Influence of a Foreign Language on a Cognitive Development of Personality

Alyona Korneeva
Dept. of Foreign Languages (Business and Law Profile)
Altai State University ASU
Barnaul, Russia
korneevaalyonal@rambler.ru

Tatyana Kosacheva
Department of Foreign Languages
Altai State Agricultural University ASAU
Barnaul, Russia
kosache-tatyana@yandex.ru

Oxana Parpura
Department of Foreign Languages
Altai State Agricultural University ASAU
Barnaul, Russia
oxikanka@mail.ru

Alexander Levin
Department of Foreign Languages
Polzunov Altai State Technical University
Barnaul, Russia
levinav2010@mail.ru

Tatiana Dobrydina
Department of Foreign Languages in Professional Communication
Kemerovo State University
Kemerovo, Russia
tdobrydina@rambler.ru

Abstract — The article investigates the process of the influence of an in-depth study of a foreign language on the transformation of the cognitive sphere of personality. Competence and knowledge of another culture, entering a foreign language space contribute to the development of the cognitive component, which includes obtaining information about foreign culture, traditions, cultural values: mores, customs, stereotypes of behavior and consciousness, assessments, opinions, interpretations, etc. This knowledge leads to the integration of society, to the growth of mutual understanding between people, their complementarity, solidarity, mutual assistance, etc. The development of cognition is mediated by the fact that a foreign language, as an additional channel of information into the system, increases the amount of knowledge that is the basis of mental activity, which has a positive effect on the quality of intelligence. Language has a huge impact on the formation of ideas about the world, is the basis of the development of thinking.

Keywords — cognitive development, foreign language space, cognition, foreign language, cognitive activity

I. INTRODUCTION

The process of personality formation in modern conditions of society development is influenced by two leading trends - globalization, mixing and intertwining of cultures, and at the same time, preservation of native culture, traditional values and national identity. A person learns a system of meanings, initially communicating in his native language, as he grows up, the sphere of communication involves the person in a system of various interactions, including with representatives of other cultures.

Globalization, economic integration of European countries determines the relevance of foreign language education, which leads to close cooperation with the world community in solving problems of humanity, the implementation of projects in various areas of international cooperation. The status of a foreign language is an opportunity to take advantage of an open society.

Knowledge of a foreign language can act as a factor that forms a mechanism for changing life values and guidelines learned in the process of interiorization by means of the native language. Intercultural communication contributes to the definition of self-identity, self-actualization, standards of morality associated with national traditions. The process of influence of foreign language acquisition on consciousness and human development remains poorly studied. In this regard, the main objective of this article is to study the impact of learning a foreign language on the development of personality in the interaction of cultures. The process of transition from one language code to another, i.e. the transition from one semiotic system to another, which is made by a person when mastering a foreign language, is studied by psychologists, psycholinguists, sociolinguists, teachers.

Analysis of the nature of human thought makes us turn to the achievements of various sciences dealing with the problems of human consciousness, his cognitive abilities. Such problems can be covered only by cognitive science, interdisciplinary in nature, combining neurophysiology, psychology, philosophy of mind, the theory of artificial intelligence, as well as cognitive-discursive paradigm and psycholinguistics.
II. MATERIALS AND METHODS

Foreign language—is a phenomenon associated with the mental activity of man. In the process of studying, socio-psychological capabilities of the individual are involved. Cognition of the surrounding reality occurs according to the laws of mental activity, in a certain cultural environment, through interaction with the surrounding world. Identification of an unfamiliar object, its name is one of the most important steps in the process of cognition of the new. G. G. Spet believed that "... knowledge, as experience, only becomes science and knowledge when it is expressed in the word" [1].

The experience of the individual in understanding and mastering the world, passed through language, is a part of consciousness, since for modern man most of his mental, mental activity proceeds with the help of language. The world is interpreted by a person first of all in the system of language signs. According to the scientist, the main thing is that cognition covers all forms of comprehension of the world, and they begin with the first contacts of a person with the environment; human behavior is adaptive, and therefore cognition—the formation of information about the world—is a constantly occurring and constantly ongoing process [2].

In the majority of psychological researches features of interaction of the person and the surrounding reality reflected in his consciousness are considered (S. L. Rubinstein, B. G. Ananyev, A. N. Leontiev, D. A. Leontiev, F. E. Vasilyuk, etc.). The interrelations of the world picture and the language of its bearer are investigated within the framework of linguistics and psycholinguistics (O. A. Kornilov, Yu. N.Karaulov, J. A. Kornilov), Miller, et al.). Theories and concepts of the impact of learning a foreign language on the personality are reflected in various aspects. Thus, from the point of view of psychological and pedagogical direction (L. S. Vygotsky, A. A. Leontiev, R. K. Minyar-Beloruchev, I. A. Zimmaya, B. V. Belyaev, etc.), the development of a foreign language is considered as a socio-cultural phenomenon that causes certain changes in the individual psychological reality of the subject of educational activity: broadens horizons, develops thinking, steadily strengthens different types of memory, improves cognitive activity, further develops formed verbal skills of communicative competence, increases the level of tolerance [3]. The success of mastering a foreign language is determined by the combination of all factors: motivational, emotional, cognitive, personal, psychophysiological and interactive [4].

Learning a foreign language is accompanied by cognitive development of the person. Language has a huge impact on the formation of ideas about the world, is the basis of the development of thinking. After all, this is the code that man uses to designate the objects, images, phenomena, ideas that he encounters in the symbolic universe of culture surrounding him. Language is a tool and means of transmission from generation to generation of knowledge, cultural, historical and other traditions [5].

L. S. Vygotsky was one of the first to formulate the understanding of the speech act as a process of movement from thought to word. This movement begins with the motive that generates a thought, then the thought itself takes shape: in the inner word, in the meanings of the outer words, and finally in the words. Thought in this case is an internal mediated process that serves to perform a function. The work of thought consists in the transition "from the feeling of the task—through the construction of meaning—to the unfolding of the thought itself" [6]. The speech act starts with needs. Students of a foreign language, as a rule, have such a need—the need to communicate in a foreign language, and consciously seek to express their thoughts in it. Leontiev A. N. noted that in speech and word it is necessary to allocate external (sound) and internal (semantic) parties. The word is the carrier of communication, and the process of speech development is associated with the development of thinking and consciousness [7]. The concept of "thinking" and the concept of "consciousness" in modern scientific literature are considered as two related phenomena that are not identical. This is due to the fact that thinking provides the dynamics of the processes of the mental sphere of the individual, while consciousness makes it possible to preserve the results of these processes [8] and can be considered as a component of the cultural environment created by man. This understanding allows us to see the relationship of language and thought in the relationship.

When faced with an unfamiliar word, a person directs all his energy to identify it. In turn, the word itself contains some keys that can be useful in the identification process. Synergism, the fusion of the energies of the individual and the word and ensure the success of this process. Many factors have a great influence on this process, first of all, of course, it is the content of the individual's personal affective-perceptual-cognitive experience [9].

Speech is not just a verbalization of thought, but it is "creative intellectual activity included in the general system of mental and other human activities" [10]. Speech solves a cognitive task, in the case of a problem situation, which can be carried out with the support of the language.

Thus, the more versatile will be the mental activity that the student is able to produce with the support of a foreign language, the more free and adequate will be the process of communication in this language. Cognitive component is a psychological characteristic of the cognitive sphere of a person, which means mastering knowledge, skills, norms and rules of communication, behavior, relationships, mental activity, etc.

Assimilation of knowledge contributes to the formation of concepts and the development of theoretical thinking, which requires the individual to analyze the causes of the relevant phenomena, understanding the laws that bind them, as well as awareness of the ways of thinking that lead to correct conclusions [11].

Individual consciousness must be studied through linguistic meanings, since "in the system of representations of each individual there are specific components inherent only to him, due to his individual experience" [12]. The author of this concept believes that the carrier of meanings is the language, behind the language meanings socially developed ways, operations are hidden, "Concepts are not formed in the child's head by the type of formation of sensory images, but are the
result of the process of assigning "ready", historically developed values and this process occurs in the activity in the conditions of communication with people around" [12].

In the early stages, the student learns the subject-related meanings, then masters logical operations in their external exteriorized form. When they interiorize, they form abstract meanings, concepts, and their movement constitutes inner mental activity.

This process was studied in detail by P. Ya. Galperin, who developed the theory of gradual formation of mental actions and concepts [13].

The word as a unit of language has the function of a certain "meaning", i.e. it allocates and generalizes the features, analyzes the subject, relates it to a certain category and conveys the universal experience. It allows a person to go beyond direct perception, thus providing a leap from the sensual to the rational, which is essential for human consciousness [14].

The possibilities of using language are as diverse and limitless as the vital needs of the individual, and its influence on human development lies in the performance of a number of functions. The nature, the essence of language, like any other object, is manifested in the functions performed by it in the environment in which it exists. The function of an object refers to the external manifestation of its properties, the way it is used [15].

Vygotsky L. S. in the work "Development of Higher Mental Functions“ considers in the structure of these functions "the sign and the way of its use as determining the whole focus of the whole process. Just as the use of a tool dictates the entire structure of the labor operation, so the character of the sign used is the main point, depending on which the rest of the process is constructed” [16]. According to the scientist, culture does not create anything new beyond what has already been created by nature, but it modifies nature according to the goals of man. The sign is a neutral object mediating a particular mental process [17]. The internal structure of a signed operation is enclosed in a meaning, there is no sign without a meaning. Meaning is something that is included in the value, but is not assigned to the sign, the meaning of the word is a process of generalization.

In the consciousness of an individual who speaks two languages, there are two pictures of the world, one of them reflects the specifics of the native language, native culture, and the other-a foreign language [18].

Starting to learn a foreign language, a person already has the skills of native speech, which seeks to transfer to a new language. Foreign words in this case are reproduced by internal translation [19].

Mastering a new language cannot change a person's thinking, because the laws of thinking are universal, but it can change his consciousness. Mastering new information, including about another language, is a process of cognition. The same universal mechanisms are used for cognition of different phenomena, but any cognition is mediated by the content of human consciousness. Learning a foreign language at any level and in any volume is a complex process that directly affects the consciousness of the subject. In-depth study of a foreign language initially involves the transformation of personality consciousness at different levels: cognitive, verbal, psycho-emotional, and then a foreign language consciousness is formed [20].

III. RESULTS

This study examines in detail the features of learning a foreign language and its impact on the development of personality, the formation of the cognitive component. Cognitive component is defined as a set of scientific, everyday knowledge about the human psyche. As a result of the survey, it was found that the majority of students studying a foreign language in depth are a group of young people who are seriously motivated to master a foreign language as a tool for their future professional activity, opening access to prestigious work, foreign contacts, as a means to see and “feel” a different culture, to communicate with people born and raised in another country.

The next stage of the study was aimed at studying the influence of a foreign language on the cognitive component of the personality structure depending on the duration of entry into a foreign language space.

At the initial stage, when learning a foreign language, a basic level of intellectual competence is formed, which mediates the development of the cognitive component and involves expanding the horizons of students, increasing the level of their general education. The general language, verbal and intellectual development is determined by the interest in the country of the studied language, the creation of positive motivation for learning, the desire for mutual understanding, respect for another culture.

Thus, students studying a foreign language for a long time have a deeper knowledge of the facts of foreign language culture in terms of: “writer” (t = 2.073; p = 0.04), “work” (t = 2.112; p = 0.037), “poet” (t = 2.112; p = 0.037), “composer” (t = 2.163; p = 0.032), “artist” (t = 2.098; p = 0.037), which is less than the level of significance (α = 0.05). This suggests that the differences between the groups depending on the stage of entry into the foreign language space can not be random and the average data of indicators can be considered significantly different from each other. Thus, dynamics of development of cognitive component, i.e. qualitative and quantitative increase in knowledge, learning new information about another language and culture, traditions, cultural values, mores, customs, patterns of behavior and consciousness, evaluations, opinions, interpretations, etc., lead to the integration of society, to the increase of understanding between people, their complementarity, solidarity, mutual assistance, etc.

IV. DISCUSSION

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
lone of the brain (one of the areas of the brain responsible for speech). The results confirmed that learning language from early childhood is easier: the brain is more plastic and better amenable to change. It has been demonstrated that the increase in gray matter is closely related to the level of language learned and its use. “Only in the last two to three years have neuroscience studies shown that brain structure changes depending on the type of work it does” [21].

Some areas of the brain—the hippocampus and some parts of the cerebral cortex of a person who is intensively engaged in foreign languages, grow. According to the results obtained in the study of the brain, from professional translators, there is an increasing amount of gray matter in those who for at least three months doing in-depth study of the language—and the more efforts made a particular study participant, the more noticeable was the increase in the volume of gray matter” [22].

People who grew up in a multilingual environment have a much better memory than those who have heard only native speech since childhood. Moreover, they are better at mental arithmetic, have better reading abilities and other similar skills [23].

Thinking of the individual, his cognitive activity is closely related to language, one of the functions of which is to create an idea about the world [24].

The cognitive component includes the degree of education, competence and culture in general. Based on the results of the study, it can be concluded about the impact of the duration and content of the foreign language program on the development of thinking. This process contributes to the formation of a harmonious and developed personality. The cognitive component is manifested in the outlook, erudition, awareness of various phenomena of the psyche and the surrounding reality, in terms of experience, drawn from traditions, customs, direct human communication with other people, etc. Mastering the system of signs and their meanings, ways of activity, knowledge of reality, the application of this knowledge at the level of role behavior, social functions, traditions involves the development of cognitive component.

V. CONCLUSION

Language learning is a subtle cognitive process that helps to grow and develop a harmonious and developed personality. Knowledge of a foreign language expands the mental boundaries of the individual. An important role here is played by the dialogue of cultures, in which people participate, not the cultures themselves. In this context, culture is a stabilizing factor on which its stability is based [25].

In the modern world, it is very important to be prepared for non-standard situations that do not have a clear answer, to look at things from different angles, to analyze complex information, formulate hypotheses, find the right ideas at the right time, to enter into the position of other people, to master the art of successful and convincing communication. The world we live in is complex, and anyone who can understand and master this complexity will be one step ahead. Studying the process of mastering foreign languages is an opportunity for deep knowledge of the mechanisms of the human brain.

Foreign language space affects the expansion of the spectrum of manifestations of creative expression: in behavior, communication, reflection. Learning a foreign language is a creative process in which students develop logical thinking, develop actions such as the ability to compare and contrast, analyze and synthesize, draw conclusions, which contribute to the development of cognitive activity.

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