

## КОГНИТИВНАЯ ЛИНГВИСТИКА КАК РАЗВИТИЕ ЛИНГВИСТИКИ ФОРМАЛЬНОЙ

Научная статья

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**Аннотация**

В статье описаны этапы и направления развития теоретической лингвистики в трех проекциях: традиционной формальной, современной американской и современной русской, у последней - в трех направлениях: контенсивная, когнитивная и концептуальная лингвистики. Показаны переходы от одного типа к другому и парадигматическая завершенность всех указанных программ, поскольку каузальный ряд последовательных преобразований (условие – причина – цель) закончен, и проблема нуждается в создании новой парадигмы.

**Ключевые слова:** формальная лингвистика, ментальная лингвистика, контенсивная, когнитивная, концептуальная грамматики, семантическая константа, каузальный ряд.

## COGNITIVE LINGUISTICS AS A DEVELOPMENT OF FORMAL LINGUISTICS

Research article

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**Abstract**

The paper describes stages and lines of development of theoretical linguistics in three projections: traditional formal one, contemporary American one, and contemporary Russian one, with the discussion of the latter including three schools: contensive, cognitive and conceptual linguistics. Transitions from one type to another are described, as well as the paradigmatic completeness of all programmes mentioned, since the causal sequence of successive transformations (condition - cause - purpose) has been completed, and the problem now requires a new paradigm.

**Keywords:** formal linguistics, mental linguistics, contensive, cognitive, conceptual grammars, semantic constant, causal sequence.

I am going to discuss something that is, in general, well known, even if it has not yet become fully established in the minds of many scholars and has been constantly debated as an arguable issue within the scope of scientific knowledge. I would like to address the question whether contemporary linguistics represents a continuation of the traditional approach or it is a kind of a “revolution” in cognition, as some are too hasty to claim. My answer is: here we have a good example of continuous cognition aimed at revealing the “mysteries of language” within the infinitely evolving system of transitions from the simple (external) to the complex (deeply internal) specifically in the field of language knowledge. The logical sequence representing the change of linguistic forms is given as an approximation to understanding the essence of the living language in its anthropological dimension.

Let us start with comparing the key differences existing between the formal and mental linguistics in their extreme, invariant differences, without indicating the gradations and nuances present in the works of separate researchers (in order not to increase the number of references, I am going to give below a collective summary of the distinctions, extracted from various works on cognitive and formal linguistics).

**Formal linguistics**

Perspective from the listener  
From speech to language  
From material word to concept  
“Ascending” towards categories  
Syntagmatics is central  
Language and thought are separated in the consciousness  
The form-is-given-meaning strategy  
Structuralism of relations  
Nominalism in a broad sense  
Analytical approach to language  
Formal paradigm to the word  
Focus on interpreting the meaning  
Cause as the basis  
The structure of signs  
The system of forms  
Tropes as accompanying means  
Historical projection

Cognitive linguistics  
Perspective from the speaker  
From language to speech  
From concept to word as end product  
“Proceeding” from categories  
Paradigmatics is more important  
Language and thought are united in the consciousness  
The meaning-is-given-form strategy  
Functionalism of relations  
Neorealism in a broad sense  
Synthetic approach to language  
Semantic paradigm to the sense  
Focus on understanding the meaning  
Basis as causality  
The structure of denotations  
The system of meanings  
Tropes as conceptual matter  
Philosophical realism projection

Several of the points above require further comment.

The relationship between the word (sign) and the idea is given by constituent parts of the semantic triangle; the concept of the category is based on the same provisions. The syntagmatics–paradigmatics correlation is relative, since cognitive (mental) linguistics also relies on the syntax (see below); Lev Shcherba’s speech activity and the speech act of the western cognitive scientists both presuppose a special role of the syntax. The category of the Cause in formal linguistics serves as a category connecting all linguistic relations, as the *basis* of knowledge; in cognitive science, causality is used in a broader sense and the cause in this case is only a part of the causal sequence, the latter consisting of the *basis* as the original source (Leibniz: “Everything that exists in the world has its reason.”) and the constituent elements of the Causality which are connected with it, namely, conditions, reasons and goals. The Form of formal linguistics is contrasted with the Meaning as the fundamental principle of cognitive linguistics, which emphasizes not the form but the sense that adds to the sum of knowledge. Tropes in cognitive linguistics serve as a cornerstone matter of thought: see, for instance, the conceptual metaphor of western cognitive scientists and the increased number of works in the field of metaphor research in general. Finally, the historical approach to language studies has been replaced with the philosophical understanding of the language, which now is seen as accumulation of new knowledge, preparing the ground for a change of the scientific paradigm.

Formal linguistics as a scientific study had evolved for two centuries and passed the following stages in its development:

1. *The historical-comparative* method of the 19<sup>th</sup> century replaced the purely descriptive method of school grammar; this became the *condition* for the scientific study of language with the following main task: “*how did the language itself originate?*”

2. *The structural method* of the early 20<sup>th</sup> century became the *cause* behind the development of the scientific knowledge about language; it set the task of learning “*how the language itself is organized?*”

3. *The functional method* further developed the achievements of structuralism in order to accomplish the final *purpose* of the study: to understand “*how this language works?*”

Thus, formal linguistics had gradually exhausted all the tasks set before it. All four of the causes formulated by Aristotle as ultimately possible in a movement and stemming from each other, including the underlying cause, *the basis*, namely, the *subject matter* of the study – language, had been fulfilled. The development logic kept suggesting a new turn in the process of cognition. Any new development can always be found in the depths of previous developments, and this time was no different. In particular, the *functional grammar* stage formed the *transition point* towards cognitive linguistics of a new type. *Something already in action is already in existence*; the German philosopher Nicolai Hartmann expressed this idea more emphatically: “If there is existence, there is essence, and if there is essence, there is existence”. As a result, coincidence and interchangeability of *existence* and *essence* in their development “are directed by the *shifting identities*” and, therefore, sooner or later they become *one and the same*. In other words, if something *exists*, this means that its *essence* is also present. This directly follows from the requirements of philosophical realism: *every event has its corresponding essence*. In our case, if there is a form, there is also a corresponding content (essence). So what essence corresponds to the forms of language?

Language acts in the *speech of the subject*. Then the task is to determine the meaning of the subject’s actions, and this can be best achieved from the point of view of the subject himself. Thus, the research perspective is changed: the former *reverse perspective*, from language to the researcher, has been replaced with a new, *linear* perspective, from the researcher to language. Anthropocentrism of the position reaches the uttermost limits and no longer hides under the mask of pragmatic “objectivism”. We need to gain an insight into the essence of language.

This task can be achieved through a sequence of approximations.

In one of his work, A.V. Kravchenko (Kravchenko, 2013) demonstrated how the study of language in western linguistics (exemplified by American linguistics) had walked the path “from a linguistic myth to a purely biological reality”, from a symbolic adaptation to a purely biological function of the body.

Every completed thing ultimately passes through three stages of development (the author calls them “waves”); the same happens here as well. I am going to present these stages in a comparative table, providing for now just their typological description, again without mentioning any names (the overall presentation of the distinctive characteristics in question has not yet been completely verified, so additions and adjustments are possible).

Stage 1	Stage 2	Stage 3
Objectivism of the approach	Subjectivism of the approach	“A third way”
External dualism	Internal dualism	
Analytical approach	Analytical approach	Monism (holism)
Describes	Interprets	Synthetic approach
Nominalism of the thing	Conceptualism of the symbol	Explains
Language is disembodied	Language is embodied	Realism of the idea
Computer paradigm	Cultural paradigm	Language is biological
Innate ideas	Intuition	Organic paradigm
Image	Symbol	Instinct
Replacement in a triangle	Interchange in a square	Concept as conceptum
Syntactics	Semantics	Change in a circle
Reflects the world	Expresses the world	Pragmatics
Language is <i>parallel</i> to the world	Language <i>adapts</i> the world	System within its environment
Cognition as the purpose	Knowledge as the purpose	Language is <i>transformed</i>
		Self-reflection as the purpose

Objectivism presumes understanding language outside the subject, as envisioned by Ferdinand de Saussure, “in itself and for itself”. Subjectivism maintains a close connection between language (“language is embodied”) and the subject; it exists in the subject of speech. The “third way” allows for a median line of connections: language is present in the subject but it also



signal for consolidating numerous but isolated efforts of various university scholars, who up until then had worked in that direction, mainly in the field of *semantics*, but without their own separate “flag”. Thus, *conceptology* was formed.

The year 1945 should be regarded as the date of birth of *contensive* linguistics: this is when the fundamental new book by I.I. Meshchaninov [11] was published; the book summarized the results of studies into “grammar categories”; even this school, however, was at a standstill for a while, again due to political discussions. The research work continued within the field of *functional* linguistics and picked up momentum after the publication of A.V. Bondarko’s *Grammatical Category and Context* [3] and S.D. Katsnelson’s *Typology of Language and Verbal Thinking* [5], as well as a number of other works that followed, and the creation of the Leningrad Academic Group for research in this direction. The key participants here were mostly Germanists, hence the general tendency towards a *nominalist* approach in their studies.

The preliminary date for the appearance of *cognitive* linguistics can be recognized as that of the publication by Y.S. Stepanov of a small book entitled *Semiotics* [12], but serious research in this direction started in the Moscow Academic Group headed by N.D. Arutyunova after 1986. In 1988, the first part of the multi-volume collective work entitled *Logical Analysis of Language* was published, which provided an impetus for further research in the field. This group included many Romance linguists, which explains their tendency towards conceptualism as a form of cognition typical for Romance nations.

All three schools of cognitive studies developed gradually and possess their own research roots. Contensive linguistics has developed from functional linguistics on the structural basis. Cognitive linguistics descends from the old culturological research, touching upon the problems of mentality and culture (linguistic culturology). Conceptual linguistics is connected with the semantic studies of the 20<sup>th</sup> century and is also associated with the mental research from the beginning of this century. The studies of the 19<sup>th</sup> century, for instance, A.A. Potebnja’s works, correlate to all three “waves” on the principle of initial syncretism.

Thus, the first academic school of the three, with respect to time, was *contensive* linguistics (from the word “content”), which was ahead of its time and was not appreciated; in fact, it was mercilessly discredited by its academic rivals. Contensive linguistics first emerged as functional linguistics; this is what A.V. Bondarko himself calls his research work.

The main aim of this linguistic school was to study the *process involved in the development of meaning* in a certain context (“meaning is given form”). According to contensive linguistics, *function* is an action, while *meaning* is the *content* of the signs. Meanings do not exist in ready-made form; they are formed by the subject. In this statement, we can see the first “departure” towards cognitive science. The research focuses on *semantic categories*, also known as logical *universals* (initially called “notional categories”). Since all this happens in a certain *environment*, a philosophical duality takes place: grammatical categories are seen as manifestations of the *system* (for instance, aspect, time, voice, etc.) and form the *core* of the semantic *field* of this environment (aspectuality, temporality, and functional-semantic voice, respectively). This is not an instance of realism, as one might have imagined taking into account the corresponding pairs like *aspect* – *aspectuality*. *System* and *environment* here are equally material in the *conceptual* expression of the material world, which is still a manifestation of philosophical nominalism. The collective total of features is close to those that we find in the “first wave” of western cognitive studies, which is close to contensive linguistics also in a number of secondary characteristics. Interestingly enough, representatives of this school were among the first critics of N. Chomsky: the similarities between the two approaches helped to see more clearly the shortcomings of the American version.

The similarity of initial mental approaches and research goals for all representatives of contensive grammar lies in the following: 1) analysis that is primarily aimed at studying the *content* of the *categories under consideration*; 2) a correlation between the content and the linguistic form that aims at determining *the influence of the form* on the representation of the identified meaning; 3) a tendency to study language means at different levels.

“Contensive typology” is still not a well-established linguistic discipline. Its foundation is a system of *notional functions* (“categorization of functions”), which is based on speech activity and which manifests itself in an utterance, specifically in a sentence. Representatives of contensive linguistics emphasize the “primacy of syntax in language and logic on the basis of valency types”, and this determines the scope of “cognitive categories” (here and below, Katsnelson, 1972). They study the process of *expressing* the thought in speech, which is distinctly contrasted with the language as a means of *forming* the thought. They speak about three stages of thought formation, and their dominant interest in the language form determines their main thesis: “*The form is given meaning*”. This is the position of the “listener”, which reveals the nominalist tendency in research. The *meaning* is understood as expression of reality; the meaning and the word are autonomous, since “the word itself does not say anything about real facts”, and every word correlates to its “denotation” (=referent, thing) through the meaning (=the signified). The basic difference is seen as the *semantic* opposition in the presence of *formal* identity of the lexical meaning and the notion; the first reflects the specific national understanding, while the second reflects the “universal” one. They distinguish between *presentive* (referents) and *attributive* (the signified) meanings of words; the first type is represented in presentive words (*a house, a table, etc.*), while the second type can be found in abstract words (*white, whiteness*). Following A.A. Potebnja, they argue that “abstract nouns are a special way of representation in language”, when an attribute is conceived as independent from any specific set of features. Presentive meanings are associated with notions, while the “lexical” meaning (the signified) correlates to symbols. They speak about “deep cognitive structures” and “hidden categories of language”; a specific research unites all three cognitive categories: language and *cognition* (understood as *co-knowledge*) are represented as “aggregates of *knowledge* about the world” through *cognition* in categories and notions that “reflect the object originally and in contradictions”. There is an interesting statement about image-breaking notions such as *the white house*: “attributive meanings perform the functions of actualization”, which is correct. Thus, the replacement of notional *forms* of the concept with notional *function* in speech, results (among other things) in negation of *general* meanings in language and their replacement with *central meanings*.

Cognitive linguistics in the narrow sense (in a broad sense, all three schools fall into cognitive studies) examines the concept not for the purpose of *cognition* (as contensive linguistics does) – it is its tool, but with the aim of achieving *knowledge*, within the notional environment of the *discourse* – unlike conceptology, which studies *conceptum* of primary sense within the concept (“the generic element” of the semantic approach). In this way, conceptology is closest to the “third wave” of

American linguistics, which exclusively studies the initial point of the development of meaning that “starts up” this development.

As a research field (being a type of epistemic cognitive science), cognitive linguistics is broader than conceptology, since it does not limit itself to just the field of language and extends to all areas of verbal and cogitative activity, which is clearly seen from its focus on *knowledge*, which can essentially be obtained in a variety of ways. “Unobservable mental entities” are ultimately nothing else but “general human universals”; therefore, the predominant interest focuses on the *concept* – the notional level of knowledge, enriched with additional meanings (for instance, as a result of metaphorization), which corresponds to the views of conceptualism. In this sense, however, cognitive linguistics is narrower than conceptology which does not stop at the figurative-conceptual side and also studies the figurative-*symbolic* world of consciousness. The fact is that our contemporary consciousness is forever subordinate to the *concept* as a materialized form of “primary sense”; concept is at the centre of knowledge, and obtaining knowledge is the main goal of cognitive science. Hence the general focus on all real relationships with the world – the linear perspective; the colour as the shade, and not brightness or intensity; the action limits of sound and any sensory perception in general. *We live in the world created by our mind*. Science submits to this pressure, forgetting about the past achievements gained exactly with imaginative perception and traditional symbols.

Let us now describe cognitive linguistics in its comparison with contensive and conceptual linguistics.

Unlike conceptology, cognitive linguistics, in essence, does not need ontology, as it is interested only in the “process of conceptualization” of the external world (corresponds to the “second wave”; see the works by R. Langacker). Everything that a cognitive linguist has to deal with is the “world unconsciously created by the thought”; this is the world “designed by consciousness”. This is essentially American instrumentalism in its final form, with ontology being replaced by epistemology (the modern form of the theory of knowledge). In some cases [4], cognitive linguistics is simply reduced to the *hermeneutical* interpretation of the text. This is an obvious narrowing of cognitive linguistics in favour of the passive grammar of the listener. Broadly speaking, the main postulates of cognitive linguistics as a separate approach come down to the following three [12]: 1) studying *not the observable* actions, symbols or strategies, but their mental counterparts, 2) in connection with their real notional content, 3) based on the influence of the cultural environment which shapes the human being.

A conceptualist firmly believes in the existence of central meanings, which are rejected by representatives of other branches of cognitive science. The central meaning is always present in the conceptum and is a permanent element of the concept; for instance, in the concept of the HOUSE, this central meaning is “abode Cognitive linguistics rejects the concept of central meanings, suggesting instead a network of word *meanings*, which in their hierarchy create the *sense* of the sign. This school limits itself to the autonomous knowledge of events, directly connecting them with language, while conceptology studies the causal sequence of events, presenting them as the facts of consciousness (*the facts* are conceived, as opposed to the real *events* which they express by reflecting them).

Essentially, any distinguishing feature, whether it be “waves” or types, is not absolute, since this is always a feature that is transformed and developed as a result of a clash between the schools of thought. Let us take for example one of the most important features of speech activity – the syntactic feature. Syntax is the focus of research for the first wave and its grammar (Chomsky and his followers); it is further developed by the second wave (cognitive science, for instance, G. Lakoff and especially R. Langacker); in the third wave, it represents an active component of the “environment”. Our contensive linguistics is based on syntax and proceeds from it, while for cognitive linguistics it is just a supportive factor. However, one should not forget that the first Humboldtian “mentalist” A.A. Potebnja paid a lot of attention to syntactic questions, while A.M. Peshkovsky and A.A. Shakhmatov created two versions of formal syntax, both implicitly “mentalist” in their essence; L.V. Shcherba specifically recognized the concept of speech activity, which in the West is known as the speech act.

The following question then arises: what was the breakpoint of the dominant formal tradition that led to the transition from formal to mental linguistics? When did the mainstream development of linguistic knowledge come to the conclusion that the Text as a form was no longer sufficient, and the term “discourse” appeared as the mental counterpart of the real “text”? Text and Discourse have a certain thing in common – their notional unity. However, while Text is *logically* sequential, Discourse represents a kind of notional *swirling* fully consistent with the meaning of the Latin *discursus*: a running to and fro, a running about, a swirling motion; expansion, branching.

According to the “best to date definition of discourse” (Y. S. Stepanov), given by V.Z. Demyankov, “discourse is an *arbitrary* text fragment consisting of more than one sentence or one *independent* part of the sentence... *It is centred around* a certain key *concept*; it creates an overall *context*..., being determined ... by the *world* that is *shared by the creator and the interpreter* of the discourse and that is “*built*” in the course of the discourse *development*, - this is the view of the “ethnography of speech” (quoted after Stepanov, 1995, p. 37; emphasis added).

The key words used here - the *text fragment, arbitrarily selected by the speaker, the shared world that is being built and the concept which determines the meaning* – form the semantic triangle system, in which the idea is replaced by the concept, the sign is replaced by the text fragment, and the thing is replaced by the shared world. The ultimate goal of discourse *development* is to determine the national *ethnography* of particular speech on the basis of the texts featured. We can see a certain similarity with the process of elaborating a semantic constant, in which the text fragment is the *condition*, the shared world is the *cause*, and the concept is the *purpose*. In this case, we should agree with the interpretation given by Y.S. Stepanov, who defined discourse as “language inside language”, represented in the *social* givenness and equal to the *style* in the Russian grammatical tradition. Discourse is “a *different* language with its specific rules of truth and its own etiquette” built on the plane of the text – “a possible (*alternative*) world” in the full sense of this logico-philosophical term. Discourse is a new feature in the image of Language as it appeared to us by the end of the 20<sup>th</sup> century” (Stepanov, 1995, p. 37). In other words, Discourse is a reflected form of the text in its mental interpretation, and in the 1970s, “Anglo-Saxon linguists realized that ‘discourse’ is not only the ‘givenness’ of the text but a certain system behind this “givenness”, particularly the grammar system” (Stepanov, 1955, p. 37). Indeed, the term *discourse* is connected with the transition in research from the form to the meaning, when the category of Meaning assumed its unique representation of “conceptual unity” – both in form and in content at the same time. Thus, contensive linguistics proceeds from the Text, while cognitive linguistics proceeds from the Discourse.

A conceptualist sees *conceptualization as a living process that consists in generation of new meanings in the substantial forms of the concept*. For a cognitive scientist, however, it is something that results from generalization of things within the mental frame, while the conceptual metaphor is no more than an *analogy* used in comparing objects with similar meanings. A conceptualist uses the “descending” principle (from the concept to the image), while a cognitivist prefers the “ascending” path (from the image to the concept).

The “descending - ascending” paths should be clarified in more detail.

The Nonpossessor Nilus of Sora, when outlining his concept of cognition at the very end of the 15<sup>th</sup> century, in the spirit of medieval symbolic thinking, expressed an idea that in the 20<sup>th</sup> century and at a higher conceptual level was voiced by cognitive science: the key concepts of cognitive linguistics are essentially *conceptualization* and *categorization*. Nilus, a simple soul, express this idea the Russian way, with an emphasis on ethics: “descending is better than ascending.” One would wonder what connection can be found between these two statements divided by half a millennium. Actually, they have a lot, if not everything, in common – but in terms of the mental aspect and not only in the verbal form of expression.

The two positions essentially coincide. What I mean here is the *ascent towards the notion (categorization, in terms of contemporary linguistics)*, shaping the conceptual hyperonyms of modern literary languages, and the *descent* from the abstract notion to the *image* (penetrating into the symbol of the conceptum; finding the “grain of primary sense”, i.e. *conceptualization*), preserving the metaphoric system of “natural speech”. This opposition, dating back to ancient times when the simplest equipollent oppositions were still widely used, is highly significant. This is not just a logical *opposition* but a representation of the *antinomy of knowledge*, which in its dialectical connection will probably never be resolved.

Contrasting of the two approaches has now achieved the level of an opposition. At the level of the communicative act, this is the opposition between the speaker and the listener, at the logical level – the opposition between denotation and sense, at the ethical level – the opposition between consciousness and conscience, which once (in the times of Nilus) were seen as something whole, as one and the same, etc.; ultimately, the opposition between the essence and the phenomenon – the opposition so significant for a realist. Hence another important difference between the designated cognitive approaches: *contensive linguistics* is *typological* in character, while *cognitive linguistics* is *comparative* (it is within cognitive science that concepts from different languages are studied in comparison); *conceptology* is *historical* in its essence: it does not compare different languages in space but studies its native language in time.

In general, the correlation between all the described approaches in the history of Russian linguistics can be represented in the following way.

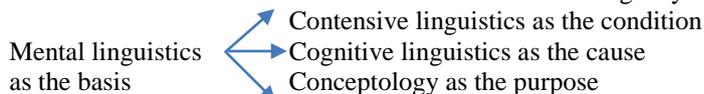
<b>Linguistics</b>	<b>formal</b>	<b>mental</b>
Condition (how?)	comparative	contensive
Cause (why?)	structural	cognitive
Purpose (what for?)	functional	conceptology

From the point of view of conceptology, it is not the notion, as perceived by cognitive linguistics, i.e., it is not the *operative*, the currently identified representation of the *conceptum*, but its final, *fundamental* representation in the form of a symbol that completes the chain of the consecutive causal development experienced by the component units of the *concept*, which then requires new bases to be found. The new bases, in their turn, are found in the discursive sequence of arbitrarily selected texts. “Thought is in essence symbolic... The human is sentient due to his ability for *symbolization*.” (Benveniste, 1974, p.29)

All these approaches are in complementary distribution, and each of them is responsible for its own task. *Contensive linguistics* studies the *notional meaning of the texts*; *cognitive linguistics* is interested in the enrichment of the concept with a new meaning (*new knowledge*) given in the *discourse*; *conceptology* is trying to unravel the substantive mystery of the *concept* through its primary meaning.

Thus, here we have described the development in the science of language (the basis - *what?*) within two traditional branches of linguistics – formal and cognitive, working in the process of cognition in order to obtain accurate and reliable knowledge. The aggregate answer to all four questions of the Aristotelian causes, described in terms of the semantic constant, projects the acceptable development paths for contemporary linguistics. Ultimately, the logical sequence in the change of linguistic forms is given as an approximation towards understanding the *essence* of the living language in its anthropocentric dimension. The “three waves” of formal linguistics in their *analytical* dualism have been replaced with the “three waves” of cognitive linguistics in the *synthetic* unity of meanings. There has been a change in the research approach: from the passive “language” of the listener to the active “language” of the *speaker*.

The semantic constant can be constructed in the following way.



Thus, tentatively speaking, the first wave of research determined the mental component of the linguistic sign in *cognition*; the second wave developed conditions for the enrichment of this sign with new *knowledge*; the third wave identified the “starter mechanism” for the increase of new knowledge in *consciousness* (in the neural connections of the brain or in the hidden conceptum). From this standpoint, the described “waves” in the development of American linguistics correspond to the following “waves” of Russian linguistics: the first wave corresponds to *contensive linguistics* with its notional categories; the second wave corresponds to *cognitive linguistics* with its interest in the metaphor; the thirds wave corresponds to *conceptology* with its focus on the mental mechanisms that start the notional forms of the concept, and in our case – the conceptum. Thus, three paradigms are formed, each consisting of three components: *formal* linguistics (*the what-linguistics, the basis*) is represented by *comparative linguistics (the how-linguistics, the condition)*, *structuralism (the why-linguistics, the cause)* and

functional linguistics (*the what-for-linguistics, the purpose*). In mental linguistics (*what?*), these formal components find their correspondence in *contensive* linguistics - in cognition (the condition, *how?*), cognitive linguistics - in knowledge (the cause, *why?*) and conceptology in consciousness (the purpose, *what for?*). The first is *looking for* the concept in the text (objectively *thing* - nominalism), the second – in the discourse (subjectively in the *idea* - conceptualism), the third – in the sphere of concepts (in *signs* connecting things with the idea – “the third way”; realism). The first proceeds from “innate ideas”, the second - from instinct, and the third – from intuition (*insight, in mental terms*). In point of fact, all three positions have completely filled the possible paradigm of real relations within the semantic triangle, the synergistic triad, the semantic constant and the general category of causality. A fourth position is essentially impossible, since the causal sequence of consecutive results is already filled. Aristotle, in his doctrine of *the mean*, asserts the *four-part composition of causes*, which taken together appear as *the entirety of the organism*, as distinct from the *mechanism* – “just like it happens with the four main principles of universal ensoulment that all coincide in one indivisible point” [10, P. 345].

The sequence in which linguistic features manifest themselves is organized as a sequence of substantive forms of the concept: *image - notion - symbol - image - notion - symbol*. The sequences in which logical features manifest themselves is the following: *concrete - abstract - concrete - abstract - concrete - abstract*. When the logical and linguistic features are combined, for instance, in the cognitive sector: *contensive* linguistics expresses the abstract image as a reflection of the thing (nominalism); cognitive linguistics expresses the concreteness of the notion as an expression of the idea (conceptualism); conceptual linguistics expresses the abstract meaning as the embodiment of the sign (realism). Combining the logical and the linguistic is the basic feature of cognitive science; the logical sequence of transitions from one state to another is the principal characteristic defining the development of the research method that is guided by the change (but not the replacement!) in the development of research paradigms. Such is the sequence of the described methods in their *invariant* forms (works of separate scholars sometimes combine several approaches).

Thus, in the most general terms, the development of linguistics follows the “law of four causes”, which are connected with the consecutive change of results.

The emergence of comparative-historical studies of language, by answering the “*what is this?*” question, formed the *basis* of linguistics as a science; structural linguistics, by answering the “*how does it work?*” question, became the *condition* for further development of language studies; functional linguistics, by answering the “*why does it work?*” question, created the *cause* for the development of a new approach – cognitive linguistics, which has removed the opposition between the linguistic and the cognitive, and this, in the most general terms, provided the answer to the “*what does it work for?*” question – the ultimate *purpose* of the preceding movements of the science.

Today scientific development happens so fast that within one century, or even within half a century, linguistics in different countries has progressed significantly, and now we are able to identify the steps that were made in the field of linguistics almost simultaneously. *Contensive* linguistics, studying surface *notional* categories, answers the “*what is this?*” question and forms the *basis* of cognitive linguistics. Cognitive linguistics (in the narrow sense of the term), focusing on the figurative and the metaphoric side of language, answers the “*how does it work?*” question and creates *conditions* for the development of new research schools, particularly, cultural linguistics. Conceptology gets the insights into the essence of language, speaking about the “engine” driving the linguistic forms (formerly represented in the vague concept of the “inner form”) and answering the “*why does language develop?*” question. Now we are faced with the need to answer the fourth question, “*what is all this for?*”, and to define the ultimate *purpose* in the development of language. Answering this question, however, will take our science to a new level of development, with its own answers to the questions posed.

After “generating” a complete *organism* in the current development of ideas, “the history stops its flow.” *A change in research paradigms is required*. A part of the new paradigm manifests itself in conceptology – through the introduction of the “fourth dimension”, namely, time, in an attempt to answer the “*what for?*” question. It can be assumed that this new paradigm is going to be neither flatly formal nor dimensional like cognitive linguistics but rather a stereoscopically represented synthesis of its spatial and temporal qualities, states and units.

Science is cumulative; it diligently collects all its achievements and sometimes employs old methods, depending on the question that needs to be answered. What is more, starting scholars sometimes resort even to prescientific *collecting* methods, such as used by comparative and descriptive linguistics. Theories eventually condense into methods, and these methods are used by everyone, as they see fit. In a higher sense, however, in the philosophical sense, the movement of linguistic methods described here reflects the onward progress of human consciousness towards getting an increasingly deeper insight into the mysteries of language. The only requirement for fruitful research is the opportunity for a scholar to independently search for such new turns in scientific investigation which, through combined effort, can lead to the next turn in the development of our science.

#### Конфликт интересов

Не указан.

#### Conflict of Interest

None declared.

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