



TRANSLATION AS A COGNITIVE-LINGUISTIC ACTIVITY

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Abstract. The cognitive aspects of translation are covered in this small scientific study. Nowadays, scientists are interested in the conditions of the translation process in the brain. According to the researchers, the translation process includes linguistic perception and translation into language and code-switching. This situation occurs in activating non-linguistic knowledge from the human mind and the linguistic database organized in the mental lexicon.

Keywords: translation process, lexical access, mental lexicon, cognitive processes.

Аннотация. Когнитивные аспекты перевода рассматриваются в этом небольшом научном исследовании. Сегодня учёных интересуют условия процесса трансляции в мозге. По мнению исследователей, процесс перевода включает лингвистическое восприятие и перевод на язык и переключение кода. Такая ситуация возникает при активации неязыковых знаний из человеческого разума и лингвистической базы данных, организованной в ментальном лексиконе.

Ключевые слова: процесс перевода, лексический доступ, ментальный лексикон, когнитивные процессы.

Annotatsiya. Ushbu kichik ilmiy tadqiqotda tarjimaning kognitiv jihatlari yoritilgan. Hozirgi kunda olimlarni miyadagi tarjima jarayonining sharoitlari qiziqitirmoqda. Tadqiqotchilarning fikriga ko'ra, tarjima jarayoni lingvistik idrok etish va tilga tarjima qilish va kodlarni almashtirishni o'z ichiga oladi. Bu holat inson ongidan nolingvistik bilimlarni va aqliy leksikonda tashkil etilgan lingvistik ma'lumotlar bazasini faollashtirishda yuzaga keladi.

Kalit so'zlar: tarjima jarayoni, leksik kirish, aqliy leksika, kognitiv jarayonlar.

Introduction

There are many types of complex functions in linguistics, one of which is the translation process. Scientists say that this refers to the type of cognitive linguistic activity. It is a translation of a finished text or a linguistic activity considered to belong to people. One of the complexities

of the process required of translators is to preserve the uniqueness of all languages without compromising their nationalities.

At the cognitive level, translation requires a deep understanding of both languages, including grammar, syntax, semantics, and pragmatics. Translators must correctly decode the meaning of the source text and then encode it into the target language, while ensuring that the intended message is effectively conveyed. Moreover, translation is not a simple process; languages are not always directly equivalent, and words or phrases do not always have exact equivalents in another language. The first thing that is required from the representatives of this field is that they must have the ability to preserve the cultural identity of both languages and to convey the original content and form of the text to the reader without changing it.

Translation involves a high level of cognitive flexibility and problem-solving skills. Translators must be able to adapt to different writing styles, tones and registers and adjust their translation choices accordingly. They must also be able to resolve ambiguities, solve linguistic problems, and find creative solutions to language and cultural barriers. It is not correct to look at the translation process as a mechanical movement, because the translation is a creative process that means the ability to convey the original essence of the text to the reader while skillfully preserving the content in the second language. A particular requirement of translators is to understand the nuances, tone, and style of the given text and pay special attention to ensuring that the translation is accurate, correct, and culturally appropriate.

Literature analysis and methodology

As we mentioned above, the translator needs a high scientific knowledge, and a set of creative, strategic, and knowledge-based actions in different situations and contexts when translating texts. At this point, the translator must use the existing knowledge wisely, use cognitive resources, and take into account the sequence of mental processes in the act of translating a text from one language to another. The translation process is defined by scientists as follows: “It is a complex process that combines linguistic knowledge of two languages and language-independent conceptual knowledge based on individual and cultural experience.”²⁷¹ Having communicative linguistic and communicative knowledge in several languages, and understanding the sequence of translation are particular qualities of a translator. They should pay attention to referential continuity that helps harmony, observe cultural conventions, and know the typological variants of the text. An interpreter allows the recipient's world knowledge to interact with context-specific text information, thereby recognizing the meaning and action goals of the text. Of course, the content of the text to be translated also requires the necessary experience. The translation process is manifested as a reaction to characteristics, demands, and structural constraints, such as the development of cognitive and metacognitive strategies and problem solving. The quality of the cognitive aspects of the translation process can justified in

²⁷¹ Н. К. Гарбовский Теория перевода : учебник для студентов высших учебных заведений, обучающихся по специальности "Лингвистика и межкультурная коммуникация" Москва 2007
<http://dlib.rsl.ru/rsl01003000000/rsl01003113000/rsl01003113827/rsl01003113827.pdf>

the design and writing of the target text, the important aspect of this situation is not justified in the analysis of linguistic structural relations between the target text. Acquiring translation skills requires linguistic and communicative skills to translate a text accurately. It means that the translator must have the ability to speak both languages fluently, a process that also affects the translation skills. The quality of the cognitive aspects of the translation process can exist based on the design and writing of the target text, essential field of this situation is not justified in the analysis of linguistic structural relations between the target text. Acquiring translation skills requires linguistic and communicative skills to translate a text accurately. It means that the translator must have the ability to speak both languages fluently, method also affects the translation skills. Both the development of translation skills and the process itself can be explained from cognitive bases. We assume that having acquired the second language after acquiring the first language and having learned it in its context, but having mastered it to such an extent, they have developed two separate mental lexicons, capable of linguistic action in any situation, as well as having excellent metalinguistic knowledge.²⁷² This applies, for example, to graduates of a foreign language whose second language has become a means of communication and learning during their studies, that is, it has acquired the function and thus the status of a first language. Linguistic, i.e. subject-related, knowledge of the language is acquired only through a foreign language. During the translation process, graduates of the foreign language faculty work as language mediators who write, process and translate texts in the source language into the target language. They are easy to translate even “untranslatable” units, for example, idiomatic expressions, proverbs, words that have no equivalent in another language (zero equivalent), words whose meaning is only partially matched (partial equivalence). they try to find their way. It requires a skill that needs to be learned and practiced. The quality of the cognitive aspects of the translation process can justified in the design and writing of the target text, the important aspect of this situation is not justified in the analysis of linguistic structural relations between the target text. Acquiring translation skills requires linguistic and communicative skills to translate a text accurately. It means that the translator must have the ability to speak both languages fluently, a process that also affects the translation skills. The quality of the cognitive aspects of the translation process can exist based on the design and writing of the target text, essential field of this situation is not justified in the analysis of linguistic structural relations between the target text. Acquiring translation skills requires linguistic and communicative skills to translate a text accurately. It means that the translator must have the ability to speak both languages fluently, method also affects the translation skills. Controlled, consciously used information processing is slow and sequential.²⁷³ Conscious processes are the basis for language

²⁷² Legutko-Marszałek, I., 2006. Zum Status eines mentalen Lexikons bei einem bilingualen Sprecher. In: Glottodidactica XXXII. An International Journal of Applied Linguistics, 59-71.

²⁷³ Gadenne, V., 1996. Bewusstsein, Kognition und Gehirn. Einführung in die Psychologie des Bewusstseins. Bern: Verlag Hans Huber.

production processes (control of memory and declarative knowledge, ability to self-correct, etc.). They are subject to metacognitive regulatory control, that is, management of knowledge about their cognitive abilities and shortcomings. This allows the purposeful use of strategies that control cognitive behavior in a given situation.²⁷⁴

Discussion/Recommendation

All cognitive information processing processes, including linguistic processing such as reception and comprehension, translation and production, typically require the activation and interaction of many different memory components. In translation, we deal with dynamic processes based on basic activities based on linguistic, conceptual and procedural knowledge stored in the brain. The central function here is performed by the mental lexicon, which stores all lexical units, including linguistic information. Translators deal with at least two separate lexicons in the process of translating texts, and in this direction, a linguistic skill should be able to speak at least two languages fluently. During translation from one language to another, in addition to the linguistic information stored in the mental lexicon, non-linguistic conceptual and procedural knowledge is also required. In the process of language acquisition, a sequence of linguistic units in a language is divided, evaluated, and determined to produce the intended content. Conceptual analysis requires the activation of knowledge representations in semantic memory. On the other hand, the intention acquired during language production is first transformed into the linguistic structures of another language and then expressed, in which procedural memory must also be activated. Both language acquisition and language production require access to linguistic information stored in the mental lexicon of the languages in question. In the process of language acquisition, sensory access and in the process of language formation, when entries corresponding to conceptual intention, i.e., access to all information related to language, are activated in the mental lexicon, we are engaged in lexical access. Thus, the following language-related information is also activated in the processes of language processing with lexical writing:²⁷⁵

a) phonetic-phonological and grammatical information (number of sounds and syllables, phoneme and accent structure²⁷⁶, sequence of letters according to spelling rules);

b) morphological data (knowledge corresponding to the relationship, conjugation and comparative inflection pattern, derivative and composite word formation schemes, knowledge of gender, tense, case, number and person and parts);

²⁷⁴ Kupsch-Losereit, S., 1997. Übersetzen: ein integrativ-konstruktiver Verstehens- und Produktionsprozess. In: Drescher, H.W. (Hrsg.). Transfer. Übersetzen – Dolmetschen – Interkulturalität. Frankfurt: Peter Lang.

²⁷⁵ Legutko-Marszałek, I., 2010. Der Zugriff auf lexikalische Einheiten und die Aktivierung von sprachlichen Informationen im Prozess der Sprachrezeption und Sprachproduktion bei Bilingualen. In: Studia Niemcoznawcze XLV, 525-535.
<http://prh.hec.gov.pk/jspui/bitstream/123456789/1429/1/2086S.pdf>

²⁷⁶ [http://prh.hec.gov.pk/jspui/bitstream/123456789/1429/1/2086S .pdf](http://prh.hec.gov.pk/jspui/bitstream/123456789/1429/1/2086S.pdf)

c) syntactic information (word group, potential position of the sentence, type of sentence, combination restrictions: argument structure (valence), subject-predicate-object relationship depending on tense, gender, substance (reaction, compatibility));

d) semantic information (expression of conceptual knowledge (meaning), structure of semantic properties, argument-connection relations (thematic roles), associative relation to other meanings);

e) pragmatic information (reference to the context of the situation, schemes²⁷⁷, scripts, mental models).²⁷⁸

If we are working this process, depending on the direction of the processing process, it is possible to access a different mental lexicon. The mental lexicon, together with declarative and non-declarative knowledge, constitutes the memory components of long-term memory.²⁷⁹ As we mentioned above, the process of translation begins with receiving the language, or more precisely, understanding the text to be translated. Therefore, understanding appears to be a constructive, language, knowledge, and context-dependent process. Thus, language processing means not only the analysis of input information, but also the active construction of a mental representation that may include information that is not present in the input.²⁸⁰ Knowledge-based inferences are an integral part of language processing, linking text content with knowledge of linguistic acts, knowledge of interaction, as well as experience and world knowledge to derive a coherent meaning of a text.²⁸¹

Understanding is the result of cognitive processes consisting of mental thinking and problem-solving operations. The goal of translation is to transfer content from one language to another as reliably and intelligibly as possible. In order to correctly predict the translation, it is first necessary to distinguish the text to be translated and analyze the translation units, which are sentences, phrases or even words²⁸². System information is provided during reception, but it must be decoded correctly. This requires the activation of declarative memory, which includes grammatical knowledge about the linguistic system of the target language. In parallel with minimal latency syntactic processing, individual words are prelexically analyzed and

²⁷⁷ Судебная лингвистическая экспертиза: учебник (Галяшина Е.И.). – "Проспект", 2021 г.
<http://ivo.garant.ru/#/document/77166679>

²⁷⁸ Legutko-Marszałek, I., 2010. Der Zugriff auf lexikalische Einheiten und die Aktivierung von sprachlichen Informationen im Prozess der Sprachrezeption und Sprachproduktion bei Bilingualen. In: *Studia Niemcoznawcze XLV*, 525-535.
https://new.tdpu.uz/uploadfiles/9000_1307_KONFERENSIYA.pdf

²⁷⁹ Squire, L., Raichle, M.F., Perrett D., Fukuda, J. (Hrsg.). *Brain mechanism of perception and memory: From neuron to behavior*. New York: McGraw-Hill.

²⁸⁰ Bransford, J.D., Barclay, J.R., Franks, J.J., 1972. Sentence memory: A constructive vs. interactive approach. In: *Cognitive Psychology* 3, 193-209.
<https://www.ablaikhan.kz/images/2324/%D0%A1%D0%A2%D0%A3%D0%94%D0%95%D0%9D%D0%A7%D0%95%D0%A1%D0%9A%D0%98%D0%99%20%D0%A1%D0%91%D0%9E%D0%A0%D0%9D%D0%98%D0%9A%2003.04,24.pdf>

²⁸¹ Rickheit, G., Strohner, H., 2003. Inferenzen. In: Rickheit, G., Herrmann Th., Deutsch, W., (Hrsg.) *Psycholinguistik. Ein internationales Handbuch*. Berlin – New York: Walter de Gruyter.

²⁸² https://new.tdpu.uz/uploadfiles/9000_1307_KONFERENSIYA.pdf

recognized by identifying the corresponding lexical entries in the mental lexicon of the source language. From the set of lexical items activated by lexical input, the word that best matches the input word is selected. After selecting the corresponding record, other related records will be deleted. Phonetic-phonological, morphological, semantic, syntactic and pragmatic information activated by lexical entries are combined with the general language structure. By activating the representations of conceptual knowledge corresponding to the lexical units, the meaning structure of the sentence is finally revealed. The context of the situation also affects the interpretation of linguistic translation units, changes the conceptual structure and separates the meanings. Relying on knowledge stored in long-term memory, the text receiver establishes relationships between entities and events mentioned in a sentence or text. This process requires the translator to have general, experiential, cultural or even subject-specific knowledge.

Once the conceptual framework is understood, translation into another language can begin. During language production, people usually first activate some of their language-independent conceptual knowledge to create a cognitive representation of the intended word content. Unlike the normal language production process, the translation process does not need to create a conceptual structure because it is already given in the source text. Consequently, lexical units corresponding to the expressions of conceptual knowledge are selected. Access to relevant lexical entries of the studied language can be done in two ways: through concepts or directly, that is, without reference to the concept.

At this point, we should emphasize the difference between linguistic meanings and non-linguistic concepts recommended by Legetko.²⁸³ According to him, terms should be independent of language and free from any language restrictions. However, they are determined when acquiring a language and are conditionally given a linguistic word form, that is, lexicalized. From this moment on, they are subject not only to knowledge, but also to communication and grammatical structure formation requirements.

Therefore, linguistic meanings should be accepted by society, clearly defined, relatively stable and objective, as well as enter into structural relations with other lexicalized terms. Meanings associated with individual language should be distinguished from pure concepts, and they are understood as operations consisting of searching for conceptual schemes corresponding to the corresponding word form, their activation and concretization according to the current linguistic and non-linguistic context.²⁸⁴

In the process of translation, identifying the lexical entry in the mental lexicon through the linguistic meaning also activates the expression of conceptual knowledge, which then needs

²⁸³ Friederici, A.D., Kotz, S.A., 2003. The brain basis of syntactic processes: functional imaging and lesion studies. In: *Neuroimage* 20, Suppl. 1, 8-17.

²⁸⁴ Scherfer, P., 1997. Überlegungen zu einer Theorie des Vokabellernens und -lehrens. In: Börner, W., Vogel, K. (Hrsg.). *Kognitive Linguistik und Fremdspracherwerb*. Tübingen: Gunter Narr Verlag. Squire, L., 1993. The organization of declarative and non-declarative memory. In: Ono T.,

to be expressed through the meaning in another language. However, it may happen that the relevant record can be found at the linguistic level, that is, without recourse to an extralinguistic concept.

Access to the lexical record includes information about not only phonetic-phonological forms, morphological structures, semantic images, and syntactic regularities that indicate the internal structure of the mental lexicon. Entries that are associatively linked to a lexical item, such as close meanings through relational networks, phonologically similar words, or acquired equivalents of a foreign language, are also activated. Usually, the entries in the mental lexicon of the language that correspond to the conceptual structure are selected and the rest are deleted. In the process of lexicalization, a syntactic structure is created that corresponds to the grammatical constraints of the language being translated, taking into account all the linguistic information automatically activated with lexical units. However, not only equivalents are selected in the mental lexicon of the studied language. The context of the situation, conceptual and grammatical structure, as well as conclusions have a great influence on the choice of language units. During language acquisition, potential equivalents in the target language are activated because the mental lexicon of both languages is networked.

Conclusion

In short, translation is a multifaceted cognitive-linguistic activity that requires a unique combination of language knowledge, cultural knowledge, cognitive ability, creativity, and critical thinking. Interpreters play a crucial role in overcoming language barriers, facilitating intercultural communication, and preserving the integrity and richness of different languages and cultures.

At the same time, in the process of translation, individual linguistic units are first identified and selected in the mental lexicon of the source language, in which linguistic meanings activate their conceptual knowledge forms, and thus the conceptual structure of the formed language is formed and a translation unit is created. One of the processes required separately is to select appropriate target equivalents for these terms in the mental lexicon of the language. During reception, associative links with source language units and target language equivalents are activated in advance and accepted if they do not violate the conceptual structure. If they do not match, they are revised and replaced with other lexical units that match the conceptual structure. Sometimes even the meaning of a sentence has to be completely changed in the source language and replaced by a completely different one in the mirror language, as in the case of idiomatic expressions, idioms, puns or proverbs. such as. Finally, the selected linguistic units are presented for translation. In the process of translation, the conceptual structure is taken from a sentence written in one language and repeated using other language tools. After that, the entire text is translated using the specified characters. Difficulties arise in correctly understanding and repeating the meaning and purpose of a text, and this can only happen when linguistic texts are properly understood, that is, when the conceptual structure is correctly revealed.

As we can see, the process of translation is one of the most complex processes of language processing, which combines not only language acquisition and language production, but also language transformation. Not only the mental lexicon, where the lexical units of both languages and all linguistic information are stored, but also other components of memory are activated, where the knowledge of the language system and the application of grammatical rules are stored. Of course, the whole process must also be monitored and controlled so that linguistic imbalances can be corrected immediately. We are not always aware of the complexity of these processes taking place in our brain,

because they are very fast and partly automated, such as the production and reception of language, or perfectly adapted to avoid major difficulties, such as the process of translation. Only when we face problems do we think about them. However, translation skills require not only learning and practicing the skill, but also a certain ability to maintain a balance between two language systems. As a proof of this - many unsuccessful translations can be cited.

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