

Bilingual Children's Second Language Acquisition

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### Abstract

As the world becomes globalized, the number of children exposed to bilingual environments is rapidly increasing. Language involves multi-dimensional aspects such as linguistics and social environments. It is hard to define bilinguals and there is no agreed-upon definition of bilinguals among researchers. At present, a bilingual is defined in terms of level of proficiency of each language on a continuum. This paper explores early bilingual children in terms of second language acquisition (SLA) and how to discriminate and develop two different languages. After characterizing and categorizing bilinguals, the process of SLA by bilinguals was compared with monolinguals. Bilingual infants have competence to discriminate and develop two languages at the same time. Bilinguals have more divergent and critical thinking and efficient learning strategies compared to monolinguals. The benefits of bilinguals are shown in the case of balanced bilinguals. Continuous attention needs to be paid to providing a balanced bilingual environment to promote balanced language development.

*Keywords:* bilingual, monolingual, SLA, balanced language development

### Bilingual Children's Second Language Acquisition

As we are living in a more and more multi-cultural society in the globalized world, language related issues have become of greater importance. Language involves many complex factors such as politics, economics and culture. Language learning also includes many factors like the language policy of the community learners belong to, the learner's age and motivation, teaching or learning methods, the learner's living environment including parents' language and economic condition. Many studies have been conducted in the field of bilingualism associated with Second Language Acquisition (SLA), sociolinguistics, economics and education with a multidisciplinary approach. Bilingual education has been influenced by cultural ideology. As a result, bilingualism should be understood within a historical context (Baker, 2011).

As a society becomes more globalized, we see bilingual children more often than ever. According to the US Census Bureau (2010), the number of people speaking a language other than English at home in the US has increased by 140% in past 30 years. Specifically, 20% of residents five years old and over - 55.4 million out of 281 million people- in the US in 2007 are using a language other than English at home: Spanish (34.5 million speakers), Chinese (2.5 million speakers), Tagalog (1.5 million speakers), French (1.4 million speakers), Vietnamese (1.2 million speakers), German (1.1 million speakers) and Korean (1.1 million speakers).

Bilingualism with diverse languages is not confined to the US. Bialystok, Craik and Luk (2012) said that more than half of the world population is bilingual and bilingualism in Europe is more prevalent than in the US. According to the European Commission (2006), 56% of the population in European Union Member States are bilinguals; Luxemburg shows a high rate of bilinguals at 99%.

Given that a variety of languages other than English are used at home and the number of

bilinguals in English and some other languages has greatly increased globally, it is important to pay more attention to bilinguals in regards to language policy and education. This paper focuses on bilingual children's SLA, especially early SLA in children, and explores bilinguals in terms of characteristics of bilingual children's SLA, factors affecting bilingual children's SLA and benefits of bilingual children based on comparison in SLA between bilinguals and monolinguals. This paper will examine some limitations and suggestions about bilingual children's education based on the research results.

### **Definitions of Bilinguals**

There is no clear-cut and agreed-upon definition of bilinguals among researchers. Bilinguals include multi-dimensional aspects and involve complicated psychological and socio-cultural linguistic features, so it is hard to define in a simple way (Butler & Hakuta, 2004; Lieven, 2012). Bilinguals often refer to those who obtain "the knowledge and use of more than one language" (Butler & Hakuta, 2004, p. 114,). Historically, bilinguals were defined historically differently. Bloomfield (1933, p.56) showed a very limited and strict view of bilinguals, defining them as those who have "native-like control of two languages"; Haugen (1953, p.7) defined bilinguals as those who are fluent in one language and who "can produce complete meaningful utterances in other language". Researchers, including Kakuta (1986) and Mohanty and Perregaux (1997), defined bilinguals as those who "have various degrees of proficiency in both languages" (as cited in Butler & Hakuta, 2004, pp. 114-115).

Unlike the past when bilinguals were defined very limitedly in terms of formal rules of languages, present bilinguals tend to be defined more broadly in terms of communicative skills and the use of languages in everyday lives. According to Butler and Hakuta (2004), bilinguals are defined as those who "obtain communicative skills, with various degrees of proficiency, in

oral and /or written forms, in order to interact with speakers of one or more languages in a given society”(2004, p. 115). Grosjean (2004) defined bilinguals as those who “use two or more languages in their everyday lives”, while Valdes (2003) defined them in regards to degrees of proficiency of each language on a continuum (as cited in Baker, 2011, p.4 & p.8). Meisel (2004) stated that bilinguals use their two language abilities according to the context that they are in, so they are able to move on a continuum ranging from “a more monolingual to a truly bilingual mode” (p. 93).

Finally, given that bilinguals involve a degree of proficiency on a continuum, an individual's bilingual profile is likely to change over time. Butler and Hakuta (2004) claimed that “bilingualism is not static but dynamic” because each language proficiency might change due to a variety of variables (p. 120).

### **Classification of Bilinguals**

Bilinguals can be classified depending on the aspects of defining bilinguals.

**Balanced bilinguals vs. unbalanced bilinguals.** Balanced bilinguals and unbalanced bilinguals are differentiated in terms of proficiency level of each language. Balanced bilinguals refer to those who have approximately equal level of proficiency in two languages; unbalanced bilinguals refer to those who have distinctively different degrees of proficiency between two languages (Butler & Hakuta, 2004; Baker, 2011). Balanced bilinguals who have equal and strong proficiency in both languages might not be possible and rarely exist in reality (Baker, 2011; Meisel, 2004).

**Additive bilinguals vs. subtractive bilinguals.** Additive and subtractive bilinguals are classified in regards to relationship between two languages. Additive bilinguals refer to those who learned or acquired L2 in addition to their L1 proficiency, so L2 is not likely to replace L1.

On the contrary, subtractive bilinguals refer to those who learned or acquired L2 at the cost of losing L1, so L2 might replace L1 (Butler & Kakuta, 2004; Baker, 2011). Subtractive bilinguals are often seen where there is a gap in two languages' status instead of treating them equally.

**Simultaneous vs. sequential childhood bilinguals.** Simultaneous and sequential bilinguals are classified in regards to the order of acquiring two languages. These terms are usually used to describe childhood bilingualism. Simultaneous bilinguals refer to those who acquired two languages at the same time from birth by simultaneous exposure to two languages; it is also called infant bilingualism (Butler & Hakuta, 2004; Baker, 2011). In contrast, sequential bilinguals refer to those who acquire one language first and the other language later: Young children usually learn one language at home and learn a second language at a nursery and kindergarten without relying on formal education (Baker, 2011).

### **Second Language Acquisition in Infants**

Most research on early bilingual children is hard to generalize because there are a variety of complex variances or obstacles which are difficult to control in a perfect way, such as the timing of exposure to the second language, the way of two-language input provided and individual personality (Davison & Hammer, 2012; Wren, Hambly & Roulstone, 2012). For example, Davison and Hammer (2012) state that their study on development of 14 English grammatical morphemes in bilingual children is descriptive in nature, so their study results should not be generalized in any bilingual children.

Some previous studies showed that bilingualism was harmful to learner's cognitive ability claiming that learning a second language had negative effects on language processing (Baker, 2011). Saer (1923) argued that bilinguals were mentally confused and had a disadvantage in thinking (as cited in Baker, 2011); this claim was later shown not to be true because the

research had many problems such as defining key terms and research material.

Despite many benefits of balanced bilinguals, one of parents' big concerns about bilingual babies who are exposed to more than two languages is that one language may hinder the other language(s) leading to cognitive and emotional confusion as well as to messy or slow language development as researchers insisted in the 19th century through the 1960s (Meisel, 2004).

Much research on early bilingual children including infants in regards to SLA has been done. Many research results show that babies have great abilities to distinguish, store and develop two different languages. Baker (2011) states that babies have the capacities to differentiate two languages and to store them effectively to become successful simultaneous bilinguals. Furthermore, infants who have been exposed to two languages throughout pregnancy are already ready to become bilinguals as soon as they were born (Meisel, 2004; Byers-Heinlein, Burns, & Werker, 2010). Moon et al. (1993) argued that infants' listening experience regarding language during the last months of pregnancy can affect infants' discrimination (as cited in Werker, Byers-Heinlein, & Fennell, 2009)

### **Differentiation Two Different Languages**

It is necessary to investigate how bilingual infants separate and discriminate two different languages first in order to describe how to acquire two languages successfully. Unlike earlier studies focused on babies' language discrimination mainly in a monolingual environment, Bosch & Sebastián-Gallés (2001) examined bilingual babies. They demonstrated that 4-month old bilingual babies who were exposed to the phonologically close category, Spanish and Catalan, could discriminate them. Though it seemed difficult for babies to distinguish the two languages because of their rhythmic similarities, bilingual babies could discriminate the two

languages. In other words, their research demonstrated that 4-month old babies in simultaneous bilingual exposure can differentiate two different languages from very early on. Currently, the comparison of bilinguals and monolinguals in terms of differentiation of language systems has been a significant issue (Meisel, 2004).

Since Bosch & Sebastián-Gallés (2001), many researchers have found that newborns can discriminate two different sounds and they already have a bilingual acquisition before birth (Baker, 2011). According to Bilingual Babies (2013), Science Daily reported that 7- month old babies can distinguish two different languages in regards to each different grammatical structure, citing the research result from the University of British Columbia and Université Paris Descartes. In addition, it was reported that bilingual infants can distinguish English and Japanese by identifying different pitch and duration. Previous research showed that simultaneous bilingual infants who are exposed to two languages are able to differentiate two languages from very early on without obvious effort by demonstrating that newborns prefer a certain language which they heard when they were in utero (Byers-Heinlein, et al., 2010).

### **Development Two Different Languages**

Other research examines how early bilingual children including infants process and store two different languages. Research has shown contrasting results on how to deal with two languages. Some claim that early bilinguals have two different linguistic systems, others claim they have one unitary system dealing with two languages (Baker, 2011). Most research in the past reported that early bilingual children use the same unitary language system as monolingual children do. However, most current research does not support the old belief that early bilinguals use one unitary system. Instead, it is widely accepted that early bilingual children process each different language in a separate way.



Bilinguals have to learn roughly twice as much input as monolinguals do. It is likely to think that it would take twice as much time for bilingual babies to acquire two languages compared to monolinguals because of a mixed language input. Kovács & Mehler (2009) showed that 12-month-old simultaneous bilinguals are more flexible at learning, so the speed of their two language acquisition is similar to language acquisition of monolinguals. They explained that bilingual infants might acquire two languages through developing two different language inputs in a more flexible and efficient way while monolingual infants are acquiring one during the same period; bilingual infants process two languages separately without interference between the mixed language inputs.

Many studies have shown that bilingual infants develop two languages respectively as monolingual infants develop their language. According to Genesee (2001) bilingual infants develop two languages “both autonomously and inter-dependently” transferring partly from each other in certain language combination (as cited in Baker, 2011 ). Byers-Heinlein, et al. (2010) also claimed that bilingual babies acquired the two languages with the same perceptual and learning mechanisms as used when monolinguals acquire language in a monolingual environment. The simultaneous bilinguals acquire two languages as monolinguals acquire their first language. In other words, bilingual infants go through the same developmental stages as those detected in monolingual infants, respectively.

Studies have supported that bilingual infants develop two different languages as monolingual infants do in regards to English grammatical morphemes and morphosyntax. According to the previous research on the order of acquisition of English grammatical morphemes (Dale, 1980; Dulay & Burt, 1973, 1974) and rate of acquisition of English morphosyntax (Paradis & Genesee, 1996; Padilla & Liebman, 1975), bilingual and monolingual

children's English grammatical development showed almost parallel patterns (as cited in Davison & Hammer, 2012). Though these studies were not done for early bilingual children including infants and did not include necessary variances such as the timing and length of exposure to a second language during the preschool years, it is meaningful to provide information about bilingual children's grammatical linguistic development.

### **Disadvantages vs. Advantages of Bilinguals**

#### **Negative Effects of Bilinguals**

Viewpoints about bilinguals were historically different and influenced by language policy and the political and social climate. According to Baker (2011), there was a period between the 19th century and the 1960s when the negative effects of bilinguals were highlighted. The negative relationship between bilingualism and intelligence outweighed the positive relationship. Detrimental effects of bilingualism were focused based on the test results showing bilinguals have lower IQ scores than monolinguals do. Many methodological problems, such as defining and measuring IQ, were detected in this detrimental effect period.

Negative effects of bilinguals in regards to vocabulary development were also found in some previous research. Pearson, Fernandez and Oller (1993) reviewed previous studies on bilingual vocabulary development (Ben-Zeev, 1977; Doyle, Champagne, & Segalowitz, 1978; Rosenblum & Pinker, 1983; Umbel, Pearson, Fernandez, & Oller, 1992). Their research indicated negative and deficit effects of bilingualism. 7-year-old Hebrew-English bilinguals were 10 points lower on the Peabody Picture Vocabulary Test (PPVT) controlling for IQ (Ben-Zeev, 1971). Five-year-old bilinguals scored 26 points lower on the same test than monolinguals (Rosenblum & Pinker, 1983). However, Pearson et al. (1993) found out that bilingual infants between 8 and 16 months have the comparable ability as monolinguals have

for vocabulary comprehension; vocabulary productivity in bilingual babies between 14 and 30 months showed a lower mean percentile than monolingual counterparts, which was not statistically significant. In sum, there is no evidence to conclude that bilingual infants before 30 months old are slower than monolingual babies in regards to vocabulary development.

### **Benefits of Bilinguals**

Current studies show many strong benefits of bilinguals focused on the additive effects derived from different languages. Balanced bilinguals who possess two well-developed languages are likely to share each language's cognitive advantages and they have advantages in early metalinguistic awareness. According to Hakuta and Diaz (1984), balanced bilinguals have cognitive advantages over monolingual counterparts (as cited in Butler & Hakuta, 2004). For example, Peal and Lambert (1962) reported that despite concerns that two languages would be confusing, bilinguals showed more achievement over monolinguals in language tests thanks to bilinguals' superior metalinguistic awareness in solving linguistic problems which were derived from more diversified mental abilities (as cited in Bialystok, Craik & Luk, 2012).

Similarly, bilinguals have superior competence in dealing with mixed language input efficiently. Bialystok (1999) claimed that bilinguals have the advantages in control and selection abilities in regards to language learning compared to monolinguals. Bilinguals process mixed language inputs while monolinguals might struggle with the mixed input. Bilinguals learn two different languages efficiently at the same rate of monolinguals (as cited in Kovács & Mehler, 2009). Brito and Barr (2012) reported that 18-month old bilinguals have an advantage in memory generalization compared to monolingual infants. They explained that bilingual babies advantage in memory generalization is thanks to bilingual infants selection abilities to focus on a relevant stimulus without getting distracted by an irrelevant stimulus.

Bilinguals' great selection abilities were found in terms of phonology. Wren, et al. (2012) reviewed 260 studies on the development of phonemic awareness skills in bilinguals under the age of 18 years and found that bilingual children showed either similar or better achievement over monolinguals in terms of phoneme deletion, phoneme segmentation, isolation, blending and substitution. Goldstein & Bunta (2011) compared the phonological systems of bilingual children with those of monolingual children between 5.10 and 6 years of age. The research examined the accuracy and phonological pattern of bilinguals (English-Spanish) using the phonology subtest of the Bilingual English Spanish Assessment; the results showed that bilingual children have advantages over monolinguals in selecting phonological skills.

It was reported that bilinguals use more communicative strategies for specific context. Genesee et al. (1975) claimed that bilingual children tend to be more communicative sensitive than monolingual children while bilinguals may be more sensitive to the needs of other persons and respond properly according to their needs in their social context (as cited in Baker, 2011). Two year old or earlier bilingual children use two languages appropriately in the context they are in. Though there is individual variation, early bilingual children switch their two languages properly according to whom they are interact with (Deucher & Quay, 1999, 2000; Deucher & Quay, 2000, as cited in Baker, 2011). In other words, bilinguals are able to choose more appropriate language based on the context they are interacting in, so they possess extra communication tools and strategies compared to monolinguals.

Benefits of bilinguals are not confined to language learning and use. It was noted that bilinguals have advantages in regards to creative and critical thinking compared to monolinguals. Pavlenko (2005, 2011) stated that learning a second language not only makes bilinguals linguistically competent, but also gives them very new insights and a unique

viewpoint of the world, which are not the same in monolinguals of either language (as cited in Baker, 2011). Bilingual children are likely to have more divergent and critical thinking, and greater linguistic creativity than monolinguals (Pearson et al, 1993). Similarly, Lieven (2012) stated that bilinguals are not just 'double monolinguals'. Bilinguals are those who own unique characteristics more than simply merging two monolinguals.

### **Conclusion**

There are many factors that affect infant and early bilingual children's language development. The factors may include children's individual factors such as individual personality, language competence and metalinguistic abilities, peer interaction, the way their parents provide two-language input at home, exposure to two languages and sociolinguistic factors like the norms of values of the society to which they belong (Nicoladis and Genese ,1997, as cited in Baker, 2011).

Nothing is more important than parents' role to raise bilingual or multilingual children. Special attention and continuous effort to their children are needed. According to Lundén and Silvén (2011), almost all intermarried couples in North European countries where bilingualism is valued want their children to be bilingual or multilingual. However, it is challenging for parents to raise bilingual children because parents should put forth persistent and consistent effort to balance various needs in given contexts. Sometimes couples struggle with pressure about their identity in cases when they use a minority language.

The benefits of bilinguals over monolinguals are particularly shown in the case of balanced bilinguals (Baker, 2011; Butler & Hakuta, 2004). If parents want to raise balanced bilingual children, they should pay attention to aspects affecting their children's language development and provide the best environment. Lundén and Silvén (2011) emphasized the

importance of parents' balanced interaction with their infants to promote infant language development including expressive and productive vocabulary size.

Learning another language does not simply mean learning additional linguistic knowledge and socio-cultural experiences. Bilinguals have their own characteristics instead of having two different characteristics separately. Butler and Hakuta (2004) believed that bilingual children have their own unique linguistic, cognitive, and socio-cultural characteristics which are different from those of monolingual children. Language is used as a main representative of one's identity (Baker, 2011). Therefore, it is regarded as valuable to pay special attention to bilingual children's individual identity in regards to language acquisition so that they might have more positive identity focusing on benefits of bilinguals.

Given that increasing multi language users exist in the world, more attention needs to be paid to effective and fair language policy to enjoy the benefits of bilinguals and bilingualism. Especially, parents who want to raise their children in bilingual environments should not worry about providing two or more different language inputs. Instead, parents should keep in mind that "Your baby is very equipped to keep these languages separate and they do so in remarkable ways" (Bilingual Babies, 2013).

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