

Lyon (1996) argued that studies showed that bilingualism could lead to positive effects on cognitive skills for bilingual children between ages three and five. However, she stated that most of the studies regarding the issue of bilingualism effects on cognitive development used school-age bilingual children; and therefore, bilingual pre-school children need to be studied further.

Others, on the other hand, criticized the earlier studies that tried to draw a relationship between bilingualism and cognitive development as flawed by inadequate control in their experimental procedures. For example, Edwards (1994) pointed out that these studies did not account for other factors, such as social interaction, that could affect cognitive development of bilingual children. He further elaborated that these studies tried to draw a causal relationship between cognitive development and bilingualism, while it is in fact hard to say for sure which caused the other. For Edwards, the earlier studies of bilingualism presented bilingualism and cognitive development as independent issues, while, as Akbulut (2007) emphasized, both should be viewed as interdependent. Edwards explained that the earlier studies (in the first half of the twentieth century) tried to draw a negative relationship, while the later studies (conducted from the 1960s onward) tried to show a positive effect of bilingualism. He emphasized that before we can draw any kind of relationship between bilingualism and cognitive development, some important steps should be followed before any study could be done on such an issue: (a) an adequate definition of bilingualism needed to be stated, (b) reaching an assurance of comparability between bilingual and monolingual groups which can be reached by controlling all possible variables, such as sex and age, and (c) approaching a careful interpretation of any relationship between cognition and bilingualism.

Similarly, Akbulut (2007) argued that it is important to note that there are crucial

methodological problems in all the studies used the experimental paradigm of research on the effect of bilingualism on children's cognitive development. Precisely, he pointed out that, "The basic problem is that bilingualism has been treated as a single independent variable in research designs, and dependent variables such as cognitive flexibility, metalinguistic development, or acquisition of literacy are considered to be merely bound to this independent variable" (Akbulut, 2007: p. 426).

Taking a similar stance, Romaine (1995) criticized earlier studies for ignoring a crucial variable which is the social context in which bilingualism takes place. She, therefore, concluded that it is a myth that the process of bilingualism could cause bilingual children to have poor achievement at school, and since bilingualism always develops in a particular social context, the socioeconomic status of bilingual children represents a crucial intervening variable.

Romaine (1998) stated that those studies that suggested a negative relationship between bilingualism and cognitive development had largely reached their conclusions by studying subtractive bilingualism in submersion type programs, where emphasis is on language shift rather than bilingual development. On the contrary, those studies that tried to relate positive cognitive development had come to such conclusions by focusing their studies on additive bilingualism in immersion type programs, where development of both languages is enhanced (Romaine, 1998).

Alluding to the "Critical Period Hypothesis", Romaine (1995) concluded her argument about later childhood bilingualism by claiming that it is the social context in which the second language acquisition takes place that is critical, and not the age at which it takes place. She showed "that there are no critical periods in a child's development which are better or worse for language acquisition. Both good and poor levels of performance can be achieved with children of the same age depending on the social context in which learning takes place" (p. 240). However, due to the general lack of studies that investigate the relationship of bilingualism and environmental factors, De Houwer (1998) argued that it is difficult to draw any relationship between bilingual children's language development and their surrounding environments.

In general, the nature of childhood bilingualism is very complex and entwined, and issues are interdependent. Without understanding this nature, one might come to an inaccurate conclusion, especially when it comes to the relationship of bilingualism and cognitive development in childhood.

A clear understanding of the relationship of bilingualism and cognition is dependent on acknowledging both sides of the issue, that is, the developmental sequence in childhood bilingualism and the children's cognitive development. As discussed in this paper, these two interdependent issues have led researchers to suggest various types of bilingualism that can help facilitate the understanding of the interrelated nature of bilingualism. Moreover, to thoroughly investigate the issue of bilingualism in childhood, this paper has attempted to highlight important studies in the area of childhood bilingualism since the first half of the last century. I strived to shed some light on important topics that I deem to be most crucial for language planning policy.

This paper discussed five important dimensions of bilingualism. It attempted to orient the reader with different definitions of bilingualism as discussed in the literature. Most importantly, it discussed the effect of bilingualism on cognitive development in childhood, and showed how earlier studies, which were shaped and guided by the orientation of finding out the negative consequences of bilingualism, were refuted meticulously by later studies started in the second half of the twentieth century (Romaine, 1995). Earlier studies have been attacked mostly for methodological problems. Also, types and theories of bilingual acquisition have been thoroughly discussed here. Issues like the stages of bilingual acquisition and whether bilingual and monolingual children follow the same development sequences of language acquisition or not have been also reviewed. Overall, the purpose of this paper is to present the reader with a synthesis of related literature in childhood bilingualism in an attempt to devalue the assumption that learning a foreign or second language can result in negative consequences on one hand, and to help embrace the new global direction that bilingualism is the norm, or at least should be the norm in this interdependent world.

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الثنائية اللغوية في مرحلة الطفولة

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(قدم للنشر في ١٢/٢٩/١٤٢٩هـ؛ وقبل للنشر في ١٤/١/١٤٣٠هـ)

ملخص البحث. في بعض الدول يتخوف البعض ويستاء من اكتساب أبناءهم للغة ثانية في مرحلة الطفولة لما قد ينتج عنه من آثار سلبية مزعومة من تعلم لغة ثانية في هذه المرحلة الحرجة من العمر. ولسبر أغوار هذا الأمر، يقارن هذا البحث نتائج الدراسات السابقة بمثيلاتها من الدراسات المتأخرة التي أجريت على الثنائية اللغوية في مرحلة الطفولة في محاولة لإبراز مصدر هذا التخوف من جهة، ولتخفيف حدة الاستياء من جهة أخرى. ولأن مواضيع الثنائية اللغوية متشابكة ويعتمد كل منها على الآخر، يقتصر هذا البحث على مواضيع معينة أساسية مطروحة للنقاش في أدبيات الثنائية اللغوية في مرحلة الطفولة. كما أنه خارج نطاق هذا البحث استعراض كل المواضيع المتعلقة بالثنائية اللغوية. ويركز هذا البحث بشكل أساسي على قضية تأثير الثنائية اللغوية على النمو الإدراكي في مرحلة الطفولة، ويظهر بشكل جلي الحجاج التي اعتمدت عليها الدراسات المتأخرة، والتي أجريت ابتداءً من منتصف القرن العشرين، في تفنيد نتائج الدراسات السابقة التي كانت في بداية القرن نفسه. وبشكل عام يهدف هذا البحث إلى دحض الزعم القائل بأن اكتساب لغة ثانية قد يؤدي إلى تأخر في النمو الإدراكي عند الأطفال أو أن يكون ذلك على حساب اكتساب اللغة الأم.