

Cognitive Theory of Psychological Types in Solving Problems of Intercultural Communication

Khousy Mamalova^{4,*}, *Mair Makhaev*^{1,2,3}, and *Birlant Zakrailova*⁴

¹Moscow International University, Leningradsky Prospekt, 17, Moscow, Russia

²Kh. Ibragimov Complex Institute Research of the Russian Academy of Sciences, Staropromyslovskoe shosse, 21a, 364051, Grozny, Russian

³Sattorov names Laboratory of Cognitive Research of Consciousness, Ibn-Sina Str., 19, Nazran, Russia

⁴Kadyrov Chechen State University, Sheripova st., 32, 364024, Grozny, Russian

Abstract. The purpose of this article is to give an overview of the cognitive concept of psychological types, which makes a significant contribution to solving the problems of intercultural communication. Scientists from Moscow International University and the Laboratory of Cognitive Research of Consciousness named after Said Makhdikhon Sattorov (Laboratory of Cognitive Research of Consciousness Said Makhdikhon names) under the guidance of Professor of the Russian Academy of Natural Sciences (RANS) Maira Makhaev have developed a cognitive theory of psychological types, which allows analyzing intercultural communications with positions of psychotypology. The cognitive concept is based on the main provisions of Carl Jung's concept of psychological types (Jungian Psychological Types Theory). In this concept, a new terminology is proposed to designate mental functions (S, I, E, L), classes of mental functions (class of constructive functions and class of receptive functions), directions of work of functions (exoversion and endoversion instead of extraversion and introversion) and 16 psychological types. The psychological type is described as a cognitive system for receiving, transforming, storing and transmitting information.

1 Introduction

The processes of globalization and the high intensity of migration processes have actualized the problem of successful interaction between representatives of different cultures. The need to create conditions for their successful communication and reduce conflict potential has increased the importance of research into the problems of intercultural communication.

The concept of intercultural communication was introduced into scientific circulation by the American cultural anthropologist Edward Hall in the 1950s. On instructions from the US State Department, Edward Hall developed a program for the adaptation of American diplomats who found themselves abroad. He considered intercultural communication to be

* Corresponding author: mamalova_1964@list.ru

the ideal goal that a person should strive to achieve in order to effectively adapt to the environment [1].

Nowadays, numerous research works are devoted to the study of the problems of intercultural communication [2,3,4].

There are various definitions of the concept of “intercultural communication”.

As a rule, most definitions boil down to the fact that intercultural communication is a set of diverse forms of communication between people and groups of people who belong to different cultures (ethnic communities) [5]. Such forms of communication form what the philosopher V. Bibler called the force field of the dialogue of cultures [6]. The basic concepts that are often used in studies of intercultural communications are: “communication”, “information”, “language”, “culture”.

This indicates that research in the field of intercultural communication is interdisciplinary in nature. In particular, the problem of intercultural communication is studied within the framework of differential psychology. An effective tool for solving the problem of intercultural communications is, in our opinion, psychological typology.

The typological approach allows us to analyze intercultural communications in the context of identifying the behavioral characteristics of representatives of different cultures. Modern psychologists argue about the existence of a national character, as stable features characteristic of members of a particular national (ethnic) community, features of the perception of the world, motives for actions (ideas, interests, religion). Features and specifics of the behavior of a people is a structural element of the national character. We believe that each ethnic group belongs to a certain psychological type.

This article reveals the theoretical and methodological foundations of the cognitive theory of psychological types, developed by scientists from the Moscow International University and the Laboratory for Cognitive Research of Consciousness. Makhdikhon Sattorov under the guidance of Professor RANS Maira Makhaev.

2 Research Methodology

The bibliographic base of the study is made up of various scientific articles that outline the cognitive concept of psychological types.

The study used the modeling method, the historical method, as well as the operations of analysis, synthesis, abstraction.

3 Results and Discussions

In the cognitive concept, the psychological type is described as a cognitive system for receiving, transforming, storing and transmitting information [7].

In addition, new terminology has been developed in the cognitive concept to refer to mental functions (S, I, E, L), classes of mental functions (class of constructive functions and class of receptive functions), directions of work of functions (exoversion and endoversion instead of extraversion and introversion) and 16 psychological types.

Let's describe these terms. Let's start with the direction of the functions.

a) the direction of the work of functions (intentionality)

Jung argued that “each person is guided by the data that the outside world transmits to him” [8]. Jung distinguished two attitudes: extraverted and introverted. By extraversion, Jung meant the direction of mental energy (libido) outward - to objects of external reality. Introversion, on the contrary, involves the direction of mental energy to the inner world of the subject.

The terms extraversion - introversion, many years after the publications of Carl Jung, have become ambiguous.

Professor Makhaev considers it correct to use new terms – “exoversion” and “endoversion” instead of the usual terms “extroversion” – “introversion”.

Makhaev also proposes to consider attitudes as types of intentionality, and not directions of libido, as in Jung.

Complementing Jung, he argues that a person is guided by the data that the external and internal environment transmits to him. The cognitive paradigm, within which the cognitive concept has been developed, considers a person as an information system. Therefore, according to Makhaev, a person is a creature that receives information from two sources: external and internal.

External information is understood as such information that is extracted from sources outside the subject.

Internal information comes directly from the subject (his body, psyche).

Thus, intentionality is the focus of consciousness on certain sources of information.

If a person focuses on sources of external information, and at the same time such an orientation is so predominant (and so habitual) that it determines his most important decisions, we are dealing with an exovert type.

An exovert lives in accordance with and in harmony with objective conditions. External objects (or external information flows), being a determinant value for him, quite strongly influence his thinking, feelings, actions. In the same way, the exovert himself actively influences the world, transforms it, manipulates the feelings of others, shapes thinking, and corrects the behavior of others.

If a person is guided by internal information, and at the same time such an orientation is so predominant (and so habitual) that it determines his most important decisions, we are dealing with an endovert type.

Endovert lives according to subjective factors. He, of course, interacts with objective reality, experiences its influence on himself, but it is the subjective determinant that is decisive and fundamental for him. The objective factor (external information flows) does not represent independent value for him. An object has significance insofar as it represents an opportunity for subjective interpretation, it is an occasion for deep reflection.

Subjective moments are certainly present in the life of an exovert, but their role is secondary, “their determining force is less than the force of external, objective conditions” [8]. Subsequently, Makhaev will introduce the concept of the coefficient of brightness of bipolar signs and propose a formula for its calculation, which will make it possible to determine the degree of this determining force. The higher this degree, the more pathological the situation is. For an exovert, pathology is the assimilation of one’s subjectivity to an object, leading (according to Jung) to a harmful oppression of the subjective factor. An endovert, on the contrary, can become isolated in his inner space to the maximum, and the fear of objective reality can increase to such an extent that a person will be unable to communicate with people, will not be able to defend his position.

To designate these two types of orientation, two corresponding signs have been introduced: a) the “+” sign for exoversion b) the “-” sign for endoversion.

b) mental functions

In cognitive theory, 4 basic functions (Jungian functions) are used: S, I, L, E,

L function (or logical function) is a mental function associated with the reception, transformation, transmission and storage of information about external (L+) and internal (L-) patterns and processes.

L function within the framework of exoverted intentionality (L+) is oriented to objective circumstances. A logical exovert is interested in external (objective) processes and for his judgment the determining criterion is “borrowing from objective circumstances”, be it a sensual (empirical) fact or even an externally given objective idea.

The function of L+ is not only thinking with concrete facts (practical thinking), but also thinking with objective ideas, “if only it is established that the ideas through which thinking

proceeds are more borrowed from outside, that is, transmitted by tradition, upbringing and the course of education.”

The L+ function is necessary for natural scientists, engineers, programmers, technologists, etc.

The L function within the framework of endoverted intentionality (L-), as it should be for an endoverted function, is turned towards the subjective factor. The L- function can, like the L+ function, be occupied with specific facts or ideas. But since the function L- is oriented to the subjectively given, even starting from a concrete experience, “it does not lead back to objective things, but to subjective content” (i.e., such thinking begins its movement within the subject and returns back to subject). The facts of objective reality are neither the goal for it nor the cause of its activity. Function L- abstracts from the facts and forms new worldview concepts. Facts can serve as illustrative material for it, an evidence base, or raw materials for creating ideal designs. So, the facts for the logical endovert are secondary; value for him are the ideal constructions he created, which can be filled with facts, explain current events and exist, regardless of changes in the external environment. These ideal constructions are valuable to him in themselves.

S function (or sensory function) is a mental function associated with the reception, transformation, transmission and storage of information about the specific properties of an object (S+) and the state of its internal environment (S-).

The S function within the framework of exoverted intentionality (S+) focuses on the specific properties of objects that are fixed by the senses. Jung called the sensitive exovert the most realistic of all existing types, since he has a developed objective sense of fact, a good sense of tangible reality.

The S+ feature is essential for fashion designers, politicians, military leaders, surgeons, and more.

Here it should be emphasized that the sensation of the object is not the final constant motive for the activity of the sensitive exovert. As Jung rightly pointed out, sensation is not a reactive process, absolutely indifferent to the object; the S+ function also causes some activity associated with the possession of this object (for example, capturing the object), its transformation (for example, giving it a new form).

This provision also applies to other functions: for example, an intuitive function is not only an act of contemplation, but also an act of creative transformation that introduces something new into an object or extracts information from it.

Jung did not use computer science terminology. He created his concept in the paradigm of analytical psychology (using all its mystical and many unscientific provisions). Now we can say: a person participates in information exchange, which involves not only the reception of information, but also its transformation and transmission. All functions are involved in this process: each interacts with similar functions.

The S function within the framework of endoverted intentionality (S-) means the primacy of subjective sensations. The sense organs are actively involved in information exchange, as is the case with S+. But for the S-function, the base is the kinesthetic representational system based on the olfactory-tactile channel of information. A sensitive endovert feels well his body, the state of his body, he has developed aesthetic feelings.

I function (or intuitive function) is a mental function associated with the reception, transformation and transmission of information about the potential capabilities of objects (I+) and subjective images (I-).

I function within the framework of exoverted intentionality (I+) is turned to objective reality; in this respect, it is quite close to the S+ function, which can also demonstrate an expectant attitude towards the object. However, the primary task of the I+ function is to convey images “or visual representations of relationships and circumstances that are either completely unattainable with the help of other functions, or can only be achieved on distant detours” [8]. In addition, it is important for the I+ function to capture a wide range of possibilities about the object (as Jung would say, intuition is satisfied by the contemplation

of possibilities). An intuitive exovert seeks to discover new opportunities in situations, processes, identify the potential of people, and generate scenarios for the development of events. I function within the framework of endoverted intentionality (I-) is aimed at internal objects, which can be images of consciousness. Jung wrote: “Internal objects are presented to intuitive perception in the form of subjective images of things that do not occur in external experience, but are components of the content of the unconscious - ultimately the collective unconscious. These contents are, of course, in themselves inaccessible to any experience—a property they have in common with an external object. Just as external objects are only quite relatively the way we perceive them, so the forms of the phenomena of internal objects are relative and are products of their essence, inaccessible to us, and the peculiarity of the intuitive function.

E function (or emotive function) is a mental function associated with the perception, transformation, transmission and storage of information about feelings, emotional states and values, manifested as objective data (E+) or in the process of subjective experiences (E).

The E function within the framework of exoverted intentionality (E+) deals with objective data, which are feelings and emotions (of course, we are talking about already manifested feelings and emotions, since only in this state can they become an objective given). The function E+ is renounced from the subjective factor. For an emotive exovert, generally accepted values are fundamentally important. All his assessments somehow agree with the generally accepted value scale. Jung noted that it is thanks to this kind of feeling that the influence of theater, music, church, and fashion on people’s lives becomes possible.

The E function within the framework of endoverted intentionality (E-), on the contrary, is quite strongly associated with the subjective factor.

Jung rightly pointed out that understanding what he called “subjective feeling” is quite difficult. “In order to convey itself to others, it must find an external form capable, on the one hand, of apprehending the subjective feeling in an appropriate way and, on the other hand, conveying it to its neighbor so that a parallel process arises in it” [8].

One of the means of transmitting information on the E-function is poetry, which allows expressing the subtleties and nuances of subjective feelings and emotions. Among emotive endoverts there are many writers and poets. The emotive endovert is secretive, silent, calm.

c) classes of mental functions

Jung correctly noted that the events that take place are both natural and random. Since these events are random, they are not accessible to the mind, and since they are regular, they are accessible to the mind. Accessibility to the mind means the ability to discover certain patterns, i.e. the principles of reason and its postulates are actively involved in this process. If the events are so random that the principles of reason are unable to find regularities in them, then we confine ourselves to a simple perception of these events.

Jung himself reflected such a binary opposition with the concepts of “rationality - irrationality.”

In cognitive theory, all functions are also divided into two classes, but these classes have other names: those functions, the essence of which is the absolute perception of reality, are receptive functions (from the Latin word “receptio”; R class functions);

Receptive functions are directed “...to what is happening and what is not subject to choice on the basis of judgment.” Receptive types are guided by a situation, a case, an event, and not an attempt to somehow rationally connect them (for example, into a system of judgments) and build a clear and precise picture of what is happening. Obviously, these are the S and I functions.

Functions, the essence of which is to coordinate actions with the laws of reason, principles and norms, we will call constructive functions (from the Latin “constructivus”). These are the L and E functions (functions of the K class).

Constructive functions are functions of reasonable judgment. Emotive and logical constructive types tend to exclude everything unreasonable and accidental from their life

activity. Reasonable judgment is such a force that “squeezes everything disorderly and random in a real process into certain forms, or at least tries to squeeze it in.” The rational judgment of constructive exoverts is oriented, of course, to the objectively given and depends on it. This means that the laws of reason, principles, norms, scales, etc. will be of value insofar as they are generally recognized, generally significant. Reasonable for constructive exoverts is what is recognized as such. For constructive endoverts, norms do not represent a value in the sense that they have the status of universally recognized and generally significant. It is important for an Endovert to pass the norms through his “I”, reflect, analyze. As a result of these operations, a constructive endovert can correct the norms, or even abandon them altogether and create their own scale.

All these distinguished countermechanisms are characteristic of each person, however, “external circumstances and internal disposition very often favor the work of one mechanism to the detriment of another. Naturally, this entails an advantage in the direction of the operation of one mechanism. Jung noted an important detail: if “... if such a state becomes predominant for certain reasons, then as a result of this a type arises, that is, a habitual attitude in which one mechanism constantly dominates, although not being able to completely suppress the other, since this other the mechanism constitutes the unconditional belonging of the entire mental economy” [8].

The combination of these parameters results in 16 psychological types (Table 1).

Table 1. Classification of psychological types in the cognitive concept

Focus	Construction types	Receptive types
Exoverts	S+ (L+)	(S+) L+
	I+ (E+)	(I+) E+
	S+ (E+)	(I+) L+
	I+ (L+)	(S+) E+
Endoverts	S- (L-)	(S-) L-
	I-(E-)	(I-) E-
	S- (E-)	(I-) L-
	I- (L-)	(S-) E-

4 Conclusions

Thus, this article outlined the theoretical and methodological foundations of the cognitive concept of the psychological type, developed by an international team of scientists from Moscow International University on the basis of the typological ideas of Carl Jung.

The cognitive concept considers the psychological type as a cognitive system for receiving, processing, storing and transmitting information.

This cognitive process is carried out by 4 mental functions that work in two directions: external (exoversion) and internal (endoversion).

A total of 16 such cognitive systems have been identified.

This concept can be successfully used to solve the problems of intercultural communication. Each person belongs to one type or another, has its own strengths and weaknesses. Harmonious interaction between people implies the possibility of realizing

one's strong functions, one's potential, on the one hand, and protecting weak functions, on the other.

References

1. E. Hall, *Hidden Differences: Studies in International Communication*, 125 (1983).
2. S. S. Takhtarova, D. L. Abuzyarova, O. D. Kuzmina, *Academic Journal of Interdisciplinary Studies*, **2**, 126 (2019).
3. A. N. Muratova, S. Mazhitayeva, A. Kelmaganbetova., B. Z. Sarybayeva, Z. Kulibekova, *Rupkatha Journal on Interdisciplinary Studies in Humanities*, **1**, 1 (2021).
4. Y. V. Eremin, O. G. Oberemko, E. A. Maliutina, *Technology, Innovation and Creativity in Digital Society*, **345**, 811 (2022).
5. T. B. Frick, *Fundamentals of the Theory of Intercultural Communication* (2013).
6. V. S. Bibler, *From Science to the Logic of Culture* (1991).
7. M. Makhaev, Kh. Mamalova, Z. Akhmadova, *EPSBS*, **128**, 429 (2022).
8. K. Jung, *Psychological types*, 152 (2011).