ISSN NO: 2769-996X
Date of Publication: 17-04-2023

Influence of Bilinguism on Socio-Cognitive Personal Development

Miliyeva Muattar Gaffarovna
Senior Lecturer, Department of Pedagogy and Psychology,
Uzbek State University of World Languages,
Tashkent city, Republic of Uzbekistan

Annotation. The article provides an overview of recent foreign studies on the impact of bilingualism on the socio-cognitive development of the individual. Recent experimental scientific research has not only destroyed the myth about the dangers of bilingual development of children, but also showed that it gives much more than just knowing two languages.

Key words: bilingualism, cognitive development, executive functions, degeneration, bilingualism, mental mechanism, ability, language, speech.

Introduction

Bilingualism as a social phenomenon is becoming increasingly important and is becoming an important attribute of modern society. The proclamation of multilingualism, multiculturalism, cultural conformity, anthropocentricity as significant principles of the national education system, which has found a positive response, causes the actualization of the study of the resource of bilingualism in the development of the personality of a bilingual student.

Bilingualism is one of the complex problems and there is no doubt that it needs to be studied in a comprehensive manner. The need to create an integrated theory of bilingualism is recognized by many scientists; some studies have attempted to implement an integrated approach to the problem of bilingualism. According to M.M. Mikhailov, this is due to the fact that the object under study itself (bilingualism) is a complex scientific problem and in its study it is necessary to apply the methods of related and non-related sciences - linguistics, psychology, sociology, ethnography, pedagogy, literary criticism, etc. This is recognized by all researchers.

Recent studies on bilingualism have not only destroyed the notion of its harm, but also showed that bilingual development of children gives much more than just knowing two languages. Along with well-known bilingual differences such as bi-culturalism, greater tolerance for other cultures, and superior competitiveness in the job market, bilinguals have lesser-known, but perhaps more important, advantages in terms of the way they think and act in different situations.

Early childhood bilingualism, being a natural process when a child receives the necessary speech imput (all incoming speech information) to a sufficient degree and is motivated to use two languages, differs significantly from the acquisition of a second language by adults. Children learn languages more easily; they tend to “play” with words, they are not afraid to make mistakes; in addition, a system of sounds and words is just being formed in their memory, which consolidates over time, complicating the acquisition of a second language. The experience of using two languages from childhood has a number of both linguistic and extralinguistic positive effects.

The phenomenon of bilingualism develops metacognitive, in particular metalinguistic, abilities of a child. E. Bialistok, working with bilingual children competent in both languages, found that bilinguals have increased control of linguistic processes, which is expressed in the ability to analyze cognitive and communicative components. Bilinguals intuitively feel the structure and functioning of languages. This category of children uses two different linguistic systems, which are identified in one conceptual system. Passing from one linguistic code to another, they give an assessment of the situation appropriate to the context. Knowledge of a second language contributes to the awareness of the arbitrary relationship that exists between a word and meaning, and affects the cognitive processing of form and content: it makes the selection and encoding of information easier and faster.

ISSN NO: 2769-996X
Date of Publication: 17-04-2023

In addition, an intuitive understanding of the structure of the language helps bilinguals in the future and in the study of other languages. Some abilities of bilingual children are associated with better executive control compared to their peers, responsible for attention, concentration, suppression of irrelevant information. Bilinguals are easier than monolinguals to move from one task to another where selective attention and the ability to ignore interfering factors are required.

This dominance continues into adulthood. The main factor linking bilingualism to executive control is due to the fact that bilinguals constantly have both languages activated. In this regard, a mechanism of inhibition (suppression) is being developed, which makes it possible to differentiate these languages, limiting the interference of the unused language in the used one. Thus, the practice of restraining one language while using another is reflected in any activity that requires attention and executive control, enhancing the ability to perform several cognitive tasks simultaneously or in rapid succession. Constant comparison of shades of meaning and various grammatical forms, concentration on one or another language, analysis of languages and elimination of interference between them enhance the bilingual's attentive abilities.

The fact that the brains of children who grew up in blended families and speak two languages from an early age are more flexible and faster, have greater cognitive abilities, is confirmed by a study conducted by J. Meyler and A. M. Kovacs at the Higher International School of Advanced Studies. It turned out that growing up in a bilingual family gives the child a cognitive advantage - a faster development of executive functions important not only for performing verbal tasks, but also for managing any activity. These processes allow you to coordinate certain actions and slow down others, shifting attention from one aspect to another, depending on the task at hand. The researchers followed six monolingual and six bilingual children at 12 months of age who were presented with tasks requiring executive control. During the experiment, the children were presented with various verbal stimuli: three-syllable words with different structures (ABA as "lovalo" or AAB as "lolova"). Immediately after listening to the sound stimulus, a toy appeared on the screen: on the left if the structure was AAB, and on the right in the case of ABA. Each child had to correctly guess the side where the toy would appear after the sound stimulation. To successfully solve the problem, children had to understand the structural sequence of verbal stimuli and, having associated one of the sides of the screen with a specific linguistic structure, shift their gaze there. Bilingual children, immediately understanding the difference, reacted correctly and quickly, while their monolingual peers had difficulty choosing the right option and were able to correctly complete the task with only one verbal structure (AAB). Thus, the researchers concluded that a bilingual child learns two linguistic structures at the same time with greater ease and can quickly orient himself when the situation changes.

The advantage of bilinguals is explained by their ability in the selection and monitoring (current control) of stimuli: the ability to choose only what matters in a given context. In the case of variable use of languages, they must, according to the situation, activate one of them and suppress the other. For someone who grows up learning two languages at the same time, such transitions happen naturally. These children develop more flexible language acquisition strategies from birth. The brain of a bilingual child is more plastic due to greater training, as it must distinguish between stimuli coming from different linguistic systems and prevent interference between them. Such children are able to more quickly control different linguistic stimuli even before they learn to speak, and, thanks to this, acquire the fundamental properties of the languages of both parents, and therefore manage different language systems without difficulty.

The effectiveness of executive abilities in self-regulation and motivation is facilitated by the intensive development of both cognitive and emotional levels. Between two and four years of age, there is a significant increase in synaptic connections in the prefrontal cortex of the frontal lobes. At this phase of development, intersecting processes of increasing working memory, consolidating inhibition control, planning, and social behavior are activated.

Neuronal density does not decline until the age of seven, during this period of maximum brain plasticity, higher cognitive processes are particularly affected by experience and learning.

In youth, the growth of their activity stops and by about 20 years of age undergoes remodulation (restructuring) with the programmed destruction of unused connections. Personal experience determines which bonds are strengthened and which are eliminated: those that have been used more will remain. In this regard, important factors contributing to the development of executive functions include the quality of communication between

ISSN NO: 2769-996X
Date of Publication: 17-04-2023

parents and children at an early age, the behavior of the parents themselves, and the speech input coming to the child.

A study by A. Michelli (Institute of Cognitive Neuroscience, University of London) found that learning a foreign language increases the amount of gray matter contained in the angular (angular) gyrus of the left parietal lobe of the brain (one of the areas of the brain responsible for speech). The results confirmed that learning a language from early childhood is easier: the brain is more plastic and more amenable to change. Gray matter enlargement has been shown to be in close relationship with the level of language learned and language use. “Only in the last two or three years, research in the field of neuroscience has shown that the structure of the brain changes depending on the type of its work.”

The brains of balanced and unbalanced (knowing one language better) bilinguals worked differently during a linguistic experiment on listening and memorizing words. In the former, when using the method of functional magnetic resonance (FMR), activity was noticed in the phonological working memory zone, in the latter, this zone was less active and was replaced by the work of other areas. The data from this study support the assumption that short-term memory is more efficient in bilinguals.

The benefits of bilinguals include early knowledge that there are points of view other than their own. This cognitive decentration, known in psychology as "The Theory of Mind", is usually achieved by bilinguals a year earlier than monolinguals. and is associated with the constant practice of assessing the linguistic competence of the interlocutor, necessary for choosing a language according to the type of person with whom the bilingual enters into a conversation (knowledge of language A, knowledge of language B, knowledge of languages A and B). The age of 4 years is recognized as the moment of the beginning of the formation of the mental model, when children begin to realize the tasks for incorrect opinions. A typical example is the classic "Sally - Ann" task for understanding false beliefs and other similar tasks. For example, a child is shown an object that looks like a stone, but in reality it is a sponge. After he is told what it really is, he is asked what another child might think when he first saw this object: is it a stone or a sponge. Monolinguals usually answer correctly (stone) at about 4 years old, bilinguals - as early as 3 years old. Constant translation requires constant mental actions, concentrating the child's attention on the conceptual attributes (features) of objects or situations, and not on the objects or situations themselves.

This contributes to the decentralization process. Sandra Ben-Zeev identifies four main mechanisms that underlie such a process and solve the problem at the structural level of the language in a bilingual context:

1) increased capacity for linguistic analysis, which is a stimulus in individual reflection and comes from the positive effects of linguistic interference;
2) greater sensitivity to response cues from a surface linguistic structure or verbal situational context. This heightened sensitivity results in a more general understanding of language use in communication, eliminating speaker anxiety, confusion, and confusion. To switch from one language to another, a bilingual needs to change the behavior associated with this language, i.e., paying attention to the small details of each situation, responding accordingly;
3) generalization of structural differences between languages. A bilingual child is aware of his linguistic codes as internally connected systems earlier than his monolingual peers, since he is more attentive not only to the differences between his two languages, but also to linguistic constants and variables in general;
4) neutralization of intralinguistic structures. In order to resolve the linguistic complexities that arise when owning two structurally different codes, bilingualism neutralizes the structures of one of the two languages at the point of conflict.

B. Benelli studied the effects of bilingualism on ideas about mental states. The results show that the bilingual experience helps to understand that there are different mental states of the two interlocutors that control their behavior. The researcher connects this with increased abilities to analyze situations in general and with the early discovery of the existence of various symbolic-linguistic representations for the same reality in particular. The sensitivity of bilinguals to the communicative aspects of interaction can be regarded as a manifestation of the possible experience of not understanding others or the experience of not being understood by others, depending on the context, the language used, the interlocutor, etc. Other researchers also emphasize special sensitivity to the needs of the interlocutor (for example, communicating more accurate information to a blindfolded participant), along with the ability to assess the adequacy or ambiguity of the message.

ISSN NO: 2769-996X
Date of Publication: 17-04-2023

Bilinguals are better at recognizing deceit, falsehood, and intentions disguised as irony. To understand an ironic statement, one must go through its literal meaning. This requires knowledge of the "mental" other, so as not to confuse irony with lies or mistakes and understand the actual communicative intentions of the speaker. It must be emphasized that the understanding of irony affects not only recursive thinking of the first order, but also of the higher order: "I think that you think that I think."

Bilingualism stimulates creativity, understood as the ability to activate and simultaneously develop complex and multi-categorical concepts; contributes to the development of divergent thinking - a process that allows you to consider many possible solutions to the same problem and thus develop creative ideas.

So, bilingualism has significant advantages, especially if the child is under the influence of input from two languages from birth and communication in them becomes a linguistic habit. These advantages greatly outweigh the shortcomings of bilingualism, which are often temporary. Learning a second language expands the mental boundaries of a child who, from a cultural and linguistic point of view, will be more prepared to enter into life: he will understand earlier that there is not only his home and his country, not only his world, but also other countries with other languages. and traditions, will be richer inwardly and less prone to prejudice. In the modern world, it is very important to be prepared for non-standard situations that do not have a clear answer, look at things from different angles, analyze complex information, formulate hypotheses, find the right idea at the right time, enter into the situation of other people, and possess the art of successful and persuasive communication. This is where the power of bilingualism comes into play. The world we live in is complex, and whoever can understand and master this complexity will be one step ahead.

Linguistic diversity and multilingualism are the property of mankind, this is our historical and cultural wealth, and, in addition, the study of the process of mastering languages is an opportunity for deep knowledge of the mechanisms of the human brain.

Reference

1. Ben-Zeev S. The influence of bilingualism on cognitive strategy and cognitive development // Child Development. 1977. № 48 (3). P. 1009–1018.
2. Bialystok E., Craik F. I. M. Cognitive and Linguistic Processing in the Bilingual Mind // Current Directions in Psychological Science. Mar2010. Vol. 19. № 1. P. 19–23.
3. Kovács A. M., Mehler J. Flexible learning of multiple speech structures in bilingual infants // Science. 2009. Jul 31; 325(5940). P. 611–612.
4. Mechelli A., Crinion J. T., Noppeney U. O'Doherty J., Ashburner J., Frackowiak R. S., and Price C. J. Neurolinguistics: Structural plasticity in the bilingual brain, 2004. Nature, 431 (757).
5. Sorace A. The more, the merrier: facts and beliefs about the bilingual mind. In S. Della Sala (ed.) Tall Tales about the Mind and the Brain: Separating Fact from Fiction, 193–203. Oxford: Oxford University Press, 2007.