

THE ADAPTATION OF GENERAL MODELING PRINCIPALS  
TO PSYCHOLINGUISTIC SPHERE ON THE EXAMPLE  
OF LINGUAL PERSONALITY

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*У статті запропоновано аналіз основних наукових підходів до класифікації моделей. Автором обґрунтовано доцільність вибору класифікації моделей, розроблених М. Вартовським, ґрунтуючись на принципі екзистенціальних зобов'язань, для психолінгвістичних наук, оскільки такий вектор побудови моделей не протиставляє точні й гуманітарні науки. Далі дослідником ілюстровано вибрану класифікацію шляхом побудови моделей мовної особистості різного рівня складності, які відрізняються різним рівнем взятих екзистенціальних обставин.*

**Ключові слова:** моделювання, модель, побудова гіпотез, ступінь екзистенціальних обставин, елементи й рівні моделі, гуманітарні науки.

*В статье предлагается анализ основных научных подходов к классификации моделей. Автор обосновывает целесообразность предпочтения классификации моделей, разработанной М. Вартовским на принципе экзистенциальных обязательств, для психолингвистических наук, поскольку такой вектор построения моделей не противопоставляет точные и гуманитарные науки. Далее исследователь иллюстрирует избранную классификацию путём построения моделей языковой личности разного уровня сложности, которые отличаются разным уровнем взятых экзистенциальных обязательств.*

**Ключевые слова:** моделирование, модель, построение гипотез, степень экзистенциальных обязательств, элементы и уровни модели, гуманитарные науки.

*In this article the analysis of general scientific views to models classification is described. The researcher argues and explains the reasonability of models classification for psycholinguistics, proposed by Marks Wartovsky. According to the system of classification of the mentioned scientist models should be classified on the base of the level of existential obligations, which they carry. Such a principal has advantage, because it does not create any opposition between the exact and humanitarian sciences. The author illustrates the whole models scheme of the described system on the example of lingual personality.*

*Key-words: modeling, model, the hypotheses creation, the degree of existential obligations, elements and levels of model, humanitarian sciences.*

**The statement of the scientific problem and the explanation of its actuality.** The fast development of modeling and its active application not only into mathematical or physical but also into humanitarian researches have lead to the introduction of the term «soft modeling». Its peculiar feature is that in the imitation process of different social, psychological or lingual phenomena some certain qualitative regularities, believable hypotheses, tendencies of modeled systems are being taken into account. On the contrary, in physical or mathematical researches only exact quantative principles are being regarded. The above mentioned vector has given the opportunity to start making linguistic, psychological and historical researches from the new level.

At the same time the process of modeling development can not be released to methodological permissiveness, otherwise it will provoke partial chaos in these humanitarian sciences. The famous scientist N.A. Mitin, which devoted much professional attention to modeling development, distinguished in the modeling progression process three definite stages: «1) the stage of permanent empirical material collection and its numerical processing; 2) the stage of basic models building and their formalization; 3) the stage of objective analysis of the all the built models and creation of generalized theory». Besides N.A. Mitin insisted, that all the exact sciences have already passed first two stages of modeling progress and now are working in the different parts of the third stage. On the other hand the majority of humanitarian sciences are solving their methodological problems at the end of the first or at the beginning of the second stage [Mitin 6: 12].

The practical models construction in humanitarian sciences usually faces with the following problems: a) in these scientific branches usually exists some dependence between the calculated value and the calculating procedure itself; b) in humanitarian sciences most of modeled values or features are multidimensional, they are often interconnected with many parameters; c) process of results calculation in most cases needs the usage of different scales.

The above mentioned facts give us enough reasons to declare that the analytical research of different models classification approaches will be **actual and timely**.

**The aim and tasks of research.** The principal aim of this research is to systematize and make clearer the set of models classifications which are being used in modern linguistics, psycholinguistics, philology, history etc. In order to fulfill this aim one should solve the **following tasks:**

- A) to remind the general variety of models classifications, which are popular today;
- B) to distinguish the issue, that can be regarded as the most preferable for psycholinguistics;
- C) to present the whole scheme of possible models of the chosen classification on the example of lingual personality.

**Statement of the general research material.** In our research will be used the model definition, formulated by several scientists at the end of 20<sup>th</sup> century: «Models present themselves as possible truths that are proposed. The creation of different hypotheses about objective reality is the human mean of gaining a new knowledge. Any model is making a function of mediator between the theoretical scientific language and the common sense of researcher» [Wartovsky 1: 32-50]. This definition was chosen because it provokes lesser controversial discussions.

Thereby when one speaks about a model of any object we are to imagine another object (real, sign or imaginable) which is not equal to original but is capable to carry some specific features, which are very important for the experimental part of research. That's why model is usually able to substitute the original object in the narrow theoretical and practical boundaries of some certain researches.

In the exact sciences the most important criteria of any constructed model are its completeness and adequacy. The model's completeness can be defined as the degree of compatibility of its structural elements and their references to the elements and references in the original object. From the point of view of completeness all the models can be divided into such classes: sign (image, verbal, mathematical); programmed (tough algorithmic, block-schematic); substantial (bionic).

But for most humanitarian sciences (including psycholinguistics) the above mentioned classification will not be wide applied, because psycholinguistic model at present time can hardly be bionic or tough algorithmic.

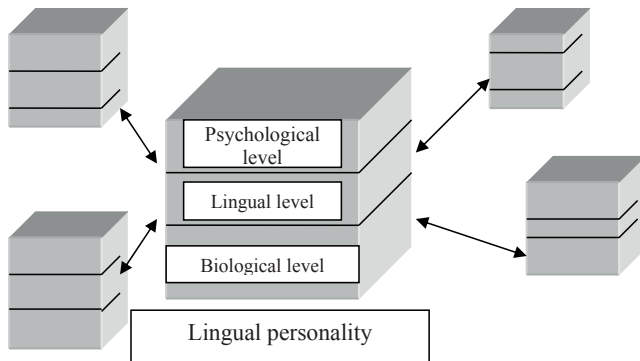
The adequacy of model is its ability to demonstrate the same behavior as the original object. Though this aspect is of prior

importance by defining the fundamental appropriateness of the model for any type of research, it gives no potential for creation a high extensive classification.

To find the appropriate solution for this problem one needed to look on the whole theoretical modeling from the principally new point of view, which should be consolidated for both exact and humanitarian sciences. This step was successfully made by Marx Wartovsky. The mentioned scientist has worked out the models classification on the base of the degree of existential obligations, which any model type is capable to carry. According to Wartovsky's classification all the created models are to be subdivided into following classes: 1. «Ad hoc analogies»; 2. «Formal representations of limited fact areas»; 3. «Models like calculating devices or mechanisms for information output»; 4. «Abstract relative constructions»; 5. «Approximate representations» [Wartovsky 1: 33].

1. «Ad hoc analogies» are simple basic models, which reflect probable but isolated similarities between the modeling system and modeled object. As the classical example can serve a physical model of our Solar system, which is well known from the school, where large plastic ball symbolizes the Sun and several smaller balls of different size symbolize planets revolving around the Sun. Such models are carrying the minimal degree of existential obligations and their scantiness is in most cases easy understandable.

In our research the Ad hoc analogy of lingual personality is presented in the form of a quadrangle surrounded by other quadrangles.



**Image1. The basic model of lingual personality – «Ad hoc analogy».**

The mentioned quadrangle is divided horizontally into three parts, every of which reflects the fundamental components of human personality: Biological level, Lingual level and Psychological level. The surrounding smaller quadrangles primitively denote the social environment.

Ad hoc analogies sometimes provoke discussions about their reasonability. The general number of objections denotes the following idea: Why one should construct such a primitive models, which reflect und summarize too few information about the original object and its characteristics? The appearance of Ad hoc analogies in the models classification has the clear practical foundation: the ambitious desire to create from the first step a complex multi-component and multifunctional model leads to high risks to endow this model with one or several features, which are not present in the original object itself. It may sound strange, but too «rich model» is in most cases much more harmful for the final results of research then the too primitive. The last thesis was confirmed in scientific works of N.A. Mitin and E.B. Starovojtenko: «The created model should not be richer in their characteristics then the original object, because it can project in modeling process negative analogies, which can fundamentally distort all the received results» [Starovojtenko 7: 21].

In most cases it appears that an analysis of first basic models can disclose new interesting information about the explored phenomenon, without the necessity to build more complex models.

2. «Formal representations of limited fact areas» have a little bit higher degree of existential obligations. This type of constructions presents the systematic ordering of already known data about the explored phenomenon and their generalized description. Such models have the dialectic claim to reflect the discovered components of the explored phenomenon in a most suitable way to build new perspective hypotheses and theories. In practice «Formal representations of limited fact areas» often appear to be good inductive generalizations, able to serve as the theoretical foundation for further science progression.

The structural model of lingual personality, created by J.N. Karaulov, is a good example of Formal representations. Besides, J.N. Karaulov is recognized as one of the founders of the term «lingual personality». The author presented his model in a tabular form [Karaulov 4: 19 ] and we have no right to change it.

Table 1

**Structural model of lingual personality by J.N. Karaulov**

Levels	Composing Elements	Functions
Pragmatic level 2 - level	Communicational aims, motives, interests and intentionalities	Fulfills the motivational function, initiating a lingual personality to create communicative situations, to carry communicative roles, to enter to different spheres of communication
Cognitive level 1 - level	Notions, ideas, concepts and precedent texts, which form semantic fields in the mind and conscience of personality.	Form in a step for step mode the lingual world's representation, which also reflects the hierarchy of values in personality.
Verbal-semantic 0 - level	Lexical units, which go into grammatical-paradigmatic, semantic-syntactic and associative relations forming the so-called verbal net.	Provides for the language-carrier normal language knowing on the level of language abilities. For researcher it provides the description of formal means of certain meanings expression.

It can be visible from the Table 1 that Karaulov's model includes three levels. Each of these levels has its own constituencies and performs some specific functions. The verbal-semantic level consists of huge number of lexical units that form different types of relations with the aim to provide the human personality by sufficient language knowledge. The first level (cognitive) consists of notions, ideas, concepts and precedent texts which are forming the lingual world's representation that plays in lingual personality functioning very important role. The highest (pragmatic) level consists of communicational aims, motives, interests, intentionalities and is to initiate any ways of lingual activity.

3. «Models like calculating devices or mechanisms for information output» usually carry the medium degree of existential obligations. The methodological foundation for the third models class lies in formal isomorphism with the set of descriptive statements and their relations in one or another empirical sphere of the science. The models of this class are good for hatching out the potential consequences of the new proposed theories. One can find such a type of models in psychological branch, known as «Behaviorism». Also several good examples can be found in Computer linguistics. But when to speak about lingual personality, one needs more theoretical and practical work out in order to be able to construct the last model type.

4. A little higher degree of existential obligations is typical for the «Abstract relative constructions». The models of this type are usually observed from the cognitive point of view or from the point of view of their methodological use for promotion the already existing theories and creating the new ones. Besides, Abstract relative constructions fulfill the eristic function of composite objects or theoretically controversial phenomena reflection. Speaking about the existential obligations, Abstract relative constructions present themselves the system of more or less probable facts and hypotheses about the explored phenomenon. But at the same time they do not pretend to reflect the objective reality. Marx Wartovsky defines this level by means of the following words: «Abstract relative constructions are the variants of truth which are more probable to believe» [М. Вартовский 1: 68].

The authors Structural-functional model of lingual personality belongs to abstract relative constructions (Image 2). The main component of this model is human consciousness. It was defined as the highest form of surrounding world reflection, which makes functional the whole construction. In common sense human consciousness is connected with all the elements, but its interaction with image world representation, lingual world representation and USC is of prior importance that was shown in the model.

At the bottom of the cognitive component are situated speaking and hearing organs of the human body and the human brain, which are fundamental biological mechanisms for any type of intellectual activity including lingual. The lingual level of the first component is represented by ontogenetic development of lingual characteristics that progress from genetically put lingual abilities to the formation of complex lingual world representation. On the psychological level is present human consciousness, image world's representation and USC (Universal Subject-Scheme Code). The USC was discovered by Russian scientist N.I. Ginkin Ginkin [Ginkin 2: 35-47], it was defined as a special code of intellectual activity, which combines the thinking and speaking processes.

The primary biological needs form the foundation of motivational component that motivate an individual for any type of physical activity. The basic biological needs are the main criteria, which distinguish live objects from non-alive. But the human individual is specific in a sense that after the satisfying of biological

needs it can produce the needs of higher mental degree like need of communication, need of art self-expression or need of recognition. All the higher needs, which are included into lingual personality, were called «activity-communicative needs» [Karaulov 4: 20]. The psychological and lingual levels of motivational component are related in the relationship of cause and effect. Activity-communicative needs of personality provoke it to form lingual aims, lingual motivations, lingual presuppositions and consequently to take part into different spheres of communication and communicative situations.

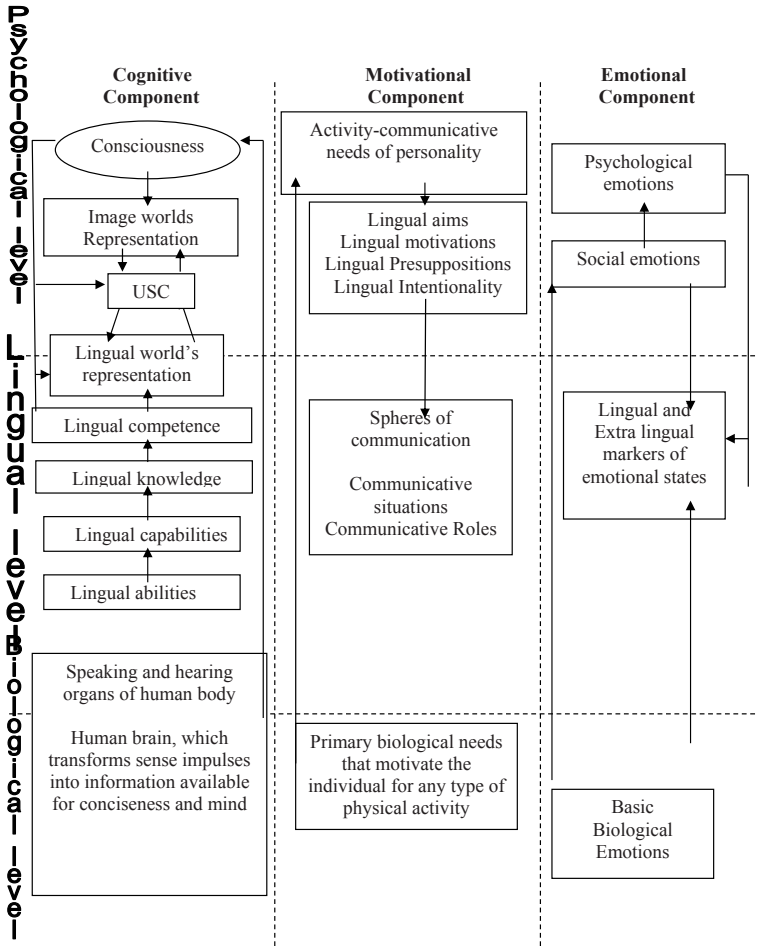


Image 2. Structural-functional model of lingual personality – «Abstract relative construction»



The third in our model is the emotional component. Emotions usually colour the objects of surrounding reality, filling it with additional personal sense. Human emotions are also able to progress from biological emotions through social emotions up to higher psychological emotions. Emotional component presents itself the emotional attitude of human personality to different spheres of the surrounding reality and finds its expression on all the level of the model structure.

5. «Approximate representations» are capable to carry the above average level of existential obligations and methodologically pretend to reflect more trustworthy image of the objective reality. Many scientists recognize these models as valid for some limited amount of selected facts. English scientist M. Hesse in one of his researches nominated them «positive plus neutral», implying that such models can be processed for further cumulative modifications in case of discovering new interesting facts about the explored phenomenon.

It was declared at the beginning of the article that humanitarian sciences have not still achieved the level of modeling progression, which would be enough for creating models of the last type.

The above described research made it possible to formulate the **following conclusions**: the models classification by M. Wartovsky due to the principal of taken existential obligations can be regarded as one of most perspective for building the empirical comparisons of methodological work-outs between the humanitarian and exact sciences; Wartovsky's classification is also suitable for making different interdisciplinary explorations; the humanitarian sciences because of several explained reasons are remaining behind in modeling development in comparison with the exact sciences.

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## ОСОБЛИВОСТІ СПРИЙМАННЯ, РОЗУМІННЯ Й ПОРОДЖЕННЯ ВИСЛОВЛЮВАННЯ

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*У статті здійснюється теоретичний аналіз проблеми сприймання, розуміння і породження висловлювання як основних чинників мовлення з точки зору психолінгвістики.*

**Ключові слова:** *сприймання, образ, поняття, значення, усвідомлення, розуміння, породження мовлення.*

*В статті осуцествляється теоретический анализ проблемы восприятия, понимания и порождения высказывания как основных факторов речи с точки зрения психолингвистики.*

**Ключевые слова:** *восприятие, образ, понятие, значение, осознание, понимание, порождение речи.*