

Cognitive Principles and Mechanisms of Text Understanding

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ABSTRACT

The rapid development of text linguistics, which marked the second half of the 20th century, is associated with a whole range of modifications of linguistic values, tasks and program settings. We can talk about the atmosphere of a certain "boom" around this area, which some linguists no longer consider an area, but the foundation, the basis of linguistics as a whole. In the modern interpretation of the text, researchers bring to the fore questions of the communicative plan, the tasks of the conditions for effective communication, which provides an unambiguous interpretation of the units of the created text, as well as the most complete understanding of the text by the recipient.

The relevance of this article lies in the prospects of the cognitive direction in linguistics, in particular the study of the cognitive foundations for understanding the text, since the text is not just the subject of an increasingly lively discussion by researchers working in various fields of the humanities. The text is becoming more and more one of the ways of representing linguistic communication as a process.

Keywords: text understanding, cognitive aspect, cognitive limitation, mechanisms for activity, background knowledge.

INTRODUCTION

When considering a text in a cognitive aspect, an important role is played by cognitive principles, cognitive attitudes and cognitive restrictions on the organisation of information in the text, on the distribution of information in the text, on the sequence of its presentation, and so on (Kubryakova, 1997).

In the organisation of discourse as a complex cognitive structure, the effect of two cognitive limitations is most clearly manifested. The first of them is related to the order of mention, based on the principle of iconicity (Givon, 1992). This principle is based on the correspondence reflected in the language between the representation of the world and the representation of this representation in the language: if sentences encode chronologically ordered events, then the sequence of sentences corresponds to the chronological order of events. For example: Came. Saw. Won. Researchers of this problem believe that iconicity as a cognitive principle of organising information is manifested in the presentation of events in the text in the natural order in which they actually took place. In large-scale texts, textual units that are more voluminous than individual sentences are ordered; in an instructional text, one can expect that information to be organised in a strict sequence of operations to perform a certain action; in a scientific text – in a logical order; in a narrative – in a chronological order of events, and so on. The spatial, causal, chronological or socially determined ordering of the elements of the text reflects the ordering of the perception of reality (Kubryakova, 1997).

The second cognitive constraint has to do with the separation of "given" information (i.e., that which the speaker assumes is known to the hearer/addressee) and "new" information (i.e., that which is unknown to the addressee). They propose to consider the apperceptive principle of assimilation of

knowledge as a cognitive mechanism of information distribution on "given" and "new". Old information can belong to the fund of general knowledge, is included in the informational thesaurus of a person, or refers to the information transmitted in the previous fragment of the text (Kubryakova, 1997). The simplest way to convey new information is to introduce it in relation to something already known. Apperception, as J. Miller (1990) writes, is used as a generic term to describe those mental processes, with the help of which the incoming information corresponds to an already constructed conceptual system. At the same time, the addition of new information to the already known one forms the basis of the construction of the text concept in the process of its understanding and production. The cognitive function of dividing information into "given" and "new" is to support discourse coherence (Kubryakova, 1997). Information sharing acts as a mechanism for activating the knowledge of the addressee.

The cognitive limitation associated with the separation of this new information is also explained by limitations on a person's ability to keep certain volumes of information in the focus of attention (Chafe, 1987). Accordingly, it is necessary to maintain a balance in the working memory between the thematic information as the starting point of the message, and the rhematic material that should be integrated into the already established topic. This limitation creates prerequisites for optimal processing of information in the text.

DISCUSSION

Cognitive principles of information organisation are also related to the greater or lesser degree of adherence of the text to its prototypical sample. Orientation to the text prototype requires the addressability of the text, the need to take into account the knowledge and assumptions of the addressee, the conventionality of types and genres of texts that function in this sociocultural language community

(Kubryakova, 1997). This cognitive principle acts during the implementation of the plan as a cognitive structure of the representation of knowledge about the typical organisation of the text. R. De Bogrand (1981) and V. Dressler (1981) connect traditionally different types of texts with cognitive structures: description with frame, narration with scheme, argumentation with plan.

An important concept of cognitive linguistics is understanding, i.e., the definition of cognitive activity (variety of speech activity), the result of which is the establishment of the meaning of some object (usually text or discourse) (Kubryakova, 1997). From the cognitive point of view, all the variety of concepts of understanding is reduced to nine groups, in which one of the tasks of understanding, solved by one of the modules of the human cognitive system, is thematised. The procedure performed within each module is conditionally called interpretation.

Understanding Modules in Cognitive Science

Researchers in the field of cognitive science highlight the following modules of understanding (Kubryakova, 1997):

- 1) **Use of language knowledge.** At the same time, the degree of confidence in the knowledge of the language of the utterance (not always adequate to the real competence in this language) and the degree of "linguistic fixation" are considered variable characteristics inherent to the individual within the framework of this module (Kubryakova, 1997). In respect of the latter respect, the following poles are opposed: a rigidly established code that excludes any new characters, and a language completely unknown to the interpreter. Real understanding takes place on one of the intermediate stages.
- 2) **Construction and verification of hypothetical interpretations.** Understanding speech or text, we don't wait until the sentence ends to start

analysing it, meaning that understanding makes analysis parallel to linear perception of speech. Adequate understanding is connected within the framework of this module with the recognition of true hierarchies in the statement, with the rethinking of what was previously said and understood, as well as with the construction of interpretations according to the scale of plausibility.

- 3) **"Mastering" what has been said.** According to the statement, a model world is built for which "exclusively internal resources of the interpreter, and not elements of someone else's internal world" are used (Kubryakova, 1997). The model world, according to V. Z. Demyankov, can exist in parallel to the inner world of the interpreter, and sometimes completely fill this inner world when the reader mentally immerses himself in the events of the book. Connections established in this model world allow "to various degrees to easily and efficiently summarise and adjust it, using the "voltage field" created along the way, reflecting the hierarchy of its elements" (Kubryakova, 1997). Thus, understanding can be realistic or fantastic in different degrees, and the contrast between the model world and the inner life of the interpreter can be different.
- 4) **Reconstruction of the author's intentions**, which is carried out in two directions (Kubryakova, 1997):
 - establishment of what is meant and possibly expressed inadequately (for example, due to weak competence in language, lack of training in expressing feelings, etc.);
 - recognition of the author's strategic plan.In both cases, the interpreter's microtheory about the intentions (goals and motives) of the author is built (Kubryakova, 1997).
- 5) **Establishing the degree of discrepancy between the internal and model worlds.** The ease of understanding is

determined not only by the amount of funds spent on its achievement, but also by the tasks of communication. This module consists in the author's choice of language tools to achieve comprehensibility. The task of the interpreter within the framework of this module is similar to maintaining a card index.

- 6) **Establishing connections within the model and internal worlds** is carried out by constructing the voltage field within the model and internal worlds. Such relations are understood differently in concrete interpretation. In borderline cases, connections may be either outside the main focus of attention, or in this very focus. Accordingly, the variable background and focus of understanding are distinguished. The background is created "as a result of embedding with the model world of unconscious presumptions of the interpreter".
- 7) **Correlation of the model world with immediate perception of reality.** Such knowledge changes usually, not occasionally. This module is characterised by "variable lability, mobility of the presumptive interpreter as an individual" (Kubryakova, 1997). In contrast to the fifth module, here the interpreter is asked whether the information in his card file corresponds to the truth.
- 8) **Correlation with the line of behaviour.** "Unspoken" and "spoken" answers are two of the many possible types of direction of understanding. Other types include: manifestation of the interpreter's knowledge of the discussed question, the ability to remember the meaning of the remarks addressed to the interpreter, and the ability to ask questions. The productivity of understanding as a variable characteristic of this module consists in the degree of interweaving of different orientations within the framework of one and the same act of interpretation.

- 9) **Choice of "tonality" or "key" of understanding.** Since modules interact during understanding, their monitoring and correlation is necessary. The "key" of understanding ensures "the integrity of the result, and determines the interaction of modules during a separate episode of understanding, which can be more or less long" (Kubryakova, 1997).

Classification of Means of Activating the Reader's Background Knowledge

U. A. Karpenko (1997) develops the idea of further understanding of the text and develops a classification of means for activating the reader's background knowledge – considering them "the most important concepts for harmonising communication between the addressee and addresser". According to U. A. Karpenko (1997), the reader's background knowledge – stimulates the perception of a literary text and is designed for a generalised recipient. The addressee factor, in her opinion, is certainly present, but due to the impossibility of an identical cognitive level of a linguistic personality for all readers, the addresser activates certain background knowledge of the addressee.

Although all the reader's background knowledge – are aimed at the same goal – understanding the foregoing, they function in different ways. U. A. Karpenko (1997) divides them into five groups on the basis of the specifics of the functioning of the reader's background knowledge:

1. Communicative – concluding sequence, set expressions, general remarks, folklore forms, an appeal to the reader or an expression of a wish.
2. Structural text – including opposition, chain, repetition, tense of the verb and horizontal.
3. Mental – including presupposition, association, reference word and clue.
4. Situational – including the realities of the era, national characteristics and social status.
5. Sound – including alliteration and assonance.

It should be noted that the means of activating the background knowledge of the reader can be considered as universal concepts of culture. Means of activating the background knowledge of the reader create the prerequisites for an adequate interpretation and understanding of the text by the reader.

CONCLUSION

Thus, it can be concluded that the interaction of the above understanding modules allows repetition in solving the same tasks, parallelism of operations and dissonance of different modules, incompatibility or harmony of "understanding styles" (as a special case of a person's cognitive style) inherent or not inherent in a particular person. In the process of interpreting the text, we compare the model world with our own inner world. The model world, one's own inner world and stock of knowledge are corrected as a result of correlation with each other. The result of this correlation orients us both in verbal and non-verbal actions. Interpretive operations or cognitive procedures are the construction and verification of hypotheses-anticipations. The interaction of modules determines different tonalities of understanding, which, in turn, regulate further understanding.

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