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Mental Translation as a Cognitive Process in Communicative Language Teaching and Learning

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Abstract: In EFL learning and teaching processes, mental translation might play an essential role in the mind of the foreign language learner. Some scholarly papers investigate the types of processing in the language learners' mind such as language perception, language acquisition and dialogue production. Other studies, based on empirical psycholinguistic research about the process of mental translation, investigate mental translation strategies as well as the neuro-linguistic aspects of this process, including cognitive and brain imaging research. There is a consensus among researchers that using neurolinguistics knowledge, one can connect neurological processes in the language learners' brain with the foreign language learning. This paper tries to contribute to existing studies in this field and highlight the importance of neuro-linguistic research in connection to the biological capacity of the human memory to make connections between language systems in the process of communicative language learning.

Keywords: cognitive processing, cognitive science, communicative language teaching and learning, mental translation, translation process

1. Mental translation, a cognitive process

Mental translation has not been regarded as having a significant function in linguistic or literary studies research. Currently, the theoretical and methodological interests of process research have provided mental translation with an additional function in cognitive science. The concern for the cognitive features of mental translation has led researchers to turn to disciplines such as cognitive linguistics following creative ways and research means. As Kenesei (2013) posits,

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> "The recent cognitive turn in linguistics is closely related to research into the creative nature of language. Formal creativity, or in other words, the recursive nature of language (with respect to both words, i.e., the basic units, and sentences, i.e., the end products) is what determines further domains of creativity, viz., at the level of meanings and in the theory of mind, providing for their unlimited and variable nature." (Kenesei, I 2013)

This study reconsiders contemporary concerns and issues in mental translation studies, and other empirical research work that could have a contribution to enlarging our perception of mental translation. The objective is to demonstrate that the mingled attempts of curriculum from cognitive science may have an impact, not only on outlining the items that derive the mental translation process but also on defining and depicting the hidden effect that mental translation research reveals through communication and language processing. Nowadays, the acknowledgement of the function of cognitive processes and factors require cognitive scientific approaches to mental translation, language acquisition and the underlying processes used by mental translators. They refer to and expand existing cognitive scientific patterns of the mind to describe the behaviour and linguistic choices of language learners while learning a foreign language. Cognitive translation analysis relies on a number of methods to explore mental translation activities. Cognitive approaches to mental translation take into account a series of features such as the social background of learners, affective and emotional aspects, attention as an essential element of cognition, and their impact on mental translation performance is being increasingly explored. Other scholars (Gallese & Sinigaglia 2011) formulated the Embodied Simulation Hypothesis and claim that when language learners create messages in the process of language acquisition, mentally simulating actions and perceptions:

> "The discovery of mirror neurons, responding both to action execution and observation, suggested an embodied approach to mental simulation. Over the past few years this approach has been hotly debated and alternative accounts have been proposed. We discuss these accounts and argue that they fail to capture the uniqueness of embodied simulation. Embodied simulation theory provides a unitary account of basic social cognition, demonstrating that people reuse their own mental states or processes represented with a bodily format in functionally attributing them to others." (Gallese & Sinigaglia 2011)

Acknowledging that meaning mainly includes the stimulation of intuitive, perceptual and even of public as well as the emotional knowledge have important outcomes for communication in general. When learners cannot stimulate the same knowledge, communicative items emerge. While using mental translation, language learners are the essential cognizer controlling meaning constructions from mental simulation. They need to rebuild the meaning of the original communication activity and send it to others or to themselves in such a way – that is, choosing the correct linguistic labels – that helps them to recreate it by themselves. This procedure of mental

simulation is highly sophisticated, and language learners find all this knowledge develop into part of their mental background filtrated through their own abilities, such as their knowledge foundation, hypothetic choices, personal peculiarity and characteristics and personality traits.

Mental translation, both in communicative teaching and in language learning process (Toma, A. & D. Dejica. 2023), operates on words or sentences, in other words, it is an item of communication. The analysis of psycholinguistic approaches to mental translation relies on the elementary supposition that mental translation requires a bilingual mode of language interpreting, it attempts to enhance this attitude in mental translation and relate it to theoretical psycholinguistic interpretations and research. Mental translation can be complementary and supportive to psycholinguistic view of translation, if we take into account learning foreign languages.

3. The impact of mental translation on language learning comprehension

One of the prior questions for mental translation while learning a foreign language spins around the effect of translation on language comprehension and proficiency. It is estimated that the characteristics that differentiate mental translation from merely comprehensive communication may be used to characterise mental translation processes. Most psycholinguistic research have regarded the cognitive process that determines foreign language clarification while using mental translation concentrating predominantly on the position of lexical approach and mental illustration or simulation. Even though there are a few studies in this area, the context must be extended to the sentence level. There are a few studies revealing the impact mental translation has on language comprehension, focusing on the repercussion that various aims and tasks apply on the process, and the issues of how language learners share their concentration between comprehension and knowledge of the source text and rendering of the target text. Altogether, the objective of a task has an effect on the level of cognitive effort drawn in a better comprehension. Mental translation requires higher cognitive interests and demands on comprehension, as meaning is synchronously built, reorganised and reformulated into a foreign language. The impact that translation has on language comprehension relies on the influence that different objectives and tasks apply during the process, and the issues of how learners pay attention between comprehension of the source language and production of the target language. In line with theories of mental simulation, when translators use the source language, they are creating meaning and establishing the accurate linguistic classifications in the target language to allow alteration in that language.

> "The most important condition for oral translation is the power of the translator to communicate effectively and to transfer accurately and reliably. Oral translators in this sophisticated, fast, and intensive process of data exchange, in addition to full coverage of both the source language and target language and subject matter of the speech, must also have a high speed." (Oraki A., Tajvidi G. 2020: 42–56.)

Thinking while speaking in a foreign language requires more time and decisions because language learners had to speak the language simultaneously as thinking. Thinking while speaking demands the highest standards of cognitive effort because mental translation needs disruptive thinking, with recurrent shifts between source and target language. Mental translation has an impact on the level of cognitive effort involved in the language comprehension, and has higher cognitive demands on comprehension, meaning being simultaneously formulated and switched into a different language.

Mental translation research is currently in advantage position where it could provide with extending comprehension of mental processing in bilingual or multicultural circumstances. Outlining the right topics and standardising research objectives and methods is critical to lead mental translation too close to other cognitive science branches and to reveal the importance of its findings in collected experimental research. Integrative work depicts the impact of mentally translating from L1 into L2 and how research in this field was not properly admitted although its use may be more typical than translation into the mother language. It clarifies how translation and cognition evolved in sync and how it will pursue to promptly develop. One of the objectives of cognitive science approaches in mental translation research is to model the cognitive processes in language speakers / translators' reactions. The fundamental goal of such creative concerns is to demonstrate an intensive comprehension of how mental translation is produced, thus identifying the major factors on which the mental translation process depends and how these terms interfere with each other.

4. Translation and Cognition

Mental translation widely relies on cognitive science, merging the study of mental processes into foreign language study. The knowledge processing archetype was a support of the conceptual core of the cognitive sciences and was doubtlessly adopted by cognitive translation scholars. However, there are two levels of cognitive knowledge processing, currently focused on the computational level and the algorithmic or representational (mental processing) level. The performance / implementation level where mental processing takes place during mental translation process deals with neural structures and patterns – the area of cognitive neuroscience. There are some elementary issues in mental translation from the viewpoint of the knowledge processing and the implementation level where mental translation is accomplished in neuronal patterns. It also reiterates contemporary research trends and reveals the potential items and advantageous circumstances of cooperation between mental translation and cognitive neuroscience.

Following cognitive science, cognitive practices are processes involved in memory, decision making, deduction, reasoning, learning, and other mental processes (Hutchins 2000:1). Cognitive translation processes consist of acknowledging how the language learner's mind operates while performing the complex work of mental translation. Interpreting mental translation during creative tasks based on cognitive

translation practices it might be categorised as belonging to one of three steps, being prevailed by a number of knowledge processes: (1) planning, (2) drafting and (3) postdrafting (Jakobsen 2003). These steps are charted in a straight way, but this procedure as a whole might be taken into consideration as an iterative and reiterative process, in which different sub-processes do not take place in a rigid order, but they become effective at distinct moments throughout the actions. It is concluded that knowledge processing happens in various partitions: the sensory register, the short-term memory and the long-term memory. In the sensory register, the whole knowledge is cryptographed into a subjunctive internal design and it is saved and stored extremely instantly. Of this knowledge just a small quantity is stored into the short-term memory through attention. The short-term memory is restricted in volume and extent (15 to 20 seconds). From this stage knowledge in the shape of elaboration will reach the short-term memory where, all information which is not instantly operated with, is stored.

As a cognitive mental process, mental translation involves two features of language efficiency: automated process, the subconscious level and non-automated process or the conscious level (Gabryś-Barker 2009: 26-33). When the foreign language learners need information stored in the long-term memory, the knowledge is recollected from the long-term memory and then activated in the short-term memory.

Taking into account the fact that cognitive processes are determined partly by external processes, the ultimate current in cognitive science is to no longer consider knowledge processing as a procedure occurring exclusively inside the learner's brain, but as the interaction between human brain, body and the external environment / situation. It is accepted that language learners analyse and cerebrate by carrying out physical, epistemic actions, ordering and reordering the environment and changing their focus of perception and attention through eye and body movements. Any strivings and efforts to disclose translation by depicting processes in the brain of a foreign language learner alone are due to fail. What we have to do is to merge investigations on what happens in a language learners' mind with what happens elsewhere, e.g. in their heads, in their living and learning environment and in their dialogues and interactions with their teachers or conversation partners. In other words, we need to focus on the relationship between the mind, the body, artifacts, and the social and learning environment.

Mental translation is a cognitive process where the foreign language speaker deciphers the meaning of the word or phrase, s/he interprets it in the source language and re-encrypts this meaning in the target language (Zlateva, 2000). Since mental processes cannot be directly noticeable, researchers use think aloud protocols - a procedure based on speaker's expression of their ideas and concepts - while mentally translating. Numerous experimental studies have been supervised with the effort of perceiving what persists in speaker's mind during mental translation stage.

They focused on individual think aloud protocols on various aspects of the process including comprehension, review, creativity, time pressure. Nevertheless,

monologue protocols were also regarded as practical instruments for accessing metal translation process in spite of their critical analysis.

Monologue protocols were not only regarded as being unachievable in the translation process; they were also regarded as unnatural. Normally, talking to oneself is not an ordinary thing to do. Monologue protocols consisted of plenty of information and that many processes such as extracting, making the selection and deciding about a correspondent / equivalent in the target language text were not verbalized. There could be determined some experimental, pedagogical suggestions for more advanced and effective communicative teaching and learning. Being aware of what is happening in the mind of the foreign language learners such as decision making, issue solving and decoding cultural aspects while mentally translating will help more the evaluation of mental translation rather than the existent type of its evaluation regarded as a final product. In fact, this method might enable students or teachers while making use of mental translation to develop a critical attitude towards their ideas, acknowledging optimal solutions and discard unsatisfactory ones while learning or teaching foreign languages.

Mental translation processes occurring during learning a foreign language might be regarded as strategic reactions and behaviours adopted to render the source language issues into the target language in accordance with the communicative language assignment. In order to implement a communicative goal, a language learner must enable the interlocutor to understand, interpret and evaluate the information being passed. Seen from such a perspective, speaking seems a very complex activity which combines the processes of intending, planning, constructing and monitoring. Additionally, these operations have to be executed in fractions of seconds according to the demands of communicative fluency (Dakowska 2005: 233).

5. Translation as mental simulation

It is recommended to associate mental translation (a subcomponent of language) with cognition because cognitive elements allow language to develop and materialize. Foreign language acquisition through communicative teaching and learning approach might be illustrated as autonomous and self-constructive entity, while the reality could reflect a different idea. A foreign language is a mental entity requiring and consisting of evolution, acquisition and development. Foreign language viewed from the mental translation involvement is a sociopsychological occurrence because the mental items and factors and the neurons connect with the circumstantial components (contextual factors) which are examined as mandatory for language display and expansion. It is important to mention that human brain is effective enough to comprise all human mental competences together with language and mental translation.

Outlining the analytical items and concepts used to estimate the research purpose relies on a special objection in the positioned, materialized and extended cognition approach, as there is no well-established convention in mental translation to rely on and no conventional cognitive scientific patterns to employ. The

circumstances would be dissimilar if we were confiding in other more conventional cognitive science procedures.

In the process of mental translation, language learners are the fundamental cognizer in charge of reconstructing meaning from mental simulation. They need to rephrase the meaning of the communication performance and transfer it to the audience of the translated text in such a way – that is, finding the right linguistic labels – that allows them to reconstruct it by themselves. But this process of mental simulation is extremely complex so that students find themselves restrained by many different determinants, which might also be integrated into their theory and perception process, such as the restrictions of the social context, those of the learning and living environment, or the prevailing standards from the cultural and classical context. All knowledge plays a role in learners' mental experience filtered straight through their personal abilities, such as their knowledge foundation, theoretical options and preferences, individual traits and personality features, to mention a few of them. The students' cognitive language learning process might be regarded as accessible in order to provide much data, while inaccessibility to cognitive processes is linked to individual mental translation procedure. If this conclusion is correct, one recommends that researchers should use dialogue think aloud protocols to elicit better mental translation strategies and practices of language learners.

7. Conclusions

Communicative language teaching is one of the latest humanistic approaches to teaching approaches which gives emphasis to the language use and provides more opportunity to learner to practice the target language in spite of its limitation. Today, the main apprehension of most learners of English as a foreign /second language is whether they are able to use the language independently and fluently in a variety of real-life communicative situations.

Undoubtedly the cognitive process is an important element in mental translation throughout the entire translation process (Dejica, D. & A. Dejica-Cartiș. 2020). Translation has long been identified as a socially situated activity and is referred to as the interaction between the process and context. Translation as subfield of language, therefore, is a cognitive and context bound phenomenon and is regarded as an act and event. Regardless of its various modes, it roots in psycho -social interaction. Accordingly, translation is considered as a social and mental event that manifests in context and is referred to as a biological entity to which cognition is a source of energy. The cognitive power can be realized in space (environment) through translation (interpreting) activity. Translation as an artful communicative task, requires the dimension of mental power and context (space) for realization. The absence and malfunctioning of any of these elements result in the disruption of the flow of communication and increased amount of waiting time and lack of satisfaction.

In this article we intended to trace the relevancy that cognition has with mental translation and that to pave the way to stimulate for new findings and to make

the language learner aware of cognitive limitation as an impairing element in the translation activity.

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