International Journal of Arts and Humanities: ISSN-2360-7998 (Print) and Open Access: DOI/ijah/10.54978
Abbreviated Key Title: *Int. J. Arts Humanit.*
ISSN: 2360-7998 (Print) and Open Access
Volume-13 (Issue): 1, January, Pp 1-4, 2025

Short Communication

Conceptual integration, meaning, and understanding

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It is not difficult to understand us. As long as we can understand.

Abstract

Conceptual integration is the underlying cognitive process through which man can join up individual ideas, solve contradictions and represent meaningful knowledge. This elaborate process involves several dimensions, including semantic integration, epistemic integration, and cognitive integration. This paper will not only review the existing literature to explain how conceptual integration works, its connection to understanding, and the conditions under which it may or may not take place, but it will also analyze the topic in depth. This study will delve into the subject of cognitive biases, look at the effects of context on concept integration, and investigate the relation between the process of conceptual integration itself and other higher cognitive functions viz. attention and motivation. Therefore, this study is expected to fill in the missing gaps in the knowledge theories and at the same time it will also pave the way for cognitive development *by showing the students how they are constructing and polishing their mental models of the world.*

Keywords. Conceptual meaning, understanding, meaning integration, artificial intelligence

There are two main means of structuring knowledge. 1) Conceptualisation of knowledge, 2) Categorisation of knowledge. Gilles Fauconnier and Mark Turner came up with the theory of conceptual integration, which is also known as the "conceptual fusion theory," at the end of the 20th century. It has been very helpful in settling many controversial issues in linguistics, such as understanding problems, especially when it comes to studying long-awaited issues in text comprehension.

The main essence of this theory is that cognitive operations that occur in the human brain and combine language and thinking can create different meanings. These range from the simplest meanings and concepts to the most complex theories. But such concepts, which seem simple to us at first glance, are actually not so. When we speak, think, or even hear, we do not understand the essence of what complex operations are taking place in our brains.

It is known that language and thinking are interconnected through 3 types of reflection-description (in J. Fauconnier and M. Turner this is explained as “mappings”). The first is a projection description, the second is a pragmatic-functional description, and the third is a schematic description. It is on the basis of the mental field that the Fauconnier-Turner pair conditioned the emergence of a unique theory in linguistics—the theory of conceptual integration. The essence of this is that conceptualisation is mainly the process of understanding and comprehending information that leads to the creation of concepts.

The theory of conceptual integration helps us understand the main ways that people think about language. These ways of thinking are also based on a certain scheme that works at different levels of abstraction. This scheme also combines the output space (which the Fauconnier-Turner pair calls "input spaces") and the blended space ("blended space").

All of these represent the "mental space." All of them (the mental space) also belong to conceptual integration. So, what can be the role of conceptual integration in understanding each other, in the comprehensive understanding of the information they read and hear? Because just as our daily life is diverse, the information received during the day is also diverse, with various genre

characteristics. In literary, scientific, political, and academic-educational texts, we find information that is useful, beautiful, and instructive. But in informational and advertising texts, we find all of these types of information from a practical point of view. The new meaning is created as a result of the joint performance of a complex task of three mental operations—imagination, integration, and similarity. The difficulty in studying the processes of conceptual integration is that the mentioned processes exceed the boundaries of our consciousness.

As can be seen from this brief information, the role played by the issue of conceptual integration in the understanding and comprehension of the text is irreplaceable. It is precisely because of this importance that the mentioned issue is addressed from time to time that its relevance is determined.

It is known that reading and understanding, writing and understanding, and listening and understanding also play an important role in the educational process. All of these processes are such mental processes that interactive activity occurs between the person performing the action and the text (reader, writer, listener). We fully understand the text when we have various skills and habits to navigate it, localise information, feel its spirit, and reconcile events. Reading or listening without such qualities will only yield a superficial understanding of the text.

By participating in the communication process, we sometimes understand what is being said, and sometimes we ourselves create the text-discourse. In the first act, our main goal is to understand the ideas expressed in the language. Language is a means of embodying ideas. However, the knowledge used during the coding of language is not limited to our knowledge about the language. In addition to our knowledge about the world, the social context of the text, the ability to convey information in memory, planning and managing discourse, and other aspects also play an important role here. At this time, none of the existing forms of knowledge are more important than the others in the process of understanding. None of them is given clear priority. The only way to fully understand what language communication is all about and what kinds of semantic results can be achieved through everyday language use is to study the ways people interact with each other and use all of their knowledge.

The study of knowledge during language communication is a cognitive science that is studied as one of the main directions of the field. Since the mid-70s, "cognitive science" began to be developed as the processes of a person's collection, use, and assimilation of information. It is no coincidence that one of the main issues of psychology found its solution in cognitive psychology: human behaviour is determined by his knowledge. Knowledge here also plays a decisive role in the system of artificial intelligence. Here, the very concept of intelligence is often associated with the ability to "use" the necessary knowledge "when appropriate."

In many studies on artificial intelligence, the main goal of the general theory of language is considered to be the explanation of the mechanism of natural language, the mechanism of its understanding. Undoubtedly, the basis of such a model is the interaction of various types of knowledge, and linguistics no longer has the "sole authority" in the development of a general model of language. The development of such a general model of language can only be solved within the framework of all cognitive sciences.

Despite the various levels of research devoted to the study of cognitive aspects of language, many issues remain open to resolution. However, two main problems are most often discussed in recent years' research.

1. The structure of the transmission of various types of knowledge.
2. The means of conceptual organisation of knowledge in the process of understanding and the construction of language knowledge.

The transmission of certain knowledge during language communication is a very complex and controversial issue. Knowledge expressed in explicit form is only part of the general knowledge base. The storage of information in this knowledge base is not static but rather a self-generating and self-regulating system that constantly moves and changes on the basis of new information.

The basis of the knowledge base is formed by at least the following components:

1) knowledge about the language; a) grammar (together with phonetics and phonology), supplemented by lexical semantics; b) knowledge about the rules of language processing; c) knowledge about the principles of speech exchange.
2) Extralinguistic knowledge: a) knowledge about the context and situation, the addressee (the goals and plans set by the addressee, his perception of the speaker, the circumstances); b) knowledge about the general background information (about the world), events, situations, actions, and processes.

The issues that form the basis of knowledge have been sufficiently studied. The difficulty mainly arises in clarifying the appropriate structure for the transmission of existing knowledge. For example, how does the structure intended for the transmission of pragmatic information differ from the structure used for the transmission of syntactic information? More precisely, is there a special level of syntactic representation? What concepts does a person rely on in the process of understanding language?

The list awaiting this solution can be extended. Over the past few decades, one of the most important ideas in the theory of cognitive learning has been that the processes that happen in human memory are inextricably linked to each other. This includes how we construct and understand language. In fact, understanding a new situation first involves finding a similar situation in memory. In order to analyse and perceive new information, we have to turn to the experience already

accumulated in our memory. This search is based on the fact that the analysis and perception of new information are similar to the structure used to organise memory.

The fundamental importance of past experience in memorising and understanding our information was first studied by F. Bartlett (1932) in the 30s of the last century. While studying the features of understanding texts, he came to the conclusion that memory never has a real character. During the re-creation and imagining of texts, their form (the text) often changes in memory depending on the social environment. He used the concept of "scheme" for the purposeful storage of information in memory. Under this "scheme," he understood the active organisation of past experience.

One of the structures for imagining high-level semantic information, and the simplest, is considered a scenario. (This is discussed in more detail in A.A. Abdullayev's work "Discourse Analysis and Theme Development.") See: A.A. Abdullayev, 2003). A scenario is a collection of low-level concepts related to time and cause-and-effect, describing the ordering and arrangement of stereotyped events in time.

Unlike the theory of artificial intelligence, the concept of "frame" is used in linguistics, not the concept of "scenario." G. Fillmore gave a comprehensive description of the theory of frames, comparing the semantics of understanding with the semantics of truth.

The structure of knowledge itself, called frames, schemes, scenarios, plans, etc., means a package-collection of information.

This collection of information is in memory or is created when necessary from components already existing in our memory. This collection of information transforms standard situations into an appropriate form for cognitive thinking.

These structures play a decisive role in the functioning of natural language. Through them, the coherence of texts is determined both at the micro and macro levels, and the necessary conclusion is reached; the ways of their activation are clarified (for example, some features of the assignment of certainty—uncertainty in languages with articles). Finally, they determine the importance of the context, which allows predicting future events on the basis of structurally similar past events.

The best example of structures intended for the transfer of pragmatic knowledge is considered to be "strategies." The book "Strategies for Understanding Related Texts," written by the famous Dutch linguist T. van Dijk together with B. Kinch, provides an excellent analysis of this issue. The authors, paying special attention to the dynamic aspect of understanding related texts, write that the process of understanding has a strategic nature. The strategies used in understanding texts are often not programmed in advance; they remain outside the conscious control of language speakers. They are also dependent on rapidly changing cognitive structures (knowledge, plans, instructions, and goals). The action of strategies is hypothetical and imaginative. With their help, the most probable structures, as well as the perceived significance of the given information, are quickly revealed. Additionally, strategies are characterised by their ability to operate at multiple levels simultaneously, utilise incomplete information, and integrate them with both inductive and deductive analysis tools.

The authors note that some of the strategies have linguistic features. These include strategies that relate to the surface structure of texts during the semantic analysis of texts. Others mainly belong to cognitive strategies. Knowledge about objective existence, situational, and other cognitive information plays a decisive role in their action.

Here it would be appropriate to note another point of view, which is the exact opposite of the teaching. Its supporters believe that knowledge does not play a fundamental role in solving the problems of language analysis. If the analysis process is carried out by specific individuals, then, according to these linguists, those features that are not subject to stereotypes and conceptual modelling are of decisive importance. Here, the purposefulness, emergence, and satisfaction of worldviews, implicit (hidden) evidence, emotional states, and needs are understood.

In general, the problems of organising knowledge and the means of its transmission are very closely interconnected within the broader framework of the study of natural language. If the methods of presenting knowledge have been regularly developed in works devoted to the problems of artificial intelligence over the past two decades, the issues of organising information have been in the spotlight only in recent years.

In the 80s of the last century, several constructive ideas were formed dedicated to the study of the conceptual organisation of knowledge. These include the assumptions put forward by R. Schenk and his supporters about the integral nature of language analysis. In their opinion, the transmission of linguistic information is a single, holistic process and occurs in parallel at all levels of the language—syntactic, semantic, and pragmatic. The semantic interpretation is not necessarily required after syntactic analysis. It can be started quickly, based on already known information about the syntactic structure, and during syntactic analysis, both semantic and pragmatic information can be used.

The results of the analysis obtained at any of the language levels are useful for all other levels. There are two possible forms of interlevel relations. In the first case, the interaction is organised hierarchically. In the first case, unmixed levels interact with each other through intermediate levels. In the second case, "cross-communication" occurs between the levels. In this case, each level can be directly interconnected with all other levels (see A.A. Abdullayev, 1998).

The ideas about the integral analysis of language are based on the broader idea of a single level of knowledge transfer. This idea is based on the ability of language, sensory, and motor information to be combined.

We would be wrong to say that concrete speech acts use all speaker and listener knowledge and ideas. Therefore, it is necessary to develop a conceptual tool that would be sufficient for the interpretation of texts with the majority of factors available. In this regard, concepts such as "focus" and "relevance" are often mentioned in the linguistic literature. (Especially in the works of D. Sperber and D. Wilson, U. Lenart).

M. Minsky, speaking of conceptual problems of knowledge, proposes to apply a system of "cognitive sensors." This system prohibits certain types of speech behaviour.

The famous linguist J. Lakoff's research covers broader problems in this area. In modern times, a more promising direction—the "semantic method," which is consonant with the problems of knowledge representation and organization—has become widespread. The provision of knowledge about the dynamic scope is given here not in the form of a set of rules but in the form of a procedure. Such research is considered more appropriate for the creation of expert systems. Here, as F. Johnson-Laird demonstrated, the means of organising knowledge in a procedural form also differ.

The cognitive approach to language is a dynamically developing trend, the results of which are quickly updated. Successful findings obtained during the study of language will undoubtedly be of enormous importance in the theory and practice of computing systems, machine translation, and search and information systems. However, it should not be forgotten that the study of the cognitive aspects of language will not only contribute to the effective solution of applied tasks but also deepen our understanding of the mysterious mechanisms of language communication. And we are constantly thinking about problems that have been bothering us for centuries. How can we understand each other better? How accurately and completely does language express our feelings and thoughts? As it seems, we are still very far from a complete solution to this or similar problems.

There is a strange proverb: He who knows a lot suffers a lot! Why should he who knows a lot suffer a lot? The writer Anar skilfully explained this in his work "The Pain of Understanding," which tells about the life of Jalil Mammadguluzadeh. Mirza Jalil, who served his people for many years with his pen, bright ideas, and beautiful artistic and publicistic works, suffered from unbearable misfortunes! This was experienced at that time, during the Soviet period. Now, from time to time, the "pain of incomprehension" occurs, bringing nervousness and anger to people. What is this disease?!

Why don't we understand? Are we not understood, or don't we want to understand? Do they not want to understand? When will these reasons decrease?

Q.Q. In the epigraph of his novel "Living to Tell," Marquez expresses the idea that, in fact, life is not just how one lives but also how one remembers it, as well as the ability to tell it to others. Loneliness, loneliness, and emigration arise from this in all times, in all countries. The main problem of the world is the migration of thoughts, and the leading countries look attractive in this sense and intelligently embrace it.

REFERENCES

Abdullayev A.A. "Discourse Analysis and Theme Development". Department of Linguistics, Berlin Technical University, 2003

Abdullayev A.A. Text, Meaning, and Understanding: A Communicative-Cognitive Approach, Alpha Print Inc. Minneapolis, MN, USA, 1998

Bartlett F. Remembering: A Study in Experimental and Social Psychology (Cambridge University Press, Cambridge, 1932

Dijk, van T. A., & Kintsch, W. (1983). Strategies of Discourse Comprehension. New York: Academic Press.

Fauconnier G., Turner M. The way we think: Conceptual Blending and the Mind's Hidden Complexities. N. Y., 2002.

Johnson-Laird F. PN. Casual Conflicts Produce Domino Effects. Quarterly Journal of Experimental Psychology 2022

Kubryakova E. C. Language and knowledge. On the way to obtaining knowledge about language: parts of speech from a cognitive point of view. The role of language in understanding the world. M., 2004.

Lakoff G., Johnson M. Metaphors by which we live; Per. with English; under the editorship и с предисл. A. N. Baranova. M., 2004.

Marvin L. Minsky, A framework for representing knowledge, 1974/6/1,6089, Publisher: Massachusetts Institute of Technology AI Laboratory

Intellectuals - they do not belong to mass production // "Reytinq" newspaper, October 2, 1999 (interviewed by: Sevinc Telmangizi).