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**THE COGNITIVE AND INTUITIVE NATURE OF THE  
TRANSLATION PROCESS**

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***Abstract***

This article considers the cognitive and intuitive aspect of the translation process as a heuristic search for a translation solution based on implicit mental models of an associative and subjective nature. As their theoretical underpinning the authors analyzed studies of the cognitive aspect of translation activity, the specifics of studying translation intuition and use of the ‘Thinking Aloud’ method for obtaining experimental data. Translation intuition is considered as a particular type of intellectual activity based on the subjective analysis of a particular situation. Scrutiny of a translation as a functional and cognitive process of active intellectual activity implies the selection of a translation equivalent that is itself a strategy for utilizing the subconscious, based on sensations and empirical knowledge. As part of the practical experiment at the University of Bath the authors describe the strategy of searching for translation solutions which are presumed to be based on translation intuition: As a result, the authors come to the conclusion that the intuitive solution to a translation problem is based not only on analysis and synthesis, but also on the ability to bring into play deeper structures related to accumulated experience and individual sensations and feeling for the language, including the involvement of situational frames.

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**Keywords:** Translator intuition, cognitive, translation process, situational frame, think-aloud protocol.

## 1. Introduction

The development of cognitive translation studies as a modern academic discipline has a number of critical bases that force us to consider translation from conceptually different angles: transdisciplinary and multi-paradigmatic. It is not possible to study the translation process outside of cognitive processes in that the process itself is realized as part of the interaction of several internal systems, including memory, information processing, the structuring of knowledge and its management. As Julian House puts it: “over and above a concern with new technological and experimental means of tapping the cognitive process of translation, a new combination of a theory of translation and a neuro-functional theory of bilingualism has also recently been suggested <...> This new linguistic- cognitive orientation in translation studies emerges from a critical assessment of the validity and reliability of introspective and retrospective thinking- aloud studies, and of various behavioral experiments and the usefulness and relevance of recent bilingual neuro-imaging studies” (House, 2014, p. 7).

A crucial conceptual role is played by the interpretation of reality which forms the basis for the development of individual cognitive models and which enables situational adaptation and through which decisions are made, as well as the intuitive component, a part of the decision-making model, inter alia those pertaining to translation. According to Hanna Risku, “Cognition is not just an information manipulation process in the brain, it is contextualized action embedded in a body and increasingly mediated by technologies and situated in its socio-cultural environment” (Risku, Windhager & Apfelfthaler 2013, p. 33). This reflects the process of decision making through interpretation and cognitive restructuring of the ingoing information. Intuition testifies to the heuristic way of searching for translation solutions, and is a strategy for using the subconscious, based on sensation and empirical knowledge. The development of heuristic information-seeking skills based on guesswork and reliance of extra-linguistic knowledge is an important premise for the development of translation competence.

### 1.1. Cognitive aspect of translation process

Translation as a functional and cognitive process of intellectual activity assumes that at a certain stage the translator needs to take a particular decision. Over several decades within translation theory the decision-making process has been viewed from the structural and transformational approach, which assumes the engagement of the relevant linguistic knowledge and the technicalities of translation transformation. However, modern cognitive research is increasingly finding evidence of the cognitive component in the translation process. As Sandra L. Halverson has pointed out, “a cognitive linguistic theory of translation <...> takes the cognizing translator as the locus of the situated event—the individual translator is taken as the source of the translated text, and the theory must then account for the ways in which the text emerges as a contextualized interpretation of an anterior text and a re-expression of it using alternative forms” (Halverson, 2013, p. 65).

Research directions in Translation Studies have been largely enriched from cognitive science in terms of an interdisciplinary approach and exploration of the workings of the translator’s mind. This is expanded in the latest publication “The Handbook of Translation and Cognition”. As noted by Aline Ferreira and John W. Schwieter in the Introduction of the Handbook: “The Integration of Cognitive Science into Translation and Interpreting Studies (TIS) has formed an interdisciplinary-rich field” (Ferreira & 180

Schweiter, 2017, p. 3). The influence of other disciplines, such as psychology, cognitive science, neuroscience and language technology on translation research is discussed by O'Brien, who uses the term 'borrowing', which though may soon become a mutually beneficial relationship (O'Brien, 2013, p. 6).

The cognitive and psychological aspect of translation decision-making is emphasized in the research of Julian House, who affirms the need of a 'shift' towards a combination of linguistic and cognitive approaches when considering translation. It is important to provide a theoretical description of the strategies of processes of understanding and taking decisions in the work of the translator with a text, as it occurs in his/her 'bilingual consciousness' (House, 2014, p. 90).

Besides, with the advent of the concept of cognitive translation there is a shift towards the process of translation in itself with all its inner complexities being reconstructed or modelled by researchers (Risku & Windhager, 2013; Risku, 2014). The research of Celia Martin de Leon is worth mentioning as an example of a penetrating exploration into meaning through various paradigms and approaches (such as classical, connectionist, prototype theory, frame semantics and the most recent "embodied" and socially "situated" approach) and its application to translation research (Martin de Leon, 2013). By adjusting cognitive models to translation, a larger perspective of understanding its process, and thus the improvement of translation efficiency, is opened up. As Ricardo Martín Muñoz puts it: "Adopting a cognitive perspective implies precisely changing the focus of attention from the text to the processes involved in its production and interpretation" (Muñoz, 2013, p. 83).

## **1.2. Intuitive decision-making in translation process**

Cognitive research allows us to identify the fact that translation is occasionally an intuitive decision at odds with the selection of ready-made structural transformations. Among most recent research examples, intuitive decision-making in translation is explored in work by Séverine Hubscher-Davidson. In her paper "The role of intuition in the translation process: A case study", intuition is viewed as a potentially vital component of translator behavior which could predict individuals' translating effectiveness." (Hubscher-Davidson, 2013, p. 8). This research is based on an analysis of verbalization data from a translation process study with the view of intuition as a psychological construct.

Among Russian researchers pride of place must go to the work of Elena Vadimovna Alikina carried out at Perm National Polytechnic University. Her work posits intuition as an interpretive whole that constitutes the 'intuitive space of the translator that includes heuristic guesswork allowing a non-standard translation decision to be taken in a problematic situation'. That said, the translator must possess a certain 'feeling for the language' to ensure the correctness of the speech of all the players in the translation process, as well as the 'intercultural sensibility' ensuring that conventional models of behaviour in the adaptation and integration of various cultures are guaranteed' (Alikina, 2013, p. 14).

As a cognitive and psychological term, intuition is seen as a category of cognitive linguistics, alongside 'linguistic competence', which is crucial in the process of perceiving and understanding linguistic meaning (Borovitskaya 2013, p. 60).

In our research the intuitive component of the translation process serves as an important indicator of the subjectivity of translation activity. Acceptance of intuition in many ways, apart from the recognition

of consciousness and consistency in translation, provides for a certain impulsiveness and spontaneity in intellectual activity, which cannot always be regulated or justified.

### **1.3. Think aloud protocols in translation research**

Recent studies of the translation process show that most research is driven by its teaching methodology potential aimed at increasing translation competence with the development of meta-cognition and practice. A detailed description of various methodological experiments and techniques ranging from written commentaries on problem solving decisions and think-aloud protocols explores more sophisticated techniques, such as key stroke logs and screen recordings of translation, which can be found in Massey and Ehrensberger-Dow's paper (Massey & Ehrensberger-Dow, 2013). However, apart from all limitations and challenges discussed by researchers (Dragsted & Carl, 2013) questions still remain concerning the level of complexity, translator behaviour and the validity of the research methodology (Chmiel, Agnieszka & Iwona Mazur, 2013).

In this research empirical and inductive methods through verbalizing and speculations in retrospect about what had happened in the mind of the translator can help to give a larger picture of the decision-making process and the role of the subconscious, intuitive factors that have often been questioned by researchers within traditional linguistic models of translation. Thus, we argue that despite certain limitations of the method, think-aloud protocols can be used as a complementary tool for obtaining new insights into the translation process and thus bringing new potential for translation research purposes.

## **2. Problem Statement**

When describing strategies for seeking translation solutions, scholars mainly restrict themselves to a search that is conscious, objective and consistent, on the basis of translation materials which lend themselves to the logical systematization of appropriate translation actions. However, translation practice shows that translation is often based on guesswork, or translation intuition as it is understood within the remit of this study: that is, as a heuristic search for a translation solution based on implicit mental models of an associative and cognitive nature. In this instance subjectivism involves situational and empirical analysis based on personal judgements of the situation under due scrutiny. In our view, translation intuition constitutes a particular type of intellectual activity based on subjective decisions.

Within the scope of this study we consider implicit memory against a background of the intuitive knowledge acquired through everyday experience. This is contextual knowledge that is activated in the process of translation through a network of subconscious associations. Implicit memory uses the brain's ability to gather together experience, and thus we create mental models in the form of situational frames based on repeated events.

## **3. Research Questions**

With the view of the cognitive aspects of translation the research of translator's intuition based on empirical process-oriented case study primarily relies on introspection and speculation in retrospect and raises a number of questions:

- Does concurrent verbalization like Think-aloud reflects only analytical decision making or does it show the existence of the subconscious hermeneutic aspect as well?
- How can the activation of cognitive structures related to experience and personal sensations affect problem solving during the translation process?
- Is data processing during intuitive selection of equivalents done through frame activation and using knowledge structures of the translator's memory?

#### **4. Purpose of the Study**

This study attempts to provide theoretical and practical foundations to examine translation intuition as an innate heuristic ability for finding translation solutions, which is a vital addition to the cognitive essence of a translation.

#### **5. Research Methods**

For a tentative confirmation of translation intuition in practice, an extempore translation experiment 'Thinking Aloud' was carried out. Students of Russian on the 'Practical Translation Course' unit from the Department of Politics, Languages and International Studies of the University of Bath (United Kingdom) were invited to take part in the experiment. The students were asked to translate unseen an information sheet on the launch of the new Blackberry operational system from Russian into English. All the attempts were recorded.

The following factors were taken into account when selecting the text:

- the age group of the students being tested and their interests (the text discusses the new smartphone platform);
- the text's level of difficulty and the accessibility of the information.

The language of the original text was chosen with the intention of verifying the translation intuition of students in the following situations:

- The student comes across a word to translate whose meaning he/she does not know;
- The student thinks that he/she knows the meaning of a word but has difficulty in placing it within the appropriate context of the sentence;
- The student has a general idea of the meaning of a word based on its semantic root.

The experiment also attempted to identify solution-seeking strategies and the possibility of attributing them to the translation intuition phenomenon. Examples are presented in recorded form of the 'translations aloud' of eleven students. A significant part of this study will be the examination of some of the most indicative recorded examples of those students who encountered translation difficulties.

#### **6. Findings**

The findings of the experiment identified the following translation strategies:

1. Dependence on the word's semantic root, search for the closest synonyms which are then applied to the context. The result is a narrowing of the word's thematic meaning and an associative search for the appropriate contextual situation.

**Original:** Eto sovershenno novaya platform osnovannaya na programmnom obespechenii, priobretennom kanadskoi kompanieu v 2010 godu. [This is a completely new platform based on software acquired by a Canadian company in 2010].

**Recorded translation:** Sovershenno [absolutely] perfect [pause] brand new [pause] so this brand new platform was founded [pause] made em [pause] what is needed to produce [pause] software, program, priobretat' [buy] pokupat' [purchase] from the Canadian company [pause] so the platform has been bought from the Canadian Company.

In this translation the student considers various synonyms and chooses contextually the most appropriate with thought given to semantic compatibility. The phrase 'what is needed to produce' is a thought process seeking semantic connectivity in order to describe the situation correctly. In our view, this can be designated as situational and empirical analysis which allows the context to be 'filled in' on the basis of subjective experience. The student in this instance recreates a possible situation that may arise when new software is created.

**Original:** Vsye eto porodilo strakhi, chto kompaniya, kotorays pervoi vyshla na rynek smartfonov desyat' let nazad, nakhoditsya na poslednem izdykhanii. [All this has generated fears that the company which first appeared on the smartphone market ten years ago is now breathing its last].

**Recorded translation:** All of this became or [pause] it's like scary or inactive in some way [pause] the fast appeared on the smartphone market 10 years ago [pause] OK the last sigh. The company can combust or shutdown.

In this translation the student searches among several synonyms to match the context, inter alia de-metaphorizing the expression 'the last sigh' (poslednii vzdokh), articulating two versions of his translation 'combust' (progoret') and 'shutdown' (zakryt'sya).

2. Completing the meaning by relying on a broader context, linguistic environment of a word or phrase whose semantics is known but the exact meaning is arrived at on the basis of 'guesswork' by the translator, which as a result leads to an adequate or inadequate translation of the text. Having said that, the translator's subjective logic is preserved within the scope of the mental model (situational frame) of the event created.

**Original:** Perekhod na nee byl svyazan s mnozhestvom zatrudnenii i zaderzhek. Neskol'ko raz kompaniya otzyvala svoi novye telephony, proiskhodili i otkazy yee systemy svyazi [The transition to it was associated with a lot of difficulties and delays. Several times the company recalled its new telephones, and its communication system occasionally broke down].

**Recorded translation:** The journey of the BB was connected with derzhat' [hold] like taking, keeping, possession [pause] is related with the work and delay. I suppose the BB was designed for people with hard work and [pause] So the transition to a new model was connected with tasks, complications, difficulties and delays. A few times the company rejected the new telephone.

The student's ad hoc guesswork in this instance focused on the difficulties and delays which he associates with people engaged in hard toil. The result is a sense that the text speaks about 'some problems', but through an incorrect association the final translation becomes distorted.

**Original:** V dekabre proshlogo goda v pervye stalo sokrashchat'sya I chislo pol'zovatelei telefonami kompanii. [In December of last year the number of users of the company's telephones also began to decline for the first time].

**Recorded translation:** In December there appeared [pause] ah the number of people has been reduced – ok - in December last year fewer people started using it. I'm guessing because of those holdups and difficulties.

In this example the student's phrase 'I'm guessing' is crucial, as it reflects a 'guesswork' strategy based on situational experience and context. The interjection 'ah' indicates a positive result of 'guessing' the word and fitting it into the proposed context.

3. Selection of an equivalent to translate an unfamiliar word relying on subjective associative experience based on the proposed contextual task.

**Original:** Ne podlezhit somneniyu, chto sushchestvuyut milliony potrebitelei, kotorye v perviye poznakomilis' s potrebitelyami blagodarya produktsii firmy RIM. [There is no doubt that there are millions of consumers who have become acquainted with smartphones for the first time through products of the firm RIM].

**Recorded translation:** So doubt [pause] negative [pause] nobody doubts there are millions of [pause] I don't know the word [pause] who can use smartphones [pause] consumers or customers or something, who got acquainted with smartphones.

**Original:** Eto sovershenno novaya platform, osnovannaya na programnom obespechenii, priobretennom kanadskoi kompaniei v 2010 godu. [This is a completely new platform based on software acquired by a Canadian company in 2010].

**Recorded translation:** It's a new modern platform something about the company in 2010 based on the program of [pause] I don't know [pause] the software [pause] company. There should be a service provider or something.

In both examples the student frankly states that he/she does not know the exact meaning of the word, but nevertheless suggests a version and provides a situational model of the content of the sentence. In the former example the word 'consumers' as translation of 'potrebiteley' produces a situation to 'use smartphones'. In the latter example the translation 'software' is produced logically from the situation when the company launches a new platform which should be supported by a specific program. Activation of this situational frame is also reflected in the additional thought process of the student as recorded: 'there should be a service provider or something'.

## 7. Conclusion

The findings of the research into the intuitive aspect of translation have allowed us to come to a number of conclusions. First and foremost, when examining the means by which the translator gathers knowledge apart from the analytical (objective analysis of facts and situations), the existence of the hermeneutic (subjective-intuitive) must be factored in, which forces us to revise questions of studying the translation process as a stage-by-stage and consistent set of translation activities. Acceptance of the unconscious and subjective in translation broadens the spectrum of factors that model the translation space,

and which therefore allows us to delve deeper into the very nature of the process itself in order to create new effective models.

The intuitive aspect of human thought is formed at the juncture of the conscious and the unconscious. Intuition in translation yet again emphasises the possibility of the subjective and variable when making translation decisions. Problem solving is based not only on the analysis and synthesis of various data, but also on the ability to bring into focus deeper structures related to experience and personal sensations and feeling for the language.

Finally, the development of translation intuition is linked to the development of the translator's memory, which structures knowledge of an epistemic and heuristic nature. The intuitive search for translation solutions has empirical foundations. The spontaneity of the intuitive selection of equivalents is linked to the activation of situational frames and the subjective processing of data, and this is not always subject to generally accepted logic or existing translation conventions.

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