COGNITIVE ASPECTS OF TRANSLATION
Lyan Veronika Vyacheslavovna
Kazakh Ablai Khan University of International Relations and World Languages,
Muratbayev st., 200, Almaty, 050022, Kazakhstan

Abstract
At the present stage of Translation Studies development there are many different approaches to translation, one of them that is acquiring translation researchers and scholars’ special interest is the cognitive aspects to understanding the nature of translation as a process and a product. This can be seen from a number of research articles devoted to the discussion of cognitive aspects of translation all over the world. The present paper attempts to critically review existing cognitive approaches and trends to translation proposed by American, European and Russian translatologists. Based on the method of literature review analysis of more than 20 research articles and several books it reveals the commonalities and differences in how Western and Russian researchers study the issue. Among the similarities that were found out by the author are the role of cognition emphasized in both western (American and European) and Russian research works. The unclear usage of the term “cognitive” in the western cognitive translation studies might be considered as one of the differences. A likely explanation for these similarities and differences is that there is a certain gap between the West and Russia in understanding the essence of translation itself. Therefore, the conclusion might be made that a further deep and detailed research on how to apply the cognitive aspects in translation studies needs to be undertaken.

Keywords: cognition, cognitive aspects, cognitive linguistics, translation, translation process

1. INTRODUCTION
Nowadays the attention of many linguists and translation scholars is focused on the study of cognition which is defined by the Oxford dictionary as "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses". In a general understanding cognition encompasses such mental processes as knowledge, attention, memory and judgement, evaluation and reasoning, problem-solving and decision making, comprehension and production of language. However, in the light of cognitive linguistics and cognitive studies the emphasis is being placed primarily on the processes of meaning generation and meaning interpretation. Therefore, the aim of the present article is to review the cognitive approaches in translation studies by analysing the Western and Russian research articles devoted to the issue. The article is found to be interesting and relevant as it contributes to the doctoral thesis research by identifying the research trajectories in the given field. Moreover, being a new trend within the framework of the anthropocentric paradigm, the cognitive aspects of translation are not sufficiently developed and studied, and owing to this fact the problem becomes of an undoubted interest in modern post-linguistic translation studies. As far as American, European and Russian cognitive scientific approaches to translation are concerned, they try to understand and explain the workings of translators’ minds: How do translators and the other actors involved in translation create meaning in the situations and texts they handle? How do they arrive at their strategies and choices? How does their cultural and linguistic background influence their thinking and understanding? How do they develop translation competence? Furthermore, as the background research shows, there are the commonalities and differences in how the Western and Russian researchers study the following problem.
2. METHODS AND MATERIALS

2.1. Materials

In fact, more than 25 research works, including books, research articles and a monograph on different issues related to cognition and translation were scrutinized. We performed the analysis of research works authored by American, European and Russian scholars published over a twenty-year period between 1978 and 2017. The materials were taken from various scientific periodicals and collections published available online and some open access scientific journals online.

2.2. The used research method

Due to the theoretical nature of the article the method of literature review and descriptive method were used to conduct the following study and achieve effective results. The rational for its usage might be explained by its purpose, which is a survey of important articles, books and other sources pertaining to our research topic. Conducting the method of literature review helped to analyze and contextualize through summary and comparison of prior research studies related to the revelation of cognitive approaches in translation field. Moreover, the application of this method has contributed to the revelation of an interdisciplinary interaction of cognitive science and translation as there are many disciplines that had a strong influence on their intermutual development. For instance, linguistics, psychology, psycholinguistics, cognitive linguistics, lingua-cultural studies, neuroscience, sociology and some other exerted greater influence on the growth of cognitive translatology as a separate field of science. To consider research on the cognitive aspects of translation the term “cognitive translatology” is taken from Munoz Martin (2010).

3. TRANSLATION AS A COGNITIVE ACTIVITY

At the heart of cognitive translatology is the interpretation of the translation process as a kind of cognitive activity of a translator or interpreter, involving the interaction of the cognitive and linguistic structures that a translator performs in the broadest context of his psychological and semiological characterology. From the very beginning, a translator is assigned the role of a text-interpreter, the one who decodes and encodes the meaning of a source text, taking into consideration its cultural and social context, rather than being a non-verbal transcoder.

It should be mentioned that both Western and Russian scholars emphasize the necessity of understanding cognition because it is a prerequisite for explaining many of the practical tasks relevant in translation, since these tasks are based on thinking, learning, and understanding. All the authors underline that apart from being an act of communication and a textual operation, translation/interpreting is also the result of the cognitive processing carried out by translators/interpreters.

The concept of cognition includes a wide range of mental activities such as knowledge, consciousness, reasoning, thinking, presentation, creativity, development of plans and strategies, reflection, symbolization, logical inference, problem solving, visualization, classification, correlation, fantasy and dreams, and it is determined by such processes as the organization of motility, perception, mental images, memory, recognition and attention. That is why cognition plays a primary role in the translation process because, based on cognitive activity, the translator is able to adequately and equivalently render a source text into target one, preserving both the semantic component of the text, as well as its communicative and pragmatic function by saving its national coloring.

Therefore, one has to take into consideration the mental processes involved in the course of a translation task as well as the capacities translators/interpreters are required to possess in order to do it adequately (translation competence). Besides, as the contents of the investigated articles have shown, the authors (O’Brien 2015, Alves, Pagano & Silva, 2010, Fesenko, 2001) highlight the observable and non-observable processes in translation, the former being referred to a translation as a product as well as the latter being referred to translation as an act.

The second thing that all cognitive scientific approaches have in common: they do not restrict their description to intelligent behavior like learning, problem solving, and translation. Their main goal is to
explain the development and workings of the mental processes that make complex cognitive behavior like translation possible (Halverson, 2010, Thagard, 2005, Minchenckov, 2007, Zlobin, 2012). This is why (and how) cognitive approaches differ from other - e.g., linguistic or psychological - approaches to translation: they refer to and expand existing cognitive scientific models of the mind to describe the processes which might serve to explain the behavior and choices of translators. For instance, such foreign researchers as Danica Seleskovitch and Marianne Lederer identify three interrelated phases of the translation/interpreting process, namely (1) understanding, (2) deverbalization and (3) re-expression [8]. As for Kiraly he considers translation both as a social (external) and a cognitive (internal) activity. He presents two models of the translation process: a social model and a cognitive model which draws on psycholinguistics [9]. Concerning Russian translation scholar Dem’yankov V.Z. “in the process of translation a translator acts as a cognizer, who interprets the information relying on his own cognition [10]. Thereby, the role of cognition which takes place in the translation process, as well as the interpretation and representation of the information are the are indicators of the cognitive process of translation.

A broad sweep of the published research on cognitive trends in translation rapidly reveals another commonality which lies in the topic of interconnection between the two main concepts - intercultural communication and translation. As Komissarov stated, translation is a complicated many-sided human activity, which means not only the process of transmitting the information from one language to another, but also rendering the cultural aspects of the source language text, because culture is an aggregate of material and spiritual achievements of the society, including all the varied historical, social and psychological features of the ethnos, its traditions, views, values, institutions, behavior, living conditions [11]. In short, culture includes all the sides of life and consciousness, including language. Therefore, many factors are crucial to the process of translating and to better explain the process of translation it is necessary to systematically consider them and explain them. The articles devoted to the discussion of cognitive aspects of translating different texts by various authors (Schaffner, 2004, Stienstra, 1993, Danks, 1997, Demyankov, 1994), such as literary, political, media and other types of texts stress the role of culture and the translator’s personality in the process of translation.

In addition, scientists note the importance of genre content of the text, its type, because the tools of cognition allow a translator not only to determine the genre of the source text, but also identify the ways of preserving all the features of a particular genre of a text. Undoubtedly, the main guarantee of a successful translation of a text or a discourse is the knowledge of the translator not only in the vocabulary of a particular subject area in both languages, but also to have genre competence, i.e., to know the features of the speech genre in native and foreign languages and be able to take them into account when translating.

4. APPROACHES TO COGNITIVE TRANSLATION STUDIES IN THE WEST

The studies that have been analysed could be uniformly referred to as “cognitive”. But whereas such an identification is fairly safe, it might not provide a satisfactory and informative answer to the question of what exactly “cognitive” is taken to mean, even if we narrow it down to translation inquiry. For instance, in an article published in 2002 Kubinski talks about a “cognitive theory of translation” [15]. Hejwowski (2002) describes his theory of translation as “cognitive communicative” while Harlversen (2010) refers to “cognitive translation studies” and Munoz Martin (2010) outlines what he calls “cognitive translatology”. The paper written by O’Brien (2011) is titled “The Borrowers: Researching the Cognitive Aspects of Translation” and the author refers to “Cognitive aspects of translation” in the title of one of her papers (O’Brien 2015), where she discovers a small impact of cognitive translatology on the above-mentioned disciplines and suggests that future developments are to be made, including ways how cognitive translatology might exert greater influence on other related disciplines. In turn Rojo and Ibarretxe-Antuano (2013) discuss “Cognitive Translation Theory” a fairly recent book centered on translation and interpreting co-edited by Schweiter and Ferreira (2015) brings up in the title “psycholinguistic and cognitive inquiries”. A question to be raised is about the degree to which what is meant by “cognitive” across the many uses and authors does in fact overlap. In an attempt to answer the
question, we could use Riscku’s (2012) observation that the objective of “cognitive scientific approaches to translation” is to “understand and explain the workings of translator’s minds” [19]. This sort of a broad formulation could serve as a common denominator of all the types of research that we could accommodate in the category of “cognitive translation research”. The method of literature review again helped to reveal the two major ways of understanding “cognitive” in the context of translation investigations.

First, one common use of the term “cognitive” in the setting of European and American Translation Studies, is to refer to the interest in translator’s cognitive function as manifested in process research (Kiraly, 1995; Hansen, 1999; O’Brien, 2015 Whyatt, 2016). Process-oriented studies use a range of tools to produce accounts of the translator’s cognitive operations based on data coming from think-aloud protocols, screencasting, key-logging, eye-tracking, galvanic skin response analysis, heart rate monitoring. Likewise, non-linguistic, but rather cognitive psychological approach to translation was earlier undertaken by Wilss (1996) who considers translation as a decision making type of behavior. According to Wilss, translation is a knowledge-based activity and, as with all kinds of knowledge, it requires the acquisition of organized knowledge. In order to explain the organization of this type of knowledge, Wilss draws on schema theory (Bartlett 1932; Neisser 1967; Tannen 1979 etc.). Schemas are cognitive units, hierarchically structured, which support the acquisition of knowledge. As such, the central task of cognitive approaches to translation is to investigate the way schemas operate and the type of interaction observed in knowledge-related schemas [21]. Decision-making processes are closely related to problem-solving activities (a more complex and far-reaching concept). In order to solve problems, an individual builds on both declarative and procedural knowledge. In the case of translation, this issue is much more complicated since it is a derived activity (i.e. the transformation of a text into another text). In accordance with this traditional model, translators work like code-switchers: they replace the elements and rules in one coding system with the elements and rules of another. Having learnt a language system and corresponding elements and rules in the target language system, a translator can rely on his own language proficiency and agility and translate a bit like a machine. Building on Corbin (1980), Wilss recognizes six phases in the decision-making process: identification of problems; clarification (description) of problems; search and retrieval of relevant information; problem-solving strategies; choice of solution; and evaluation of solution [25].

Second, a compatible if narrower sense in which translation research can be conceived of as “cognitive” would be when it draws on Cognitive Linguistics (CL) which might be defined as “a modern school of linguistic thought and practice, investigating the relationship between human language, the mind and socio-physical experience” (Evans, Zinken & Bergen, 2007). It is important to keep in mind the premise of Cognitive Linguistics that language is all about meaning, which needs to be a commitment held by “cognitive linguistic”, i.e. approaches that generally see language as a mental phenomenon.

In “More than a Way with Words,” Ricardo Munoz Martin explores “The Interface between Cognitive Linguistics and Cognitive Translatology”. “Translatology” is the technical term denoting the theory and practice of translation and interpretation, sometimes more informally referred to as “translation studies”. In the first part of his essay Martin surveys few of the major “contributions of cognitive linguistics to cognitive translatology”, including helpful discussions of conceptual metaphor theory and frame semantics. In part two of his study Martin suggests “what cognitive translatology may do for cognitive linguistics”, for example, with respects to “translation universals” and the nature of “interference”. He concludes by stating that there is the ultimate hope that Cognitive Linguistics will provide the necessary “cognitive scaffolding to develop (deeper, thicker, more well-defined) descriptions and explanations of the cognitive aspects of translation and interpreting processes” [17].

As far as Deckert’s editorial is considered, it outlines the theoretical and practical underpinnings of translation and cognition, where he discusses some cases of asymmetry, related to the linguistic and cross-linguistic asymmetry. He states that linguistic asymmetry lies in the fact that two different languages have diverse cognitive linguistic structures in terms of lexis, syntax, grammar, semantics and phonetics, while socio-cultural stereotypes, differences in how non-verbal communication, including motion, emotions, temporality, is realized refer to cross-linguistic cases of asymmetry. The author points out to the need to study cases of both linguistic and cultural asymmetries from the perspectives of
cognitive science, when a translator switches from one cultural code to another basing on his mental processes, background knowledge and a good knowledge of the features of the linguistic picture of the world of two different cultures [27]. Asymmetry is a negative phenomenon, causing anxiety and fraught with serious consequences for the course of intercultural communication. In the process of translation, an interpreter must neutralize the lingua-ethnic barrier and prevent the distortion of the semantic perception, not allowing the national-cultural assimilation of the translation, so that the source text does not lose its national and cultural coloring in the process of communication.” For its successful performance, a translator must possess the knowledge of a certain set of translation modifications and transformations, including the additional explanatory information to the text of the translation or comments. The analysis of a number of source and target texts makes it possible to make sure that the translators, who perceive the phenomena of a different culture through the prism of their own, quite often represent the phenomena of alien culture through the eyes of a target culture. Distortions of information occur most often because there is a discrepancy in the reflection of the picture of the world in different languages and in different cultural and historical contexts.

5. RUSSIAN RESEARCHES ON COGNITIVE ASPECTS OF TRANSLATION

Starting from 1970s till now Russian translation theory has been undergoing the shift from purely linguistic to multidisciplinary approach, which includes the development of functional communicative approach, linguacultural analysis and cognitive trends in translation. Gradually the attention of contemporary Russian translatologists is being paid to the personality of a translator, the impact that human personality has on translating, rather than the language system and its components, structures. It should be noted that the following basic concepts as adequacy, equivalence and other traditional for the conceptual apparatus of the linguistic theory of translation, have been replaced by such concepts as cognition, heuristics, concept, frame, related theory of translation within cognitive science. Perception of translation as a pure technical process became outdated, and teaching the translation according to the traditional methods, without reliance on cognitive processes during the reproduction of a text in another language and cultural context text often causes misunderstanding among future specialists in the field of translation and, as consequence, inadequate translation product. It is these factors that testify that the link between language and thought, the interconnection of cognition and translation go beyond pure linguistic solutions.

In her paper “On the cognitive mechanisms of translation” Kushnina (2015) interprets cognition as a universal multifunctional mental structure that facilitates the information extraction and processing, understanding and interpretation of heterogeneous meanings transposed by a translator from one language and culture into another language and culture. Kushnina proposed to introduce the term harmonization when translating text from one language to another. The research of cognitive mechanisms is based on the analysis of translation intellectual activity. The author’s theory of harmonization of translation space is used as a methodological base of the present article. This theory describes translation as a synergetic system of sense transmission from one language or culture into another. Harmony is a category for assessing the quality of translation, suggesting that the meanings of the texts of the original and the translation are not identical, but are proportionate, consistent with each other. Kushnina considers a text of translation to be harmonious when it is naturally perceived by target audience [28].

The similar method of thinking-aloud became the basis for elaborating the cognitive – heuristic model of translation which can be described as a complex mental process including the perception and understanding of the source text and the transformation of the concepts formed by this text in the translator's mind into a new text in another language. Minchenkov (2008) specifies the heuristic nature of the whole process, which involves exploring possibilities and forming hypotheses on the basis of the interaction in the translator's mind between the different kinds of knowledge and the information received from the source text. In his model a concept is considered to be the unit of translation as long as he highlights that “concept is the intention that a translator tries to objectify by linguistic means of a target language [6]. Hence, in the translation process there are two obligatory stages, the first is
conceptual structure formation and representation of it by means of target language and the second is cognitive search and self-correction.

Furthermore, here, translation is described as a cognitive activity in the frameworks of cognitive linguistics. For instance, Fesenko mentioned that in the cognitive translatology there is a tendency that we should not translate words or sentences in other words translation is not done on verbal level, but on the level of a concept which is the main object of cognitive linguistics [3]. Therefore, the concept here is the information about what an individual knows, suggests, thinks, imagines about the objects of our world. And this becomes clearly understandable, because the mentality of any linguacultural community is conditioned by its conceptosphere. Thus, the system of images, standards and stereotypes typical for a given society are represented in the worldview and the linguistic picture of its members in view of their social and ethno-cultural traditions.

According to V. Ben’yamin (2002), no translation would be possible if in its essence it did not strive for the likeness of the original text, and the ultimate purpose of translation is to reveal a deep, not superficial relationship between languages. The thought expressed in the language is always dependent, as it is attached to words and phrases. Languages differ from each other in ways of existence of words, which are called modes. For example, the French word “mort”, German “tod” and English “death” mean the same, but they have different modi of meaning. Translation, in turn, allows to release the “pure meaning” from the linguistic forms of the original language, turn the signifier into a designated and again find a pure language that does not mean anything and does not express, it simply is “[29].

The notion of “concept” corresponds to those senses, which a man operates in the process of thinking and the senses which reflect the content of experience and knowledge, the content of results of all human activities and the learning processes of the world in the form of some “quanta” of knowledge. A concept is a kind of algebraic expression of meaning, which a man operates in his written speech (Likhachev, 1997). V. Nezorniak states that the “concept is a remarkable image abstracted in a word and reflecting a fragment of the national picture of the world (Nerozniak, 1997) [31]. According to the linguistic-cognitive understanding the relation of the concept is related with verbal means of expression. Language does not form concepts, but serves as a means of the exchange of them and for the discussion in the process of communication. Concepts exist in the real mentality of an individual, thus, to communicate they have to be verbalized, that is, to be expressed by language means. In the language the concept can be verbalized both by individual words and phrases and by sentences and the entire texts, which determines the concept itself. The choice of the verbal form depends on the personal meaning, mental representation and the internal lexicon of the speaker, which are interconnected. As Kazakova (2006) suggests the process of translation is understood as the lingual representation of concepts in the target language [32]. Thus the translation semiosis (a process that involves signs, including the production of meaning) is seen as the understanding and interpreting information (concepts) taking into consideration the different world pictures and various ways of rendering them.

When the concepts are actualized, however, a translator does not only perceive the information coming from the source text, but also the information that comes through the other interfaces. First, the translator uses his background knowledge, including general knowledge of the world. Secondly, knowledge arising from interpreter's perception of the general context of speech interaction is used (Dem’jan’kov, Kurbjakova, 1997). The text created in the translation process, in turn, is not a copy of the source text, because it is not born by transforming the source text, but by replacing the concept of the source text with a new semantic concept. Depending on the background knowledge of the translator, as well as various external factors, the translation of the same text from different authors turns out to be different.

6. CONCLUSION

After describing and analysing the ways of studying cognitive issues in translation field applied by the western and Russian translation researchers and scholars, it is necessary to state that a) the major similarity of the western (American and European) and Russian research works devoted to the issue lies in the fact that in all the papers the significance of cognition is stated; b) there are some substantial
differences in how the cognitive aspects of translation are understood and worked out by the western and Russian researches, c) whereas European and American scientists develop mainly cognitive translation models taking into consideration mental and psycholinguistic operations and even undertake biological and neurolinguistic analysis of the translation process, the trend in Russia is that cognitive aspects of translation are developed within the framework of cognitive linguistics, d) more new terms and new concepts are introduced, related to cognitive analysis of translation in Russian and Western scientific works. In particular, the usage of the term “cognitive” in western translation theory is not yet clear. While scholars in the West refer it to a translator’s cognitive function and cognitive operations within the scope of cognitive psychology, some of them consider that it is resulted from Cognitive Linguistics. As for the analysis of the articles authored in Russia, it has been identified that their studies of cognitive aspects of translation are mainly rooted from Cognitive linguistics. The rational for such similarities and differences might be provided by the facts that there is a certain gap between the West and Russia in understanding the nature of translation itself. Given the limited scope of the article, a further deep and detailed research on how to apply the cognitive aspects in translation studies needs to be done.

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REFERENCES

7. Zlobin, AN 2012 “Perevod v kognitivnom formate znaniya”, monografiya


33. Kubryakova i dr 1988, Kratkiy slovar' kognitivnych terminov.-Moskva