THE INFLUENCE OF BILINGUALISM AND BILINGUALITY ON HUMAN BEHAVIOR: SECOND LANGUAGE ACQUISITION, COGNITIVE DEVELOPMENT AND LANGUAGE USE IN SPEECH COMMUNITY

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Abstract
Bilingualism and bilinguality are an integral part of human behavior. This paper, based on a library research, indicated that bilingualism and bilinguality have beneficial impacts on second language learning, cognitive development, and language use in speech community. The first impact was on the second language learning fueled by both integrative and instrumental motivation. The second one was on the learners’ cognitive development. Many research works found that bilingualism and bilinguality improves the learners’ control of their cognitive function, with wider experience and better performance because they operate in two languages, and greater flexibility and greater facility in concept formation. The third impact was on the use of languages in speech communities. In any society, language is seen as a symbol and instrument that usually leads to valorization. Bilingualism and bilinguality might benefit the society with additive bilingualism, or, if not managed carefully, they might lead to subtractive bilingualism and subsequent language death.

Keywords: bilingualism, bilinguality, SLA, cognitive development, language use, speech community, valorization.
A. Introduction

Why do people want to learn another language? What is the drive? What is the goal? It is widely known that establishing communication with other people is one of the natural characteristics of human beings. In some cases, this includes learning (an)other language(s), especially in societies where more than one language are used in interaction. As the world ‘shrinks’ due to the global communication, ‘the interaction is often carried out through a speaker’s first, second, third, or even fourth language’ [2]. Reference [2] further referred to [10] claim that approximately two-third of the world’s children grow up in a bilingual environment, which in turn, leads to adult bilingualism or multilingualism. The goal of the quest to learn other languages is be able to communicate with other people. In the linguistic term, this is known to be a bilingual.

B. Method

This paper was aimed at describing bilingualism and bilinguality as an integral part of human behavior; that they influence the second language acquisition, the bilingual’s cognitive development, and the usage of language in its speech community. Using a library research as the basis of the findings and discussion, this paper relied much on the works of researchers, the description of bilingualism and bilinguality as an integral part of human behavior. This paper elaborated on how bilingualism and bilinguality influence second language acquisition, followed by how bilingualism and bilinguality relate to bilingual’s cognitive development and the usage of the language learned in its speech community.

C. Results

Many research works about bilingualism and bilinguality have been conducted by many experts, but some questions still linger. What is meant by being bilingual? What is bilingualism and how is it different from bilinguality? Bilingualism and bilinguality have been defined in many ways according to the perspective of the experts using the definitions in their research works, but still there is no agreement among those experts on the definition of bilingual, bilingualism, and bilinguality. It seems that their definitions change
through times and tend to be more ‘open’ and ‘inclusive’.

Reference [6] offered a definition of ‘bilinguals’ as individuals who have ‘native-like control of two languages’. This definition is quite limiting for many as there are many people, let’s say in Indonesia, who are able to read and comprehend utterances in English but have difficulty in speaking and writing in it. Can’t we categorize them as ‘bilinguals’ as well? Perhaps a definition by [15] gives a better picture. He defined ‘bilinguals’ as individuals who are fluent in one language but who ‘can produce complete meaningful utterances in the other language’. A definition by [21] accommodates wider groups of people who could be categorized as bilinguals. They defined ‘bilinguals’ as ‘individuals or groups of people 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’. With English in mind, this definition is in line with the increasing recognition of the existence of the so-called World Englishes, i.e. the range of different varieties of English that have been developed since the nineteenth century [19].

The existence of bilinguals assumes that there are two or more languages in contact or used in the society where these bilinguals belong to. Reference [17] defined ‘languages in contact’ as ‘the use of two or more codes in interpersonal and intergroup relations as well as the psychological state of an individual who uses more than one language’. This leads to the definition of the second term, bilingualism. Reference [7] offered the following definition: ‘Bilingualism can be defined as psychological and social states of individuals or groups of people that result from interactions via language in which two or more linguistic codes (including dialects) are used for communication’. Reference [7] distinguished the two terms as follows.

“Bilingualism refers to the state of linguistic community in which two languages are in contact, with the result that two codes can be used in the same interaction and that a number of individuals are bilingual (societal bilingualism)”. While “bilinguality is the psychological state of an individual who has access to more than one linguistic
codes as a means of social communication; the degree of access will vary along a number of dimensions which are psychological, cognitive, psycholinguistic, social psychological, social, sociological, sociolinguistic, sociocultural and linguistic”.

Thus, to put it in a nutshell, bilingualism is more on the societal level, while bilinguality is more on individual level.

The concepts of bilingualism and bilinguality are closely related to human behavior in any given society. People living in a bilingual society tend to learn the language other than their mother tongue. The driving motivation might be integrative, i.e. in order to participate or communicate with other members of the society, and/or instrumental, i.e. to get the concrete benefits that learning the second language might bring about.

Bilingualism and bilinguality are also closely related to bilingual’s cognitive development. Many research works’ findings have shown that bilinguals are better than monolinguals in terms of cognitive development:

- bilinguals outperform monolinguals in cognitive control of information processing [3], [4].
- bilinguals scored higher than the monolinguals on tests of verbal and non-verbal intelligence [22].
- more balanced bilingual children scored higher on non-verbal intelligence tests [16].
- bilingual children probably develop special reflective skills which generalize to other meta-cognitive processes [21].

Some other research findings only confirmed the notion that bilingualism affects bilingual’s cognitive development. Reference [5] found that bilinguals show more dominant executive control in non-verbal tasks requiring conflict resolution. Reference [8] found that native bilingual children demonstrated better performance on a battery of executive functions tasks compared to their late bilingual and monolingual counterparts. Reference [18] also emphasized on the benefits of being bilinguals in terms of ‘vocabulary and grammatical development’. She said bilinguals are equal or exceed
monolingual children on vocabulary and grammatical development.

Bilingual development takes place in a society where there are ‘languages in contact’ [17]. This society provides speech communities that may enhance or diminish bilingual development. Language behavior and language attitude of the given speech community determine the development of the languages in the community as well as the development of the bilinguals.

The definition about bilingualism and bilinguality offered by [17] above reflects the real situation of many bilinguals living in many bilingual communities. Let’s take the example of Indonesia where many people are actually bilinguals as most of them have mother tongue other than the lingua franca, Indonesian; even in many communities, Indonesians also have access at least to one other foreign language, for example English, Chinese, Japanese, to name some. They learn other linguistic codes in order to use them in interaction as a means of communication in their speech communities. This learning activity is known as second language acquisition and the goal is usually driven by integrative motivation (to interact in their speech communities) or instrumental motivation (to get a job or position using the language learned).

Reference [13] claimed that the motivation of learning the second language, in its turn, greatly affects the second language learning behavior. A motivated individual tends to create and employ more learning strategies. Highly motivated learners used more strategies relating to formal practice, functional practice, general study and conversation elicitation than poorly motivated learners [13]. Thus, motivation and learning behavior determine the success or failure of second language acquisition. In the same vein, [12] suggested that ‘Motivation provides the primary impetus to initiate learning in the L2 and later the driving force to sustain he long and often tedious learning process...Without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricula and good teaching enough on their
own to ensure student achievement.’

Empowered by high motivation and positive learning behavior, the process to be bilinguals is then, easier. When a second language learner acquires the language, it is said that the learner achieves bilingualism. From psychological point of view, the process of being bilingual and the state of bilingualism affect the learner’s cognitive development. Not only do bilinguals get benefit in language development, but bilinguals also get benefit in their cognitive development. Reference [28] stated that “language plays an essential role in cognitive development, at least from the time the child has attained a certain level of language competence. Language, first developed as a means of social communication, is later internalized and becomes a crucial tool in the shaping of cognitive processes relevant for the elaboration of the abstract symbolic system which will enable the child to organize thought”

Reference [28] traced back to the very beginning when a child learns his language competence, learns to express his mind in a language, and tries to communicate with other people. It is also the beginning of his cognitive development when the child begins to develop his metalinguistic awareness as a base of his cognitive development. Vygotsky stated further that this awareness may be generalized into other concept areas of learning and thinking. When this process is conducted in more than one language, the result is even better. Quoting [26], [17] stated that ‘bilinguals have better ‘mental calculus’ which enables them to alternate between two systems of rules in manipulation of symbols (p. 85).

Not only [28] and [26], other researchers also found that bilinguals experience better cognitive development than their monolingual counterparts. [3] in one of their research works found that bilinguals outperform monolinguals in cognitive control of information processing. Even earlier, [22] conducted a research and found that bilinguals scored higher than the monolinguals on tests of verbal and non-verbal intelligence. Greater mental flexibility and a greater facility in concept formation is the main factor of the higher scores of the
bilinguals on intelligence measures. This finding also demonstrates the positive effect of bilingualism on cognitive development. In the same vein, [16] in their study of Spanish–dominant bilingual children found that more balanced-bilingual children scored higher on non-verbal intelligence tests. In the same year, Reference [21] found that bilingual children probably develop special reflective skills that generalize to other meta-cognitive processes. These skills empower the children to have more control on their cognitive function as to use it more effectively. Therefore, [21] concluded that bilingual children are better learners.

Bilingual development is closely related to the speech community where ‘languages in contact’ take place. Bilingualism emerges when two different language communities come into sustained contact [14]. The immigrant families in the United States are often cited as the perfect example of bilingualism, the impact on the minority language. The speech community is then shaped by language behavior of the users of the languages and the language attitude towards the languages used. Language cannot be separated from its culture, therefore bilingual development also has to do with the way speech community members influence their culture.

D. Discussion

In this section, bilingualism and bilinguality as an integral part of human behavior will be elaborated. The elaboration starts with the description of how bilingualism and bilinguality influence second language acquisition, followed by how bilingualism and bilinguality relate to bilingual’s cognitive development, and the last part, how bilingual development and behavior relate to the speech community.

**Bilingualism and bilinguality are an integral part of second language acquisition.**

People learn to acquire a language other than the mother tongue with different motivations: integrative motivation (to interact with others in their speech communities) or instrumental motivation (to get a job or position using the language learned). This activity is termed as second language acquisition. Reference [13] used the term ‘second language acquisition’ to refer to the acquisition of any language after the acquisition of the
mother tongue, regardless of the types of learning (second language learning and foreign language learning).

Second language acquisition is the process of being bilingual (acquiring another language). This is true, for example, in the context of Indonesia. Some Indonesians were raised in Indonesian as their mother tongue, with many others were raised in their local languages and then acquired Indonesian when they were at their early school years. Basically, most Indonesians are bilinguals already, following definition offered by [13]. As second language acquisition is also used as an overarching term to cover both second and foreign language learning, Indonesians also learn foreign languages, such as English, Chinese, Japanese, Korean, French. The learning process may be formal and conscious at schools, which is usually compulsory for the students, or voluntary as needed by the learners. Many operators offer private lessons. Once again, the goal of learning foreign languages is also to be bilingual.

Second language acquisition is usually powered by motivation. Following [12], [1] and [13], motivation is categorized into two: integrative and instrumental motivation. Integrative motivation refers to the intention to be part of the speech community of the language. For example, Indonesians learning English to be part of English-speaking society in Indonesia which most people view as educated society. Reference [1] stated ‘learners sometimes want to affiliate with a different language community’. Such learners wish to join in and identify with the minority or majority language’s cultural activities, and consequently find their roots or form friendships’. Instrumental motivation refers to learning a language for useful purpose, i.e. to find a job and earn money, further career prospects, pass exams, help fulfill the demands of their job, or assist their children in bilingual schooling.

Reference [1] stated further that these two motivations are actually intertwined and cannot be separated rigidly. For example, most Indonesians learning English have the two of the types of motivations. They want to be part of English-speaking society, able to read English publications, able to have access to many English-language resources, and they want to secure employment as many job
vacancies put English proficiency as one of the requirements. Even though many of them will not use English actively in their everyday work (as they work in Indonesia, for Indonesian employers, with Indonesian co-workers, and in Indonesian), English proficiency is viewed as a must-have ability. Perhaps, this has to do with the integrative motivation, becoming the ‘member’ of educated society.

What is the result of second language acquisition then? A successful language learner then can be characterized as having access to more than one language (linguistic code) as a means of communication. This is what is called as ‘bilingualism’ [17]. So, in general it can be said that the objective of second language acquisition is to be bilingual. Reference [9] stated that many research works already witnessed some shift away from conceiving the successful language learner as one who operates only monolingually in the new language towards an appreciation of bilingual identity. After all, ‘the goal of second language acquisition is bilingualism’ [25].

Being bilingual is also characterized by possessing language competence, which should not be limited into linguistic competence only. Reference [1] reiterated this by quoting [27] six different forms of language competence to be acquired for communication purposes: linguistic, sociolinguistic, discourse, strategic, social-cultural and social competence. The details of each competence are presented in Table 1 below.

Table 1 Van Ek’s six forms of language competence

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<th>No.</th>
<th>Competence</th>
<th>Description</th>
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<tr>
<td>1.</td>
<td>Sociolinguistic competence</td>
<td>The ability to communicate accurately in different contexts, with different people, and when there are different intentions in the communication; the ability to use appropriate strategies in constructing and interpreting different texts, the ability to contribute to</td>
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<td>No.</td>
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<tr>
<td>2.</td>
<td>Discourse competence</td>
<td>The ability to use appropriate strategies in constructing and interpreting different texts, the ability to contribute to the construction of a spoken discourse in communication.</td>
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<td>3.</td>
<td>Sociocultural competence</td>
<td>The ‘awareness of the sociocultural context in which the language concerned is used by native speakers and the ways in which this context affects the choice and the communicative effect of particular language.</td>
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<tr>
<td>4.</td>
<td>Strategic competence</td>
<td>The ability to use verbal and non-verbal communication strategies to compensate for gaps in the language user’s knowledge.</td>
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<tr>
<td>5.</td>
<td>Social competence</td>
<td>The ability to use particular social strategies to achieve communicative goals.</td>
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Apart from the language competence as the outcome of second language acquisition, [1] identified important non-linguistic outcomes from second language learning (acquisition) such as change in attitudes, self-concept, cultural values and beliefs. For example, the learning of a second language and the act of becoming bilingual may change attitudes of an Indonesian who might be more open and appreciative towards Indonesian and English, be more confident, and have more awareness and appreciation of cultural differences. Reference [1] stated
further that having mastered a second language and being able to interact with a different language group may change one’s self-concept and self-esteem.

The process to achieve bilingualism is not always perceived as positive by language experts fearing language deaths in many societies. It has to do with valorization of certain language, usually the language used in wider communication. In relation to this, [1] differentiated ‘additive bilingualism’ from ‘subtractive bilingualism’. Additive bilingualism occurs when a second language is learnt by an individual or a group without detracting from the maintenance and development of the first language. A context where a second language adds to, rather than replaces, the first language is important for bilingualism to flourish, while subtractive bilingualism occurs when a second language is learnt at the expense of the first language, and gradually replaces the first language. The latter is known to an early process of a language death.

Many language experts have long been concerned about subtractive bilingualism and have warned policy makers of the languages in danger as the impact of subtractive bilingualism. In Indonesian context, linguists have been very concerned about the diminishing ability of young Indonesians in using the correct and proper Indonesian in expressing their ideas both orally and in writing. It seems that Indonesian is losing its charms among young Indonesians, who have more pride in speaking broken Indonesian with some sprinkles of English chunks. This situation has been encountered in the last twenty years in the classrooms as well as in the society.

Bilingualism and bilinguality affect bilingual’s cognitive development

Bilinguals are better learners, [21] claimed. This is because bilingual children possess skills that empower them to have more control on their cognitive function as to use it more effectively. This is one of the benefits bilinguals experience from their being bilinguals (bilingualism). The learners who are proficient in English tend to show better knowledge and skills in other subjects, that is, they have higher scores in other subjects than the less proficient students. This fact is in line with the findings of a
work by [22], perhaps because bilinguals possess greater mental flexibility and a greater facility in concept formation that is the main factor of the higher scores of the bilinguals on intelligence measures.

There are also many findings of research work related to the benefits enjoyed by bilinguals in terms of cognitive development. The work of [21] paved way for many research works [11]; [3]; [16]; [4]. [5]; and [26]. All of them confirm the earlier findings that bilinguals get advantages in their cognitive development just because of their being bilingual.

Specifically, [11] claimed that bilinguals may have a wider and more varied range of experiences than monolinguals due to their operating in two languages and probably two or more cultures. Bilinguals have more access to publications, movies that gives them more experience, knowledge, and opportunity to know and learn from other cultures represented by the languages they learn. For example, an Indonesian-English bilingual might easily understand the news in English publications such as The Jakarta Post, watch international TV channels, and enjoy watching Hollywood movies without being hindered by the subtitles. An Indonesian-Japanese bilingual might easily converse in Japanese with her Japanese teacher confidently.

Reference [1], quoting [24], claimed that bilinguals may have advantages with performance components: ‘Having command of two languages leads to greater use of verbal mediation and increased use of language as a cognitive regulatory tool. Having two interlocking performance systems for linguistic codes gives double the resources for executing verbal tasks… Also there is greater use of learning strategies when learning two languages.’

This is true for the Indonesian English learners. Bilingual learners usually have more vocabulary arsenal to be used in communication. The more proficient they are the more vocabulary they have. Some of them might read the reading materials in Indonesian, but their being bilingual helps them convey the message more coherently. This enables them to deliver their thoughts better.
Bilingualism development and behavior are related to the speech community.

Bilingual development and behavior take place in the speech community that provides environment for them to interact. Without the speech community, no language ever survives, let alone develops. We witness many local languages in Indonesia, or maybe in other parts of the world, die down because there is no speaker of them. Bilingualism emerges when two different language communities come into sustained contact and it develops when people participate in day-to-day activities that require the use of the two languages [23].

In the speech communities, bilingualism has more than just a communicative value. Bilingualism has social value that enables bilinguals to build communication and interaction within both speech communities. For example, the children of Spanish immigrants in the United States are able to communicate with their family members in Spanish and interact with their peers at school in English. They get the cognitive benefits of bilingualism: more control of their cognitive function, wider experience, and better performance because they operate in two languages, and greater flexibility and greater facility in concept formation.

Bilingualism also has psychological value that is increasing self-esteem of having the identity belonging to certain group of people in the society. For example, English-speaking people in Indonesia are usually respected and valued higher than people who cannot speak English. This has to do with language behavior and language attitude towards English and Indonesian.

Languages in speech community are usually seen as a symbol and instrument. For example, Indonesians from rural areas who come to Jakarta to get employment tend to speak in Indonesian to show that they share the same language with other people. Speaking in their first language (usually one of the local languages in specific dialect) gives no instrumental benefit that is why they limit the usage of their first language in their inner circle. This is a valorization of Indonesian; it is feared that in no time leads to subtractive bilingualism. The similar case is with English in Indonesia. High valorization of
English is feared to lead to subtractive bilingualism at the expense of Indonesian.

Bilingualism is not limited to language but it also involves culture. Reference [17] stated that language is a component of culture and that our cultural representations are shaped by language. Language is said to be the transmitter of culture. For example, English learning in Indonesia also transmits English culture. English learners usually internalize English culture in the process. One of the characteristics of English-speaking people is being efficient, for example in using time and resources that can be seen in the use of compound sentences, contraction, et cetera.

The discussion about bilingual development sometimes is related to subtractive bilingualism. Therefore, [17] suggested treating bilinguality as a cultural trait which is expected to help encourage additive bilinguality. The development of additive bilinguality is dependent on social factors that lead to the valorization of both languages and cultures.

E. Conclusion

To sum up, bilingualism and bilinguality are an integral part of human behavior. People tend to interact and communicate with other people, including with those who do not share the same language with them. Their first language seems to be inadequate to serve, that is why they need to acquire the language used in communication. This is second language acquisition and the objective of second language acquisition is to be bilingual, to achieve bilingualism and bilinguality. The driving force of second language acquisition is motivation that empowers the learners to develop positive learning behavior as a base for learning strategies.

The second language acquisition affects the cognitive development of the learners. Bilingualism and bilinguality give more benefits in the learners’ cognitive development. They are more control of their cognitive function, wider experience and better performance because they operate in two languages, and greater flexibility and greater facility in concept formation.

The bilingual’s development and behavior should not be
separated from the society where the languages in contact take place. When people use the languages in their daily life, bilingualism develops. In the society, language is seen as a symbol and instrument that usually leads to valorization. If it is not carefully managed, the impact is worse: subtractive bilingualism and subsequent language death. Therefore, [17] suggested treating bilingualism as a cultural trait as to encourage additive bilingualism.

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