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LITERARY TRANSLATION UNIVERSALS: A PSYCHOLINGUISTIC STUDY OF THE NOVICE TRANSLATORS' COMMON CHOICES

Abstract. The paper outlines the study of translation *S*-universals and is based both on the psycholinguistic model of literary translation, which combines two approaches to language organization in today's neuroscience – cognitivism and connectionism, and on the experimental data that demonstrate its validity. A free word association test was used to identify a translator's cognitive style as a universal tendency determining his linguistic choice. This psycholinguistic tool helped explore the ways how the meaning of the original text was reconstructed in the target text by the selected group of novice translators. A quantitative content analysis and psycholinguistic text analysis were applied for the purpose of studying the correlation between specific textual features of authors and those of the translators. As the empirical study showed, the *S*-universals maintain the status of common strategies depending on translator's cognitive style. A 'think aloud protocol' (TAP) analysis was used to explore the ways in which the meaning of the original text was reconstructed in the target text by the novice translators. A content analysis and psycholinguistic text analysis were applied for the purpose of studying the correlation between specific textual features of authors and those of translators. The results of the empirical study showed that the observed *S*-universals, while maintaining the status of common strategies, clearly depend on translator's cognitive style (analytical or synthetic), and his dominant channel (visual, auditory, kinesthetic) of source text perception.

Key words: *translation, psycholinguistic model, translation universal, translator's cognitive style, dominant channel of perception.*

Засєкін Сергій. Універсалії в художньому перекладі: психолінгвістичне дослідження спільних рішень перекладачів-новачків.

Анотація. Стаття висвітлює психолінгвістичний підхід до розуміння перекладацьких *S*-універсалій. Автор робить спробу продемонструвати їхню важливість та вплив на діяльність перекладача в контексті психолінгвістичної моделі художнього перекладу. Вона ґрунтується на двох парадишмах нейронауки – конекціонізмі та когнітивізмі. Вільний асоціативний експеримент має на меті встановити когнітивний стиль перекладачів. Конент-аналіз та психолінгвістичний аналіз сприяли встановленню кореляції текстових рис тексту оригіналу та

перекладів. Процедура «думай вголос» застосована для виявлення того, як реконструюється значення вихідного тексту безпосередньо під час відтворення тексту перекладачами-новачками. Результати емпіричного дослідження показали, набір *S*-універсалій як спільних стратегій перекладачів залежить від їхнього когнітивного стилю – аналітичного чи синтетичного, а також їхньої провідної модальності – аудіальної, візуальної, тактильної.

Ключові слова: переклад, психолінгвістичні модель, перекладацька універсалія, когнітивний стиль, провідний канал сприйняття інформації.

Засекин Сергей. Универсалии в художественном переводе: психолингвистическое исследования общих решений переводчиков-новичков.

Аннотация. Статья освещает психолингвистический подход к пониманию переводческих *S*-универсалий. Автор делает попытку продемонстрировать их важность и влияние на деятельность переводчика в контексте психолингвистической модели художественного перевода. Она основывается на двух парадигмах нейронауки – коннекционизме и когнитивизме. Свободный ассоциативный эксперимент имел целью установить когнитивный стиль переводчиков. Конент-анализ и психолингвистический анализ способствовали установлению корреляции текстовых особенностей текста оригинала и переводов. Процедура «думай вслух» применена для выявления того, как реконструируется значение исходного текста не-посредственно во время его воспроизведения переводчиками-новичками. Результаты эмпири-ческого исследования показали, что набор *S*-универсалий как общих стратегий переводчиков зависит от их когнитивного стиля – аналитического или синтетического, а также их ведущей модальности восприятия – аудиальной, визуальной, тактильной.

Ключевые слова: перевод, психолингвистическая модель, переводческая универсалия, когнитивный стиль, ведущий канал восприятия информации.

Introduction

The study of universal features related to the process of translation, however diverse their labels may be – 'laws' (Toury 1980), 'universals', 'regularities' (Papai 2004) or 'deforming tendencies' (Berman 1985) – has been a topic of long-standing interest in Translation Studies. In recent years, with the appearance of important new research tools in the form of electronic corpora and NLP methods, there has been a surge of interest in these features.

In our research we adopted a psycholinguistic approach to the study of translation universals, since this perspective made it possible to view translation as a process, thus making it possible to model literary artistic translation (Zasyekin 2010; Zasyekin 2012). The article is focused on the identification of common psycholinguistic approach for translating fictional texts from English into Ukrainian, along with the study of translators' universal strategies and is based both on the psycholinguistic model of literary translation and on the experimental data that demonstrate its validity.

Methods

The principal sources are the literary works *A Connecticut Yankee in King Arthur's Court* by Mark Twain, and *Franny* by J. D. Salinger, and their target (Ukrainian) versions by novice translators (students). Supplementary to this corpus are the literary works by Lesia Ukrainka, Yurii Pokal'chuk, Ray Bradbury, Dan Brown, and their respective English and Ukrainian versions.

A psycholinguistic approach to translation having been chosen for our study, it was necessary to apply a range of psycholinguistic tools. First, to identify the translators' cognitive style as a universal tendency determining his linguistic choice a free word association test was employed. This psycholinguistic tool helped explore the ways how the meaning of the original text was reconstructed in the target language (TL) text by the selected group of novice translators. Secondly, a 'think-aloud protocol' (TAP) analysis, content-related and psycholinguistic text analysis were used for the purpose of studying the correlation between specific textual features of authors and those of student translators. Finally, a quantitative content analysis and psycholinguistic text analysis were applied for the purpose of studying the correlation between specific textual features of authors and those of translators. The procedures mentioned above are treated by psycholinguistic translation studies as reliable methods of finding out how mediators arrive at one decision or another while translating (Krings 1986; Sun 2011; Whyatt 2010).

Thirty-four undergraduate students (group 1) majoring in English-Ukrainian translation were selected for the purpose of the TAP-study aiming to establish the procedural S-universals. Group 2 consisted of forty undergraduate students majoring in English-Ukrainian translation. They were selected for the purpose of establishing the discursive S-universals. Students who had received more than three Cs in their translation courses were not allowed to participate in the projects.

The theoretical study and discussion
A psycholinguistic model of literary translation
Two approaches to language organization in the brain accepted in today's neuroscience – cognitivism vs. connectionism – shape our psycholinguistic model of literary translation. According to the classical (symbolic) approach, supported by Noam Chomsky (1965), information is represented by strings of symbols, organized and governed by certain syntactic rules. From this perspective, the translator's cognition resembles digital processing, where strings are produced in a sequence of superficial syntactic structures in conformity with certain rules. The principle underlying the symbolic method of translating is serial and rule-based processing. This local serial processing (LSP) principle postulated in the context of the symbolic approach seems to be closely related to the left-hemispheric aspects of the functioning of the translator's brain. Indeed, the left hemisphere has been shown by a number of neurolinguists to be the zone where differences between objects or phenomena are perceived, while their unique features are fixed verbally (symbolically) in the nodes. Thus information obtained by the translator from the source language text is processed serially, stored in the neural nodes and then retrieved at the stage of target text synthesis.

Connectionism, a paradigm in cognitive science which emerged in the 1980s as a challenge to symbolism (Poersch 2007), aims at explaining human intellectual abilities using artificial neural networks. Human neural networks are viewed as simplified models of the brain, composed of large numbers of units (i.e., neurons) together with their synapses, all possessing their respective weights. The weights reflect the strength of the connections between the units, while modeling the effects of the synapses that link one neuron to another in the net.

It is of paramount importance for our psycholinguistic modeling of the process of literary translation that the connectionist theory can help us to explain a translator's simultaneous and intuitive spatial-like manner of comprehending source text information. In other words, one can trace certain similarities between the connectionist principle of parallel distributed activation (PDA) and that of the right-hemispheric gestalt functional principle. Indeed, the right hemisphere of the brain has been shown in a series of experiments to be the domain where holistic non-verbal information processing occurs. It relies basically on the mechanism of perceiving similarities and associations between objects, phenomena, etc. Similarly, connectionism focuses on information that is stored non-symbolically and not in nodes but in the connection strengths between the units of a neural net.

On this basis, it can be contended that connectionist representational concepts provide proof that the representations are sub-symbolic. The right cerebral is sub-symbolic in the sense that it is incapable of receiving linguistic information. The representations are coded associatively in patterns rather than the firings of individual units, and the relationships between representations are encoded in the similarities and differences between these patterns as prototypical structures. The prototype as a pattern that combines the most frequent features (stored in memory) peculiar for a certain set of instances serves like a signal to the translator either to accept or to reject a certain 'path' of interpretation.

Since nets can learn to appreciate subtle statistical rather than rule-based patterns, a translator is able to predict intuitively what comes next in the incoming information (original text) and/or, relying on certain prototypical patterns stored in his memory, can suggest immediately a ready-made translation option. Such automatic solutions to translation problems, however, are impossible under the LSP mode that follows strict rules. Therefore, incorporating a connectionist component in our psycholinguistic model of literary translation can help us explain the flexibility, creativity and insight present in the mind of a literary translator, since in connectionism it is postulated that a translator's neural networks can be trained.

Since the process of carrying out literary translation has been shown to follow both patterns of processing (LSP and PDA), we attempted to incorporate the two opposing models into a complex three-unit psycholinguistic model. The cognitive unit of the translator's personality includes his linguistic (grammatical, semantic, and pragmatic) and encyclopedic knowledge (thesaurus) that determine the order of his algorithmic operations in the phase of source text analysis. The affective unit encompasses emotional structures that determine his empirical experience and creativity as well as a set of strategies governed by the principle of association. The conative unit is the final link that triggers mechanisms related to target text planning and to the synthesis of its linguistic structures.

Information regarding the input text goes first to the translator's perception filter. It directs the input information, according to the principle of "neurological economy" of human mental efforts, to the affective unit located in a "non-controlled working space". This unit is responsible for finding quick associative translation 'solutions'. There the information is compared with the available 'old information' which at some previous

point has been obtained and stored as a set of prototypes in the translator's long-term memory. The choice of a certain prototypical structure as a starting point for the future translator's handling of source fragments is governed by mechanisms of equivalent substitutions and probabilities that entail active prediction of the input information on the basis of translator's experience. These statistical features are integrated with one another by an associative-holistic mechanism. This launches the process of activation that correlates with the effect of the similarity of prototypical categories.

The synapse as a simple structural and functional unit serving as a mediator for the interaction between neurons constitutes a prerequisite for the translator's knowledge acquisition by changing the unit's weight in his brain. In other words, any translation decision depends on the weight of neighboring competing synapses and is governed by the semantic distance between perceptual features of the input and a respective prototypical structure stored in the synapse. This structure is a trace of an active response to previous linguistic stimuli (previously translated texts). Thus, at the source text analysis stage the translator intuitively chooses a prototype that meets the requirement of being semantically closest (most similar), the most probable or statistically the most significant in the interpretation of textual reality. Moreover, the translator can observe the location of the actors, their feelings, state, objects, etc. described in the source text. As a result, s/he constructs a model of a situation which includes the possibility of forming a visual representation of it.

This 'pictorial' mental representation (Pitt 2012) goes to the conative unit of the translator's mind, undergoing lexical-semantic and grammatical transformations and before arriving at the blocks of target text planning and synthesis. This process is clearly related to the concept of connectionism as it involves the PDA principle based on an associative search for a prototype, i.e., a right hemispheric gestalt strategy. The 'rules' of gestalt information processing are not inborn (as suggested in cognitivist theories), but rather are inferred by a process of a statistical assessment of data resident in the translator's experiential memory.

Since the translator relies here on probabilistic structures, no linguistic analysis in the narrow sense is performed. This non-analytical strategy is economical in terms of time and effort. On the other hand, if the task of interpreting the information cannot be successfully handled by the gestalt mechanism, it is directed to the 'controlled working space' for additional consideration. That means that holistic gestalt processing is active until the translator determines that the resulting version (at the verification stage) contradicts the source text data (sense). If this is the case, the translator abandons the gestalt strategy and resorts instead to the more arduous and time-consuming alternative of analytical information processing.

Thus if the input information is either incorrectly perceived or has no similar (prototypical) features available in the translator's memory, his affective unit involves the analytical left hemispheric cortex areas, i.e., the 'non-economical' tendency. The analytical mechanism encounters rigid constraints and is forced to rely on a 'discursive' *top-down* processing path which conforms to certain rules. As part of the "controlled working space" of the translator's brain, the mechanism referred to above is triggered by his cognitive unit encompassed by encyclopedic and linguistic knowledge aiming at

forming inferential knowledge. As a result, the processed information is stored in the translator's memory verbally (propositionally) and this propositional structure serves as the basis for mental representation.

In this way, as has been demonstrated, this model encompasses both the heuristic (connectionist) and the algorithmic (symbolic) components of the translator's activity. The model has explanatory force in the sense that determinism and rules (prescriptivism) associated with symbolism, on the one hand, and probability and predictability (descriptivism) of connectionism, on the other, can facilitate the implementation of universal algorithmic operations common to all translators, and the heuristic operations specific to the experimental group under study. The validity of this model has been proved by a series of experiments conducted with undergraduate students in the translation department (see below).

Thus among the set of psycholinguistic translation universals I made a distinction between *general* and *specific (empirical)* regularities. General universals, observed in the translation phases of source text analysis and target text synthesis, are absolute, their nature is deductive, since they follow the pattern which bears the label, 'a phenomenon is observed in all processes of translation'. Cognitive-interpretational, communicative-productional, and neurolinguistic regularities constitute the set of general translation universals. Neurolinguistic universals involve the brain's laterality—the difference between the mental functions controlled by the left and the right cerebral hemispheres. This functional asymmetry, as discussed above, plays a vital role in a translator's discursive and thinking activity.

In contrast to the general translation universals, specific universals can be identified only on the basis of the empirical study and are significant statistically. Since they rely on empirically observed probability, they are inductive in nature. Thus, the specific universals encompass procedural, and discursive regularities. Since the paper is focused on discussing the procedural and discursive S-universals, their further empirical study is needed.

The empirical study
Procedural translation S-universals: TAP analysis
Studying the mental operations of translators who are in the process of translating audibly to themselves has been and still is one of the least-developed topics in modern translation theory. Of special interest is the empirical research relying on the TAP-analysis. Hans Krings (1986) treated this procedure in psycholinguistic studies as a reliable method for determining how translators arrive at decision to choose one alternative or another while translating: their strategies and solutions are not externally directed, questioned or overtly controlled. The search for meaning in the course of a dialog seems more natural than individual "thinking aloud". This approach makes it possible to reveal the translator's general and specific strategies on one hand, and the translators' comments which are perceived by scholars as being very valuable, on the other.

As a first step, to reveal the translators' dominant channel of perception all participants from group 1 were instructed to write a brief composition. Its topic was:

"Imagine that you are on a desert island. Describe your impressions". By means of an analysis of the content and the lexis of their texts, based on the identification and quantification of linguistic units possessing visual, auditory or kinesthetic meaning, it was possible to divide the translators into three categories: visual (V) translators (47 per cent), auditory (A) translators (32 per cent), and kinesthetic (K) translators (21 per cent).

V-translators predominantly used words which described their visual quasi-experience such as *saw, show, eyes, bright, to observe, at first sight, blue, in a distance green, yellow*, etc., whereas A-translators preferred using sound-related words such as *cry, noisy, whistle, crash, sound, loud,* and *splash*. However, the K-translators' texts contained an abundance of words such as *warm, cool, touch, strong, hot sand,* and *skin*.

The complete group of students was then grouped into pairs. In the research lab, each pair worked with a computer to which earphones and microphones were connected. Both translators were given the same excerpt from *A Connecticut Yankee in King Arthur's Court* by Mark Twain (see below) and were instructed to read it first and then to translate it aloud, making comments regarding their internal interpretation process. In this way it was intended that they would state and substantiate their translating hypotheses as well as explaining their solutions to the lexical, grammatical and stylistic challenges they had encountered.

(1) One thing troubled me along at first -- the immense interest which people took in me. Apparently the whole nation wanted a look at me. It soon transpired that the eclipse had scared the British world almost to death; that while it lasted the whole country, from one end to the other, was in a pitiable state of panic, and the churches, hermitages and monkeries overflowed with praying and weeping poor creatures who thought the end of the world has come.

Then had followed the news that the producer of this awful event was a stranger, a mighty magician at Arthur's court; that he could have blown the sun like a candle, and was just going to do it when his Mercy was purchased, and he then dissolved his enchantments, and was now recognized and honored as the Man who had by his unaided might saved the globe from destruction and its people from extinction.

(A translator's Ukrainian version)

Єдина річ, яка спершу мене стривожила, це те що люди виявили до мене значну зацікавленість. Здавалося, всі люди прагнули подивитись на мене. Як пізніше з'ясувалося, британців сонячне затемнення перелякало до смерті, в той час як це тривало, вся країна з півночі до півдня перебувала в жахливому стані паніки. Церкви, обителі та монастирі переповнились бідолашними істотами, які молились та схлипували, думаючи, що настав кінець світу. Згодом розійшлись чутки, що винуватець цієї страшної події став незнайомець – всесильний маг при дворі короляАртура; що він міг загасити сонце наче свічку, що він і збирався вчинити, проте після вблагань він розсіяв свої чари, і його визнали тоді як людину, яка могутньою силою врятувала світ і людей від смерті.

(A translator's Ukrainian version transliterated)

Iedyna rich, iaka spershu mene stryvozhyla, tse te scho liudy vyiavyly do mene znachnu zatsikavlenist'. Zdavalosia, vsi liudy prahnuly podyvytys' na mene. Iak piznishe ziasuvalosia, brytantsiv soniachne zatemnennia pereliakalo do smerti, v toi chas iak tse

tryvalo, vsia kraïna z pivnochi do pivdnia, perebuvala v zhakhlyvomy stani paniky. Tserkvy, obyteli ta monastyri perepovnylys' bidolashnymy istotamy, iaki molylys' ta skhlypuvaly, dumaiuchy, scho nastav kinets' svity. Zghodom rosiyshlys' chootky, scho vynuvatets' tsiyei strashnoyi podiyi stav neznaiomets' – vsesylnyi mah pry dvori korolia Artura; scho vin mih zahasyty sontse nache svichku, scho vin i zbyravsia vchynyty, prote pislia vblahan' vin rozsiyav svoyi chary, i ioho vyznaly todi iak liudynu, iaka svoieyiu mohutnioyu syloiu vriatuvala svit i liudei vid smerti.

After discussing each segment with their partner they wrote down their 'negotiated' target version of each source segment. Their interactive discussion and their reports were recorded saved to the computer hard disk, and then transcribed. To experimentally examine the procedural S-universals, I compared the similarities within a set of transcribed protocols and translated texts.

Discussion

The analysis of the transcribed records demonstrated that semantics plays a vital role in TL utterance production on the deep level, whereas syntax in not involved in the process. About three quarters of the translators (25 students) tended to shift *at first* to the beginning of sentence 1 in their TT. This phenomenon can possibly be explained in terms of generative semantics that supports the idea that the first stage of discourse production is the level of semantic conception.

Secondly, when interpreting clauses such as *Then had followed the news that the producer of this awful event was a stranger, a mighty magician at Arthur's court* containing factual information, the translators opted for a 'discursive' (Pitt 2012) or propositional method of information retention. This form of categorizing reality, as reported, was more economical and provided a time- and effort-saving strategy for processing the segments containing abstract information. By contrast, when interpreting information containing lexical units with a concrete meaning like *sun*, *candle*, and *eclipse,* the translators tended to visualize the 'picture' of the events being described in the ST. These units served as triggers for a sensory or 'pictorial' (Pitt 2012) mode of processing. Some other triggers of that type, as the respondents reported, were pragmatic markers such as 'apparently', and 'it soon transpired'.

This tendency which was revealed on the part of the translators can be explained by the availability of the connectionist component reflected in our model. It is governed by the PDA principle of a simultaneous or 'spatial' representation of events. Interestingly, this mode of representing events produced a saving of time and effort for the translators. They relied instead on intuitive solutions and tended to reproduce the SL sentence in the TL more quickly and with less mental effort.

Thirdly, closely related to the dual coding mentioned above, is the problem of processing time, because after a new verbal input has been identified, it has to be retrieved from memory and encoded into its proper TL system. The V- and K-translators' preferred method of translating abstract notions was to make them more concrete in the TL, as the following examples illustrate: *nation – liud* (Ukr) */ men, meshkantsi* (Ukr) */ inhabitants, hromadiany* (Ukr) */ citizens*; *British world -- brytantsi*

(Ukr) / *the British men*. All the A-translators reproduced the abstract meanings of such items without changes, suggesting the existence of direct TL equivalents.

Among other significant universal tendencies was more rapid and accurate reproduction in the TL of segments containing verbs that functioned as predicates, i.e., where actual predication was observed. The clauses with latent predication, for instance, where predicative was expressed by nouns or adjectives, were processed more slowly.

Fourthly, V-translators devoted more attention to the appropriate reproduction in TL of verbs denoting visual perception. A most interesting and genuinely new finding was that most members of the A-group tended to use more 'discourse markers' (Schiffrin 1987) than those in the V- and K-groups even if those items were missing in the ST. Due to the fact that discourse markers function primarily as indicators of logical ties between segments of information, a possible reason for their frequent use by A-translators, it seems, lies in their preference for a more logical and symbolic means of forming a world view and describing it, which can be considered left-hemispheric in nature.

Next, it should be noted that A-translators generally reported the use of an abstract propositional representation of the input information segment, while the V-translators preferred a 'pictorial' mental representation. This fact proves the idea which is reflected in our model, of the existence of two kinds of mental representations. However, the A-group resorted to visual methods of representation only in those cases when the propositional method demanded more effort. The K-translators, on the other hand, did not reported a preference for one over the other: they made use of both of them.

Finally, when the V-translators used a verbal/ propositional 'path' of thinking, they made more lexical and grammatical errors, and failed to objectively appreciate the situation. The lexical richness indices of their target texts decreased significantly. However, this group generally demonstrated higher indices of lexical meaning variety in their Ukrainian versions.

Discursive translation S-universals
Procedure and results
Group 2 translated an 8,000-character excerpt from *Franny* by J. D. Salinger into Ukrainian. As before, students receiving more than three Cs in translation courses were not allowed to participate in the study.

At first, to demonstrate the spontaneous associations with a selected group of words, the novice translators were given a free word association test including thirty word-stimuli (nouns, verbs, and adjectives) of neutral semantics. The prevalence of paradigmatic associations (words from the same grammatical class) in their responses showed that the translators tended to possess an analytical cognitive style whereas those who gave more syntagmatic associations (words from another grammatical class) were considered as bearers of a synthetic cognitive style. As a result, 22 of the translators were classed as 'analysts', 14 as 'synthetic' and 4 as being of 'mixed' cognitive styles, respectively.

Next, the corpora of the translators' written target versions were analyzed with the aim of identifying a set of discursive translation S-universals. The focus here was on the

lexical, syntactic, and stylistic features of the source and target texts. As the comparative study of the original text and forty target versions showed, discursive S-universals were manifested primarily by explicitation and simplification. Syntactically, the translators with analytical and mixed cognitive styles tended to explicate local syntactic ties between sentences by introducing conjunctions and discourse markers of local coherence into their target versions.

By contrast, translators with a synthetic cognitive style applied a strategy of simplifying the source syntactic structures while introducing simple sentences into the target text instead of using their composite source counterparts. Lexically, target texts of both groups showed higher indices of lexical variety, density and readability. Stylistically, those who pertained to the group with analytical cognitive style tended to avoid repetitions, and to delete pragmatic and discourse markers of 'global coherence' (Lenk 1998) in their target versions, whereas the overwhelming majority of their synthesis-oriented counterparts tended to reproduce these linguistic units in their target texts.

Conclusions

The analysis which integrated TAP-analysis, content-related and psycholinguistic techniques showed that the translator's brain does possess something like a 'switching' mechanism which enables him to apply either a 'gestalt' or a verbal-propositional approach to the encoding and decoding of source and target texts. This finding, along with others, undoubtedly contributes to our model of literary translation, providing a strong empirical base for comparing and contrasting the concepts of symbolism and connectionism, the dual coding mechanism and the laterality of the cerebral hemispheres in the discourse and thinking activity.

Our theoretical findings, supported by the empirical psycholinguistic study of the specific translation S-universals which include procedural and discursive regularities, made it possible to provide a scholarly description of both the translator's cognitive/ analytical resources and his synthetic ones. They involve intuition and associative thinking -- in other words, all those means which have been described in a convincing manner by mentalists and connectionists.

Obviously, the specific S-universals are of a dynamic nature, and can thus be viewed as being of greater value both for scholars and for translators. The empirical study of these universals provides an opportunity to identify translators' strategies which are the 'on-line' heuristic methods for deriving unique solutions to them. Basically, their probabilistic nature is rooted in the connectionist component of our psycholinguistic model.

The discursive S-universals, as the comparative analysis of the original and forty target texts showed, maintain the status of translators' common strategies depending on their cognitive style. By contrast, the procedural S-universals, as the TAP analysis of thirty-four protocols showed, were mostly influenced by the translators' dominant channel of the source text perception.

To sum up, the proposed psycholinguistic model can help to facilitate an understanding of the concept that translation should be viewed not merely as an algorithmic, rule-observing mental activity, but also as a heuristic, strategic and creative process. As the model incorporates both mentalist and connectionist components, it is able to provide an insight into the way in which a translator's memory can be trained through recurrent synapse activation, resulting in the strengthening of neuronal connections in the translator's cerebral network and the emergence of new ones. When translating texts of fiction, the interpreter should exercise great care, since any inaccurate choice may make it impossible for the reader of the target text to arrive at an aesthetic response comparable to that of the reader of the source text.

The study and classification of 'T-universals' is viewed as one which offers prospects for further research in the field of Translation Studies and Applied Psycholinguistics. Assembling bilingual electronic corpora of English and Ukrainian fiction also seems to be an undertaking which now holds great promise for the future, since such databases could contribute greatly to translation theory and practice by showing current and future translators and scholars a set of possible 'deforming tendencies' to be avoided in their mediating activity and research.

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