

THE COGNITIVE AND CULTURAL BENEFITS OF BILINGUALISM: INSIGHTS AND IMPLICATIONS

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ABSTRACT

The word “bilingualism” originates from the combination of two roots: “Bi”-two, “Lingua”-tongue or language. It illustrates that to be aware of knowing two languages, either by an individual speaker or by a community of speakers. Bilingualism literally revolutionises within an ambience where cultural exchange thrives, fostering deeper connections and enhancing cognitive flexibility. An important features of bilingualism are bilingual family and education. Because they provide with the foundational climates for acquiring and maintaining proficiency in two languages. Here’s why: in a bilingual family, children are often exposed to both languages from an early age, supposing them to learn each language in a natural and immersive way. In educational settings provide structured opportunities to learn both the academic and social aspects of a second language, enhancing fluency and literacy.

Key words: bilingualism, bilingual, monolingual, individual bilingualism, societal bilingualism, compound bilingualism, coordinate bilingualism, sub-coordinate bilingualism, metalinguistic awareness, cognitive flexibility, executive function

Introduction

As more and more people communicate on a global level due to travel or business purposes, there has been an increased interest in learning a second language. In globalised and developing world, speaking more than one language has numerous advantages. In recent years scientists proved bilinguals are more intelligent than monolinguals in many ways, but also they have a deep and positive impact on their brain, due to the fact that it truly assists to improve cognitive skills which are not even related to language. It is also believed that bilingualism is a kind of shield against dementia. Some have started from an early age resulting in a better overall understanding of the emotional and social context of the second language, while other have taken up a second language in adulthood. Learning a language at a later stage in life has shown that adults approach language issues in the second language more analytically or rationally than their first language and then a less biased in young language learners.

Methods

Types of bilingualism:

1. Individual bilingualism- refers to only an individual utilizes two languages proficiently.
2. Societal bilingualism- refers to a whole community or country able to use two languages proficiently.
3. Compound bilingualism -Humanity develops an understanding of and proficiency in two languages simultaneously in a single context. For example, child has been brought up learning and speaking in two different languages from infancy. And they could use those languages for everyday life with both their parents and friends.
4. Coordinate bilingualism-when person learns two different languages in distinctly different context, often associating each language with different environments, concepts or cultures. For example, a child grows up in a Spanish-speaking household, but attends an English- speaking school. At home, the child uses Spanish exclusively to communicate with family members, discussing family life and traditions. At school, they use English for academic subjects, interacting with teachers and classmates. As a result, the child associates Spanish with family and personal life and English with education and public interactions.
5. Sub-coordinate bilingualism – when an individual learns the second language by filtering information through their native language. For instance, an adult who grew up speaking French starts learning English in their twenties for work. When speaking or thinking in English, they often translate words or phrases from French to English. If they want to say “ I have hunger” in English, they might directly translate it from the French phrase “ J’ai faim” , instead of using the more natural English expression “I am hungry”

Besides these types of methods , many tactics have been employed to study and understand what is the differences between monolinguals and bilinguals. These ways vary depending on the focus on the research, such as cognitive process, language acquisition or sociolinguistic aspects. Below are the main methods used for each group. For monolinguals used the methods of Language acquisition, Psycholinguistic, Neuroimaging and Brain Mapping (like FMRI,EEG and PET) and Sociolinguistic. According to these research’s result, monolinguals have a tendency to focus on mastering one linguistic system and they may have a strong communication with stronger vocabulary in their single language, and also their problem-solving strategies may rely more heavily on one linguistic framework, furthermore they have a limited

access to information and communities available in other languages. Finally, their neuroplasticity typically centred on one language.

For bilinguals used the techniques of Code-switching and Mixing analysis, Dual-language processing, Cognitive and Neurological assessments, Language proficiency assessment, Sociolinguistic and cultural studies, Second language learning methods. From these research, bilinguals show enhanced cognitive flexibility and multitasking abilities, owing to managing two linguistic systems. Not only they can develop a “metalinguistic awareness” understanding how languages are in general, but also they often experience multiple cultures, enhancing empathy and adaptability. Finally, they have more extensive neural connections due to managing two linguistic systems, which may delay age-related cognitive decline.

There are many prominent celebrities worldwide who are able to use and to manage to speak in two different languages. As an example, Natalie Portman , who is a Harvard university graduate, grew up speaking Hebrew and English. Shakira who is the singer was born in Colombia, speaks in Spanish and English.

Result and Discussion

Approximately half of the world’s population is bilingual or multilingual. In 2016, 64,6% of the European population aged 25-64 declared they knew one or more foreign languages. When considering only 25-34 year-olds, this percentage rises to 73,3% (Eurostat 2016). Moreover, the number of immigrant children worldwide who do not speak the majority language of their place of residence has increased. The bilingual advantage theory claims that the constant need to control both known languages that are always active in the brain, to use the one suitable for each specific context improves cognitive functions and specifically executive functions.

Executive function refers to a set of advanced cognitive process essential for achieving goals, including problem-solving, mental adaptability, focus, self-control, and task management. Research on bilinguals often explores it’s connection to executive function, suggesting potential differences between monolingual and bilingual individuals. Studies controlling for factors like age and socioeconomic status indicate that bilinguals, due to the mental challenges of learning and using multiple languages, may develop stronger executive control and other cognitive advantages compared to monolinguals. These benefits extend to older adults with those who learned a second language early in life showing improved self-regulation, inhibitory control and reduced risk of cognitive decline, including dementia.

Study Supporting Bilingual Advantage: A systematic review analysed many studies about how bilingualism affects executive function in children and teenagers. It found evidence suggesting that bilingual children may have stronger executive function

skills, such as better focus, multitasking, and problem-solving, compared to monolingual children. This advantage likely comes from the mental practice of switching between two languages.

Another study looked at children and found no clear evidence that bilingual provides benefit in executive functions. This suggests that bilingualism alone might not always enhance these skills and that other factors, like education or environment, may play a bigger role.

Conclusion

Bilingualism is one of the most controversial and extensively researched topic that scientists have been conducting researches for many years to identify the differences between monolinguals and bilinguals.

Bilingualisms has been widely studied for its impact on cognitive flexibility, which is the ability to adapt to new and shifting demands perspectives. Research suggests that bilingual individuals often demonstrate enhanced cognitive flexibility compared to monolinguals. This advantage arises from their regular practice of managing two language systems, which strengthens executive functions like attention control, task switching and problem-solving. These cognitive benefits extend beyond language use, influencing various aspects of learning and decision-making. However, the extent of these advantages may vary based on factors such as proficiency, age of acquisition, and frequency of language use. Overall, bilingualism highlights the profound connection between language and cognitive development, emphasizing the role of diverse linguistic experiences and adaptive thinking.

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