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# Cognitive-Dynamic Principle of Simultaneous Interpretation

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**Annotation:** *This article is devoted to the procedural aspects of simultaneous translation. The author gives its description from the point of view of the cognitive-dynamic concept. The article provides an analysis of the functioning of cognitive mechanisms at various stages of simultaneous translation activity. In conclusion, the author points out the need for the translator to analyze errors and difficulties, as well as ways to eliminate them in order to increase the professional reliability of the translator and transfer experience to future specialists.*

**Keywords:** *gene factor, cognitive mechanism simultaneous translation, cognitive mechanism, cognitive-dynamic concept, stress factor, professional reliability.*

## I. INTRODUCTION

However, all of the above models are distinguished by a certain superficiality in the consideration of specific elements of the translation process. The cognitive-dynamic concept put forward by us allows us to demonstrate in detail how the whole process proceeds and how the functioning of cognitive mechanisms changes depending on one or another influence of stress gene factors of the translation situation. This is the reason for the novelty of our study.

The purpose of the study is to describe the process of simultaneous translation from the point of view of the cognitive-dynamic concept. To achieve this, we have completed the following tasks:

- 1) Point out the changes that occur in the functioning of cognitive mechanisms with an increase in stressful load, as well as countermeasures used by the translator to adapt to the changed conditions of the translation situation;
- 2) To characterize the activities of an interpreter on the eve of the act of simultaneous translation;
- 3) consider the functioning of cognitive mechanisms at the initial stage of simultaneous translation;
- 4) TO note the process of self-control and analysis of one's own translation activities by a simultaneous interpreter.

The results of the study can be used in further study of the procedural aspects of simultaneous translation, as well as in organizing the process of training simultaneous interpreters.

The preparation of a simultaneous interpreter for the act of translation begins long before the start of the event at which he is to carry out this type of translation. In our opinion, it is conducted in two main directions: linguistic and psychological. All the preparatory activities of a simultaneous interpreter are aimed at adjusting their cognitive mechanisms to work in the rapidly changing conditions of the interpreting situation. Therefore, we will consider the steps taken by the translator in refraction to the cognitive mechanisms of simultaneous translation.

Linguistic training at this stage includes issues related to the interpreter's familiarization with the pronunciation features of the speaker, clarification of the terminological component of the event and the possible intention of speakers based on emerging trends among representatives of the relevant community, constant monitoring of changes in the language system of a foreign language (cognitive mechanism for switching between languages), clarification of standard methods for translating certain lexical and grammatical units (cognitive mechanism for choosing a translation option), training speech compression (cognitive mechanism for probabilistic forecasting) and shifting attention to the speaker's speech (cognitive synchronization mechanism) [8, 67].

In preparation for the act of simultaneous translation, the interpreter studies the previous speeches of the speakers whom he will have to translate through all possible channels, notes for himself their pronunciation features and tries to develop an approach to their perception and understanding in advance. For more successful linguistic support of the event, the interpreter holds meetings with the customer to receive preliminary working materials containing information on a narrower topic and the terminology used in this case. If necessary, the interpreter also receives the relevant glossaries, as well as a list of participants in the event. The synchronizer also analyzes (using open sources and his own experience in this thematic area) possible international components for better processing of information and conveying the main idea of the speaker to the recipient.

A simultaneous interpreter constantly monitors changes in the language system of a foreign language. To do this, he uses certain printed and / or online publications, where materials are printed both of a narrowly thematic nature and related to the language as a whole [2, 81]. Among them we include electronic libraries of fiction, journalistic and scientific sources, and so on. Such publications contain information about lexical units that have emerged recently, terminological abbreviations, word-formation trends, and so on. When preparing for simultaneous translation, the translator remembers and clarifies the standard techniques of various different constructions in two languages. For example, when translating from Russian or Uzbek into English, it is necessary to remember the location of the main and secondary members of the Russian or Uzbek sentence in the statement. Often, minor members come first, and only then the main ones. This is due to the actual articulation of the Russian or Uzbek utterance. Therefore, when translated into English, the secondary members of the Russian or Uzbek sentence become the main members of the English sentence. In this case, the syntactic restructuring of the entire sentence occurs.

To train the shift of attention to the speech of the speaker (this is especially important when translating from a foreign language into a native one), the translator can use parallel listening to external speech and reciting a poem. At the same time, he tries to pay maximum attention to the speaker's speech, and not to the learner's own verbalization.

## II. INITIAL STAGE OF SIMULTANEOUS TRANSLATION

After the start of simultaneous translation activity, the incoming sound information is identified with certain phonemes and morphemes, which are subsequently combined into lexemes and compared with the standards stored in the translator's long-term memory.

At the stage of information processing, the recognized lexemes, depending on their place in the sentence, often receive a river affiliation and their inherent syntactic function. In addition, the translator receives initial information regarding the intention of the utterance and the whole speech of the speaker in order to convey the meaning of the speaker to the recipient in as much detail as possible. At this stage of the translation process, a certain decoding of the original message takes place.

Simultaneously with these two cognitive mechanisms, the mechanism of switching between languages is also activated. Having understood the meaning and semantic load of the speaker's speech segment, the simultaneous interpreter proceeds to compare the semantic content of the original message with the available analogues and/or correspondences in the target language. There is a certain interpretation (semantic transfer) of the segment of the speaker's speech [5, 89].

After that, the translator searches for possible lexico-grammatical options for conveying the semantic content of the original message in the target language. A certain assumption regarding certain options is made by a simultaneous interpreter immediately after understanding the meaning of a segment of the speaker's speech. In this case, the translation version is adjusted taking into account the norms of the target language. In the future, the translator verbalizes it in the target language.

From the moment the initial sound information arrives until the choice of the translation option, the cognitive mechanism of probabilistic forecasting functions. It helps to make an assumption, based on the linguistic and extralinguistic data available to the translator, about the possible completion of the speaker's speech segment, as well as about his intention.

The whole process of simultaneous translation is provided by the functioning of the cognitive mechanism of synchronization. It allows you to control all cognitive mechanisms and shift active attention to the one in which there are difficulties. Under normal conditions, most of the active attention is directed to the speaker's speech, since it is a source of new information necessary for the interpreter to carry out adequate simultaneous translation activities [2, 85].

When deploying the process of simultaneous translation, a simultaneous interpreter faces difficulties of various origins, which can have a positive or negative stressful effect. In this case, an altered state of linguistic consciousness may occur, as a result of which the translator loses, to one degree or another, the ability to carry out translation activities. This is due to an imbalance in the work of cognitive mechanisms.

When difficulties arise in understanding the speaker, the translator shifts significant attention towards the cognitive mechanism of perception and understanding, often depriving other mechanisms of important (controlling) attention. As a result, there is a time gap between the perception of the original message and the verbalization of its translation, which can dramatically complicate the perception of the subsequent segment of the speaker's speech and ultimately lead to the loss of some information. One of the countermeasures that level the negative consequences of such a stressful load is the background knowledge of the translator, relying on which he can fill in the gaps in understanding and prevent distortion and or loss of information.

Ignorance or misunderstanding of a certain frequently occurring terminological unit also has a negative stressful character. In this case, the interpreter usually comes to the aid of his partner in the simultaneous translation booth. Otherwise, the simultaneous interpreter will lose essential information when interpreting.



### III. CODE OF CONDUCT

If the translator does not know that this is a "code of conduct in the South China Sea", then it will be difficult for him to translate it. In the process of simultaneous translation, due to the fatigue factor, when the simultaneous interpreter works in excess of the established work standards, there is a failure in the functioning of the cognitive mechanism for switching between languages. It leads to interlingual interference, when the syntactic and lexical structure of the source language is copied in the target language. As a result, the translator uses a syntax that is not applicable in the target language. In addition, "false friends of the translator" arise. An example of a syntactic collision:

As a result, non-government-controlled organizations emerged. - As a result, appeared non-controlled by the government organizations.

However, the translator always has the opportunity to carry out self-correction, since active attention extends to the functioning of this cognitive mechanism.

When choosing a translation option, it is important to take into account the norms of the target language, which can be violated by the translator in the event of fatigue and / or disruption of other cognitive mechanisms.

Due to fatigue and other stress factors, the cognitive mechanism of probabilistic forecasting also degrades. The simultaneous interpreter refuses to use it in favor of his own knowledge and syntax of the original message. Along with this, the attention of the translator, and, consequently, the entire cognitive mechanism of synchronization begins to fail.

It should be noted that a psychologically prepared translator is more resistant to stress and is able to work without interruption and for longer periods of time. In general, the attitude towards stress on the part of a simultaneous interpreter also has a significant impact on his professional reliability.

### IV. SUMMARIZING

Upon completion of each act of simultaneous translation, the simultaneous interpreter conducts a certain analysis of his activities. The results of this analysis are the steps that the translator needs to take in the future to improve his professional reliability.

In linguistic terms, this is a constant improvement in the knowledge of working languages, tracking in them modern trends in use, new lexical and grammatical forms, the ongoing training of methods for translating standard and newly emerging language structures.

In extralinguistic terms, this is awareness of current trends both in the thematic area and in the world as a whole; tracking the pronunciation features of certain personalities, the work of translating which, in principle, is possible.

In psychological terms, this is an increase in the stress resistance of the interpreter's psyche and the cognitive mechanisms of simultaneous translation, which occur with the help of hardware and non-hardware methods of induction of brain biorhythms necessary for work.

An important component in summing up the work of a simultaneous interpreter is teaching activities aimed at transferring one's own experience to students.

This happens due to the analysis of difficulties and mistakes, as well as ways to overcome them and the synthesis of some new knowledge, which will prepare new specialists in the field of simultaneous translation to work in a rapidly changing environment of the translation situation.

### V. CONCLUSION

Our study of the process of simultaneous translation from the point of view of the cognitive-dynamic concept made it possible to trace in detail how simultaneous translation activity unfolds, how the cognitive mechanisms of this type of interpretation function at different stages, and also what steps an interpreter needs to take to improve his own professional reliability.

The cognitive-dynamic approach allows us to trace the flexibility of the cognitive mechanisms of simultaneous translation, which is necessary for the uninterrupted and adequate transmission of incoming sound information in the target language. However, there is a question concerning the influence of the degree of flexibility of cognitive mechanisms on the adequacy of the simultaneous translation itself.

The results of this study can be used for further theoretical study of issues related to simultaneous translation. Also, they can be taken into account when organizing the educational process for the training of simultaneous interpreters both within the framework of basic educational programs and programs of additional education.

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