Bilingualism influences on additional second language acquisition
ผลของภาวะสองภาษากับการรับภาษาที่สองอื่นๆ

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Abstract

The purpose of this article is to present the result of bilingualism on third language acquisition or additional second language acquisition. The researcher gathered the bilingualism consequences from the studies in various dimensions. The distinct perspectives include language competence, communication, cognition, brain system, and metalinguistic awareness. The article demonstrates both positive and neutral influences on new language learning. It is to understand and to perceive bilingual language learners' conditions which involve numerous factors. The article would start with the aim and importance, theories, influences of bilingualism on language competence, its effect on metalinguistic awareness, cognition and brain system, and neutral influences of bilingualism.

Keywords: Bilingualism, language acquisition, third language, additional second language

บทคัดย่อ

จุดประสงค์ของบทความนี้คือการแสดงให้เห็นถึงภาวะสองภาษาว่ามีผลอย่างไรต่อการรับภาษาที่สามหรือภาษาที่สองอื่นๆ ผู้เขียนได้รวบรวมผลการวิจัยเกี่ยวกับผลของภาวะสองภาษาในหลายแง่มุมด้วยกัน ได้แก่ ความสามารถทางภาษา การสื่อสาร การเรียนรู้ ระบบการทำงานในสมอง และความตระหนักรู้ในรูปแบบโครงสร้างและการใช้ภาษา ผลของภาวะสองภาษามีทั้งเป็นผลในแง่บวก และไม่มีผลต่อการรับภาษาใหม่ อีกจุดประสงค์หนึ่งของการเขียนบทความนี้ก็คือ การทำความเข้าใจผู้ที่พูดได้สองภาษากับการเรียนรู้ภาษาเพิ่มเติม ได้เข้าใจสภาวะและปัจจัยอื่นๆที่มีผลต่อการรับภาษาใหม่ เนื้อหาในบทความประกอบไปด้วย เป้าหมายและความสำคัญของการศึกษา และทฤษฎีต่างๆ ผลทางบวกของภาวะสองภาษากับความสามารถทางภาษาใหม่ ความตระหนักรู้ในรูปแบบโครงสร้างและการใช้ภาษา การเรียนรู้และระบบการทำงานในสมอง และผลสรุปอิทธิพลของภาวะสองภาษาที่ไม่มีผลต่อการรับภาษาที่สาม

คำสำคัญ: ภาวะสองภาษา, การรับภาษา, ภาษาที่สาม, ภาษาที่สองอื่นๆ

Introduction

The purpose of this article is to deal with how bilingualism becomes a factor and condition on third or additional second language acquisition. It introduces new perspectives and alternative ways of learning and teaching a new language to bilingual students. The studies were gathered from previous studies until present day. It is to investigate the change and development of the main topic of research in each period. Furthermore, the result of being bilingual on a third language or an additional second language acquisition in both positive and neutral aspect will be discussed in this paper.

Language acquisition is the process that persons gain the ability to speak, understand, read and write a specific language. They also have the capacity to choose the correct words, produce words, and use sentences to communicate fluently. It contains grammatical rules, structures, and representation. To communicate in one language, a person needs to receive and understand phonology, morphology, syntax, semantics, and an extensive vocabulary. By perceiving them, individual could produce endless number of sentences in their lifetime even though the grammar rules are limited. There are three mechanisms that acknowledge persons used to acquire a language; namely relativization, complementation and coordination (Lightfoot, 2010).

Bilingualism is a state of being able to speak and understand two languages. This condition can be considered as a continuous and related mode. Bilinguals could have diverse levels of competence in two languages. Moreover, these abilities to communicate in one language which are composed of speaking, listening, reading, and writing skill could be separated into various levels. For example, a bilingual may be highly proficient in one or two skills and limited in other skills. Additionally, they might be more fluent in one language than the other. Defining bilingualism is sophisticated since it is influenced by numerous factors including the age of second language acquisition, frequent use of the first language, and skills in each language (Grant & Gottardo, 2008).

This article focuses on bilingualism effects on cognition which is a process that humans acquire knowledge and understand it through their senses, experiences, and thought ("Cognition - definition of cognition in English from the Oxford dictionary," n.d.). Metalinguistic awareness area is also discussed. It is a set of numbers of skills namely phonological, morphological, syntactic and lexical awareness which involve the formal perspectives of a language (Bialystok et al., 2014). As stated by Ramirez et. al (2013), the definition of metalinguistic awareness is capability to produce and shape the language structure by dissociating oneself from the content of the talk. Moreover, focusing on metalinguistic awareness, language learners need to focus on forms and structure of a language to create basic linguistic knowledge then develop them later (Duncan et al., 2009).

Positive Influences of Bilingualism on Language Competence

In terms of its effect on L3 or additional second language, bilingualism plays an important role and has been a focused area of a study of new language acquisition. Large numbers of research consistently shed light on the comparison between monolinguals, persons who can speak and understand only one language, and bilinguals, participants who have ability to communicate in

two languages, on their capability to acquire a new language. Abundance of studies concluded that bilinguals have an advantage on new language learning when they learn languages in context and gain literacy skills in both languages (Cenoz & Genesee, 1998).

Cenoz and Valencia (1994, as cited in Jordà, 2003) stated that the effect of bilin gualism is greater than the influence of other factors such as age, intelligence, and motivation. Add itionally, because of previous language acquisition experience that changes the quality of language learning, the development of a third language (L3) obviously differs from that of a second language (L2) (Jessner, 1999). Wrembel (2010, as cited in Hiromi, 2016) revealed that the knowledge of L2 especially affects L3 development throughout the initial period. In the same way, Astaneh and Keshavarz (2004) stated that when bilinguals have learned the first two languages appropriately, there is a more positive effect on the acquirement of L3's vocabulary compared to monolinguals. Furthermore, Hiromi (2016) suggested that phonological recognition in L3 is influenced by L2 capacity. To perceive the L3, participants use their sound pattern knowledge from the first language (L1) and L2, perceptual skill in the L2, and total foreign-language-learning experiences. Monolingual students tend to acquire words in a new language by writing, whereas bilingual students apply listening and speaking skills to receive a new language (Grenfell & Harris, 2015). Moreover, exploring pragmatic awareness, bilingual subjects have an advantage over monolingual subjects (Jordà, 2003).

In 2010, Abu-Rabia and Sanitsky claimed that new language acquisition relies on knowledge of a number of languages with their own conventional spelling systems. Similar to Abu-Rabia and Sanitsky (2010), Kemp (2007) who pointed out that multilinguals are able to embody grammatical rules in a new language more quickly than learners with less language experience due to their understanding of multiple grammatical systems. According to Cummins (1991), bilinguals could are capable of transferring their language ability from L1 to apply in L2 and also be able to transfer these skills from their first two languages to a third language. Furthermore, monolinguals might use only their base language (L1) in L3 learning; in contrast, bilinguals are able to apply L1 and L2 as base languages (Cenoz, Hufeisen, & Jessner, 2001).

In terms of proficiency, the significance of proficiency was found in Tremblay's (2006) study, which focused on L3 vocabulary pro duction and L3 acquisition. She demonstrated that proficiency in the second language in fluences the degree to which L2 was stimulated during L3 production. There is an assum ption that first language and second language proficiency affects learners in order to produce a new language. Learners who have a high proficiency level in the second language would achieve higher levels of competence in a third language (Lasaga baster, 2000; Sanz, 2000). Moghtadi1, Koosha1 and Lotfi1 (2014) supported this assumption with the in inspection of the connection between the level of grammatical proficiency in the second language and the third language in bilinguals. The participants in this research were 100 Iranian female high school students who studied in the second grade from two educational districts of Tabriz. All students had in the same English proficiency level, sex and age. Moreover, they studied in a public schools in which the same materials were used, and the number of hours in class was similar. Persian and English gramma

tical proficiency test were employed in this study. The results showed that there was a significant correlation between second language grammatical proficiency and third language grammatical proficiency. Thus, the hypothesis that bilinguals' L2 grammatical competence level influences the level of grammatical proficiency in L3 has been confirmed. Lastly, to compare bilinguals and monolinguals in terms of communication, bilinguals who are learning L3 tend to apply more communication strategies on the conversation than monolinguals. (Thomas, 1992).

Bilinguals are person who have new language acquisition experience and came across acquirement and production of the new language. Therefore, they could adopt language learning abilities to achieve the new one. The abilities include acquirement and production of voca bulary, sound pattern, pragmatic awareness, spelling system, and grammar rules. Moreover, bilinguals might have advantages by employing their first and second language as base languages to learn a third one. Level of proficiency of individual in L1 and L2 also affects a person's third language learning abilities. In addition, bilinguals who practiced and used two languages to communicate in society could adopt their previous communication strategy to receive and produce the third language. Furthermore, Cenoz (2003) stated that the studies on L3 acquisition revealed that bilingualism is one of the main factors; nevertheless, this influence may not be the most vital component. The bilingualism effects on cognition might explain the particular consequences of bilingualism in L3 deve lopment. These factors describe more about the influences on regular skills in L3 learning than the consequences on certain factors of language ability. Therefore, a large number of individuals and external circumstances should be considered; more different perspectives depending on the effects of bilingualism and other language learning elements should also be investigated. Many questions are in need of answering in future studies.

Bilingualism Effect on Metalinguistic Awareness, Cognition and Brain System

In the past twenty years, bilingualism influence on metalinguistic awareness, learning process and brain system has been discussed in a large number of studies. Jessner (1997) claimed that bilinguals have cognitive skill supremacy, e.g., creative thinking and metalinguistic awareness over monolinguals in L3 learning. Supported by Malaoff (1992), metalinguistic awareness is potential to think conceivably and adapt language in use, i.e., an awareness of formal linguistic functions of language and ability to reflect a language. It allows individuals to know how to approach and solve problems which require specific cognitive and linguistic skills. In terms of metalinguistic awareness, it is one of the factors that contribute to expedite L3 acquisition. The development of metalinguistic awareness between monolingual and bilingual children was investigated by Cummins in 1978. The analysed data revealed that bilingual children were better able to perceive particular properties of language than the monolingual children, and they tend to have more ability to analyse and accommodate to linguistic input. There was also a study by Thomas (1988) which revealed the correlation between multilingualism and metalinguistic awareness. According to his study, it revealed that trilinguals, a person who could speak fluently in three languages, had a concentrated metalinguistic awareness compared to monolingual and bilingual. The result might be inferred that the more number of fluent language,

the more effect on a new language acquisition.

Focusing on brain system, as indicated in Zou et al. (2012), L2 experience could change the brain network in monolinguals. Considering discourse, bilinguals must observe and select the relevant language to communicate. A word of the non-target language may interrupt, and cross-language speech errors could possibly emerge. This common phenomenon indicates that words from two different languages challenge one another in bilingual brain. The undesired influence between languages might be classified as ''language conflict''. The study showed a combined functional and structural neuroimaging of anterior cingulate cortex (ACC), a particular place to control language and solve nonverbal conflicts. Bilinguals employ this structure to observe non-linguistic cognitive conflicts more efficiently than monolinguals. In a struggling situation, bilinguals adapted better than monolinguals by using less ACC activities. The results suggest that acquiring and practicing of two languages at the same time apply a significant effect upon human neocortical development. The bilingual brain modifies to solve cognition conflicts in major-common cognitive task. In addition, neuroimaging that has been recorded during language processing supports that the brain of bilinguals changes to be more flexible and productive in certain states.

In terms of cognition, the general con sequences of bilingualism on cognition and two lingu istic systems tend to influence L3 acquisition (Herdina & Jessner, 2002; Cenoz, 2003). Bialystok and Kroll (2013) also suggested that two linguistic experiences in bilinguals influence both linguistic processing and nonverbal cognitive processing. The collective activation of the two languages governs reorganization of both linguistic and cognitive systems. Therefore, bilingualism affects language acquisition differently than mono lingualism. Linguistic and cognitive consequences of bilingualism are the restructuring of complex mental structures as a result of a specific linguistic experience. They are intimately interconnected and jointly interdependent. Moreover, Herdina & Jessner (2000) claimed that acquisition of L3 or further languages improves cognitive skills namely learning, management, and maintenance processes. Language-learning skills point out cognitive aspect of the competence. First of all, experience of the previous learning process in L2 or a foreign language accelerates development of a further language. Second, language-management skills are the art of using language to balance the need of conveyance or information exchange. Learning an additional language influences the extension of language and individual internal processing mechanism. Lastly, language-main tenance skills imply an extra effort to retain and refine the known language.

By studying numerous researches about impact of bilingualism on metalinguistic awareness, it could be concluded that ability to speak two languages improves thinking and language using skills. Bilinguals are able to consider and interpret a new linguistic system to acquire the language more rapidly than monolinguals. The study of brain system impacting by bilingualism was also the discussed. The result was shown that being able to speak and to understand two languages affects the particular part in the brain which has been changed to be more adaptable and effective to receive a new more language. Furthermore, bilingualism influences learning process by accelerating the improvement of new language learning, management, and maintenance processes. The positive influences on new language

acquisition by bilingualism were shown in various fields of study former parts. In the next section, the neutral effect of bilingualism on acquirement of a third language would be shaded light on.

Neutral Influences of Bilingualism

To further study on L3 skills development, Sanders and Meijers (1995) focused their study on language abilities, grammatical judgment, impulsive language use, word understanding, word building and word recognition, while the other factors such as socioeconomic status and intelligence were controlled. No remarkable differences were found between monolinguals and bilinguals. The advantages of bilingualism might not show all aspects of metalinguistic awareness. In fact, only some specific areas related to high levels of attention were observed (Bialystok, 2001). There is no evidence on how the range of a language process impacts on the recorded cognitive and neural effects (Bialystok & Luk, 2013). Puerto (2007) also claimed that "level of bilingualism" has no significant consequence on L3 acquisition skill. He studied sixty primary and secondary school Spanish-Basque bilinguals to investigate the level of bilingualism on L3 learning. The students were separated into two groups based on their proficiency level in a second language. The researcher adapted auditory discrimination test to collect data on English phonemes understanding. The result appeared that the level of competence in L2 did not have positive influence on phonological performance in L3 learning.

Additionally, the number of languages that a person could speak may not affect new language acquisition. Gibson, Hufeisen, and Libben (2001) found dissimilarity between monolinguals and multilinguals on new language acquisition. By examining German language learning as L2, L3, or L4, the findings revealed statistical differences among groups. The mixed results were caused by two major factors: a limit of few areas of language learning and the research techniques. In the same year, Okita and Jun Hai (2001) indicated that to receive a new language, learners might not rely on the number of previous language experiences. To learn Japanese language as a new language, monolingual Chinese speakers were compared with bilingual Chinese-English speakers. The results showed that monolinguals obtained higher scores than bilinguals in terms of new language acquisition. In this case, monolinguals may have more ability to develop a new language than bilinguals because of the familiarity with the writing system of their first language (Chinese) and a target language (Japanese).

Another approach that showed the neutral effect of bilingualism on L3 is interlanguage transfer, the influence of non-native language on another non-native language. The findings revealed that both L1 and L2 could dominate or play a stronger role in interlanguage pro duction, and there was no significant dissimi larity. In the area of phonology, it showed that L1 is base accent in their speech while learning L3, at least in intonation. In contrast, L2-transfer is relatively limited. L3 learners might make use of L1-based discourse patterns which are presented in their writing while the degree of L2-transfer diverges in grammar. Psychotypological relation between second language and third language has an influence on the transfer of phonology and grammar from L2 to L3. In other words, the means in which learners perceive differences and similarities between L2 and L3 influence L3 learning (Gibson, M., Hufeisen, B., & Libben, G., 2001).

Considering young bilinguals, mo nolingual children could understand new words which include minimal consonant contrast with novel-shapes at the age of seven months, and bilingual children were capable of the same at twenty months of age. This result points out that in terms of word learning, bilingual children delay in the capability to employ phonetic contrasts (Fennel, C.T., Polka, L., & Werker, J., 2002). Oller, Eilers, Urbano, and Cobo-Lewis (1997) also found that both monolinguals (English children) and bilingual (English-Spanish children) with approximately 27 weeks old share similar canonical babbling. Another research conducted by Polka and Sundara (2003) demonstrated that at the age of seven, French-English bilingual children have ability to differentiate words from continuous speech in two languages. The result was the same in monolingual children. Moreover, Maneva and Genesee (2002) investigated feature of babbling, such as syllable structure (e.g., open syllables and closed syllables) and utterance length in 10-15 months old children. The data revealed that there are correspondence patterns in both a monolingual French and English child and a French-English bilingual child. To examine language used in communication, Genesee and Nicoladis (2006) pointed out that bilingual and monolingual children confront similar communication challenges. These struggles include production of target language that needed to be understood by listener, comprehending meaning of words in incomplete speech, and the language choice in various social situations.

In addition, Grant and Gottardo (2008) indicated that it is not confirmed that bilingualism always has a positive effect on third or additional second language acquisition. There are various variables, namely, sociolinguistic context, socioeconomic factors, and socioe ducational factors. In addition, to acquire a new language is a complex phenomenon and mainly influenced by numerous circumstances both individual and contextual. As reported by Sanz (2000), the number of involved factors and multiple interactions are multiple components in the contexts which affect additional second language learning in bilinguals. These make new language acquisition a remarkably complex phenomenon. Since there are multiple factors occurring when a person learning a new language, researchers currently focus on and investigate distinct perspectives in this field of study.

The studies in this component revealed the alternative effects of bilingualism on new language learning. They showed that level of skills in L2, number of languages which a person could speak, and diversity of age might not play an important role in acquirement of a third language in bilinguals. The research results demonstrated that bilinguals might not have an advantage of language acquisition experiences to develop their language abilities, grammatical judgment, impulsive language use, phoneme and word understanding, word building, and word recognition. In addition, monolinguals tend to perceive a new language more rapid than bilinguals if there is familiarity between their first language and a target language. Lastly, young bilinguals also were subjects to study in numerous researches. The studies of word differentiation, canonical babbling, and communication struggles in young children with different age showed the dissimilar results of language acquisition.

Conclusion

Research on bilingualism has constantly increased in the last decades since numberless

world citizens are living in a multilingual envi ronment at present. In the former parts, the various findings are discussed that fields of study on a third language or an additional second language learning which are affected by bilingualism. As indicated in the contents section, the results of bilingualism on language ability, communication, cognition, brain system, and metalinguistic awareness are complicated issues. It is not completely confirmed that having ability to speak and understand two languages results in more proficiency in new language acqui sition in bilinguals. There are also supplementary variables that play an important role on new language acquisition. The studies presented in this paper provide beneficial contributions to a better understanding of the components and conditions that have influences on L3 or additional second language learning.

The study on additional language acquisition requires more exploration and a deeper level of investigation. It is recommended that further studies examine different methodological practices, limitations, research techniques, and other linguistic and sociological circumstances that might affect the results of the language acquisition study. Furthermore, alternative factors to learn and perceive a new language among bilinguals including sociolinguistics, pragmatics, socio-cultural variables, socio-economics, sociolinguistic context, socioeconomic factors, and socioeducational factors could be diverse fields of study in future research. Ultimately, the findings of bilingualism impact on additional second language acquisition could be developed and adapted to other fields of study such as language practicing and teaching.

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