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HANDLING THE TEXT IN TRANSLATOR EDUCATION FROM THE PERSPECTIVE OF COGNITIVE TRANSLATOLOGY: A CASE STUDY

Abstract: *The aim of this paper is to report on the findings of a pilot case study that was done in order to shed more light on the application of cognitive linguistic approaches to translation studies and translation pedagogy. The study aims to identify the extent to which cognitive construal operations such as categorizing according to the prototype effects, and figure-ground reversal may be used in problem solving and decision making tasks related to meaning construction and translating the given texts. It is hypothesized that collaborative–based approach motivates students more to discuss and make use of the abovementioned cognitive construals when aiming at semantic precision in handling the texts. The results of the study indicate a decrease in errors related to word choice in the translated texts.*

Keywords: *translation, cognitive translatology, translator training, translating from Serbian into English*

Introduction

The main aim of this paper is to present the results of a pilot case study that was done in order to shed more light on cognitive linguistic approaches to translation studies, or cognitive translatology (Muñoz Martín, 2010: 145ff). The underlying motivation behind the study was the attempt to bridge the significant gap that exists in the theoretical and practical domains of cognitive translatology on the one hand and translator education on the other. As much as cognitive linguistic approaches to translation studies have been gaining ground recently (Malmkjær 2000, Risku 2010, 2013, Shreve and Angelone 2010, Shreve et al. 2010), this specific field of study is still in need of more empirical research in order to support some of the hypotheses argued for in theoretical accounts.

Cognitive approaches to translation have brought about a major shift not only in the object of study itself but in

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methodology as well. The radical change in the approach aimed at explaining the mind's hidden complexities as advocated by cognitive linguists (cf. Fauconnier and Turner 2002, Geeraerts and Cuyckens 2007) has resulted in turning the attention to the translator's mind and not only to the end result of the translation process. Hence, as Risku has it "the main goal of cognitive approaches to translation is to explain the development and workings of the mental processes that make complex cognitive behaviour like translation possible" (2013: 1). In that sense, some of the pertinent questions related to the understanding of translation in terms of cognitive approaches to this filed are closely related to the construction of meaning, identification of translation problems, problem solving and decision making tasks, and many more, including the applied research in the field of translation pedagogy and machine translation. In that context the understanding of cognition and the relevant aspects related to the process of translation are closely interrelated.

Translation studies (cf. Baker and Saldanha, 2009; Munday 2016) encompass different theories and approaches that aim at accounting for a formal description and application of translation, as well as the problems related to the process and product of translation. An overview of this field is beyond the scope of this paper (cf. Koller 1978, Venuti 1995, Nord 1997), however, as Tabakowska argues, the main problem that the translation studies have had to solve was the question of equivalence (1993: 2), or to use Snell-Hornby's term "the illusion of equivalence" (2006: 17ff). The concept of equivalence, as well as the peculiarities of a specific genre, divided the translation studies into two broad categories, those of literary and linguistic orientation. Without going into details regarding these two, it should be mentioned that this division as well as the given theoretical frameworks have had huge implications on the pedagogy of translation and translator training, in particular at university level. The development of this interdisciplinary approach will lead to the development of didactic methods that can support learning and teaching strategies related to increasing translation competences. The practical aspects of dealing with the process of rendering the equivalence at word level (in terms of Baker (1992: 10ff)) may be solved with the application of the findings of cognitive linguistics, which was the underlying idea behind this paper.

Translator Education

Translator education has undergone many changes in the last decades in order to cater for the needs of the job market and prospective employers in the sense that teachers rethink their approaches in order to develop specific competences of their students in order to prepare them better for the harsh reality of the job market and real-life translation business. Yet, much of the translator education is still "deeply embedded in the transmissionists tradition", as Kiraly (2000: 23) notes. That tradition implies a teacher-centred approach in which the key didactic method is filling in the gaps in students' knowledge and providing the final "correct" version of the translated text by the teacher. The teacher selects the texts, students do their assignments as part of their homework and in class they discuss possible correct versions of the translated text. Even though it is not easy to get reliable data from the prospective employers, Kiraly lists the following as the main competence gaps in translator education (2005: 1009):

a) narrow exposure to culture;
b) lack of practical training;
c) difficulty in working independently;
d) too theoretical approach of the university training.

Another problematic issue related to teaching translation courses is related to teaching L2 translation. As Pavlović highlights, in spite of the so-called "Golden Rule", which imposes translating only in one's first language (cf. Newmark 1988), translation into the second language (L2 translation) is a fact of life in settings involving languages of 'limited diffusion' (2010: 63). In the Serbian setting, the same situation applies: in practice the need exists for both combinations of languages, which results in extensive training in L2 translation at the university-level education in Serbia.

Additionally, in reference to L2 translation research and pedagogy, it has to be mentioned that the motivation for teaching such courses is in the first place related to increasing students' competences in the domain of translating, but also increasing their awareness of the interaction among languages as well as the contrastive and contact linguistic aspects of this interaction. This is even more pronounced in the multicultural and multilingual environment of the University of Novi Sad, in which more than

ten languages are spoken and officially used in public communication. Following Cook (2010), but other researchers as well (Koletnik 2015, Liao 2016), translation is on the one hand taught as a specific skill on its own, and on the other, it complements language courses, such as *Integrated Language Skills* in this specific case.

As much as the benefits of applying cognitive linguistics to the field of language pedagogy have been supported by a plethora of empirical studies (Boers and Lindstromberg, 2008, Juchem-Grundmann, 2010), it has to be mentioned that there are is not enough studies that explore the implementation of cognitive construlas (Croft and Cruse, 2004) in translation education. Few research was done in the domain of conceptual metaphors and the way they can be rendered in translation (Schäffner 2004, Maalej, 2008, Monti 2009, Izgarjan and Prodanović Stankić 2015), however, other construals and their reflections in translated texts have not been explored enough.

In this case, the focus of attention is on semantic precision achieved through finding the most appropriate equivalent at the word level, which turns out to be one of the most frequents errors students make while translating either from or into L1. At the same time, it seems that students do not have problems with semantic precision when trying to express their ideas in spoken or written form, especially since most of them are confident and fluent users of English as a Foreign Language (EFL). This problem becomes more noticeable when two languages are contrasted and when the students are exposed to more demanding tasks in the cognitive sense (for example, trying to control the interference of L1 while translating in or from L2).

In this study, the initial premise is based on the work of Risku (2002), specifically the 'situated cognition' perspective, that draws on a dynamic, situationally embedded view of mental processing, focusing on social, physical and emotional phenomena that are not limited by macro- and micro-strategies of the individual mind. (Risku 2002). In other words, as Kiraly (2005: 1102) argues, translation is always "undertaken within a particular physical and social setting and interactional framework, with the translator working together with other actors, and with cultural, technical, documentary and linguistic tools and resources to design and create a text, that is, to 'textualize' a new situation". In that way the translator is no

longer involved in mere transcoding of texts, but rather, while handling the text he/she is to translate, manages the whole communicative situation constructing the appropriate meaning of the source text (ST) and producing the equivalent function and meaning in the target text (TT).

Construal operations

In this paper it will be drawn on Cruse and Croft's taxonomy of linguistic construal operations as instances of general cognitive processes (2004: 46ff). In their list, Cruse and Croft list categorization (according to prototype effects), figure ground reversals and metaphor as subcategories of one of the main cognitive mechanisms: judgment and comparisons. As much as this cognitive mechanism represents a universal feature of human cognition, used in any instance of cognitive operation, when it comes to the instances of reflections of this mechanism on the linguistic level, it seems that translating is an activity in which it is clearly outlined. During the very process of translating, the translator constantly makes judgements and compares and contrast linguistic structures and cultural elements, as well as the effects and functions of the two texts, which has been proved by many studies based on Think Aloud Protocols (TAP) in the field of translation studies (Kussmaul, Tirkkonen-Condit 1995, Bernardini 2001, Pavlović 2009).

Leaving aside metaphor in this context, as a separate topic for research, the attention will be shifted here to categorization and figure ground relations. These operations turned out to be quite significant in the process of problem solving and decision making during the construction of meaning, both when it comes to constructing the meaning of the ST and rendering the appropriate meaning in the TT. If we start from one of the basic tenets of cognitive linguistic, which is the argument that we follow categorizing according to prototype effects while storing the new and old concepts and domains of experience in our minds (Lakoff 1987), then it is more than helpful to employ this principle while learning and memorizing new vocabulary in any language. In fact, this is an approach that is followed in most of the EFL teaching pedagogies, which can be noticed in many teaching materials. For example, language items are organized according to certain schemas and scenarios, lexical fields are taught following the prototype structure, collocations are defined

as the best and most frequent combination of two lexemes, etc. As much as these principles are observed by either acquiring or learning a language, this is not an approach that is widely employed while contrasting the languages in terms of translator education.

The same applies to using the principles of figure ground relation in teaching, in particular spatial relations in a language. This principle was first described in Gestalt psychology, and then later on applied in cognitive semantics and cognitive grammar (Talmy 2000). Basically, this principle is used to explain spatial relations such as location and motion by specifying the position of one object (the figure) in relation to another (the ground). For example: *The star* [figure] *is in the sky* [ground]. The implications of this principle are highly relevant in contrastive linguistic studies, as different languages may use different (or the same) linguistic structures to express this kind of relation. For example, using the abovementioned example, to illustrate the point, it should be stressed that in Serbian, there is a different conceptualization of the ground, which is 'the sky' (Serb. nebo in this case), conceptualized more like an open plain by the speakers of Serbian, hence, in Serbian the proposition 'on' is used to express the same spatial relation: Zvezda je na nebu. (The star is ON the sky). Thus, focusing on the differences in conceptualizations behind the linguistic realizations of these mental processes in the respective languages might be useful in enhancing students capacities for learning these differences in various aspects of language use, (for example, use of prepositions in English and Serbian), which is particularly relevant for translation.

Methodology

Setting
The case study was carried out in the academic year 2016-2017 at the University of Novi Sad, Faculty of Philosophy, Department of English Studies in the courses *Integrated Language Skills 3 and 4*. The total of 53 (N=53) second-year students participated in the study. Out of this number, there were 4 (N=4) students whose mother tongue was not Serbian, as was the case with the rest of the students (N=48), but Hungarian. Nevertheless, due to specific requirements related to the study

programme, all the students had to participate in the study. These four students have near-native fluency in Serbian, acquired after the primary and secondary school education in Serbian and by living and studying in this particular environment. *Integrated Language Skills* 3 and 4 are obligatory one semester courses that comprise four classes a week of practicing both receptive and productive language skills using an integrated communicative approach and one class of translation from Serbian (L1) into English (L2). These specific requirements are part of the accredited study programme. At the beginning of the course, the majority of students are at B2-C1 level of the *Common European Framework of Reference for Languages* (CEFR) and the overall aim is to reach C1-C2 level at the end of the academic year, in all respective skills. In addition to this, this is the first time the students do translation from L1 to L2, and they also have an additional translation course, translating from L2 to L1, which is taught separately.

Research aims

The following aims were outlined in reference to this research:

1. to examine the effects of using theoretical and practical aspects of cognitive operations in teaching translation at the level of language acquisition, specifically in aspects of contrastive and contact text analysis;

2. to determine the effects of using the collaborative task-based approach to handling the potential vocabulary-related problems in the process of translating texts from L2 to L1, in particular in terms of problem solving and decision making;

3. to suggest some theoretical implications for cognitive translatology and translator education.

Data collection

In order to collect the data for this research, a pilot case study was designed so as to incorporate the research aims and test the hypothesis. Both a quantitative and qualitative analysis was done. Quantitative analysis was based on analysing the results of two tests, using simple statistical methods and percentage share. Qualitative analysis was based on analysing students' perception by the means of analysing their responses on open- and close-ended questionnaire.

As it was already mentioned, the study was carried out during the courses *Integrated Language Skills 3 (ILS3)* and *4 (ILS4).* As these courses are obligatory and last one semester each, in the first semester, during *ILS*, the standard traditional approach to teaching translation was used. That implied focusing on introducing the basic concepts of translation theory, text analysis and dealing with (non)equivalence at lexical and grammatical level. While focusing on semantic precision and dealing with lexical equivalence of different kinds, vocabulary was discussed using standard second language acquisition methodology (cf. Carter et al. 1988, Coady and Huckin 1997). Most of the class and home translations were done individually. The course was followed by Test 1 in which students had to translate the given excerpt (180 words) from the text "Bicikl" ("The Bicycle") by David Albahari from Serbian into English. The particular text was quite similar to the texts that were assigned to be translated either in class or at home, and it contained the typical translation problems that were discussed and dealt with during class activities. Test 1 was designed as a control test in this study.

In the summer semester, during the course *ILS 4*, a different procedure was followed in teaching. First of all, in the sense of contrasting lexical structures and vocabulary expansion, a cognitive approach was adopted. That implied introducing the students with basic tenets of cognitive linguistics and adopting the cognitive perspective while doing text analysis and comparing and contrasting lexical structures. Also, students were encouraged to work in pairs, as it was corroborated by some studies (cf. Kiraly 2005, Pavlović 2010) that collaborative educational experience had a positive impact on both the learning and translation process. At the end of semester students had to evaluate the approach by filling in a given questionnaire. The great majority of them found the collaborative approach to translating to some extent challenging, as they were not used to discussing different options and finding solutions together with their colleagues. However, once they overcame the initial resistance, they claimed that this approach was beneficial as it empowered them and enabled them to assess their own way of thinking in a different way. Also, discussing text-related problems with their colleagues allowed them to invest much more time in the whole process.

At the end of the semester, Test 2 was done under the same conditions as Test 1: the students had 90 minutes to translate the text; they had mono- and bilingual dictionaries at their disposal, as well as dictionaries of synonyms, collocations and idioms. Test 2 was another excerpt (183 words) from the same short story "Bicycle" written by David Albahari.

Both tests were marked using the same marking scale. In accordance with the objectives of this study, only the errors students made related to vocabulary use were recorded, and they could get either -0.5 or -1 point out of the maximum of 100 points for each vocabulary related error. In this context that implied either problems with comprehension of the ST, which was reflected in using a completely inappropriate word in the TT (-1), leaving a blank space, or a wrong lexical unit as a whole (e.g. collocation/phrase/idiom), a word that was typical of an inappropriate register (-0.5) (e.g. too informal or too formal for the given context), or a word that is semantically imprecise (-0.5) (e.g. using hyperonym for a hyponym), or misspelt (-0.5). In addition to these typically vocabulary-related errors, errors related to the wrong use of articles or word form of a noun were also penalized, as well as the wrong use of prepositions. The reason for this lies in the fact that this specific type of knowledge is closely related to construction of meaning and comprehension of the ST as well as the ability to contrast structures in Serbian and English.

The Results of the Study and Discussion

The results of the study indicate that in general, students achieved a higher level of attainment in the Test 2. The arithmetic mean of their score is 78.5 for Test 1 and 83.07 for Test 2.

	Mean value
Test 1	78.5
Test 2	83.07

Table 1 - The arithmetic mean of the results of both tests

The breakdown of these values indicates that in general, students have improved their language use in reference to word

choice. As much as this can be attributed, at least to some extent, to the fact that they have reached the end of the academic year and in general, they have been exposed to more language input and have been practising their language skills in other courses as well, it is still noticeable that guided practice has resulted in their better control over transfer and interference from one to the other language while translating. According to the comments students gave in the questionnaire, discussing with their colleagues possible problems and comparing different associative and connotative meanings evoked by a given lexeme or lexical unit directed them into being more motivated to find more appropriate solutions. This control over the whole process is mostly evident in their greater awareness of salient and associative meaning of certain lexemes which they have used purposefully in the given context to achieve higher degrees of equivalence. In Table 2 given below, the share of specific errors is given (in percentages) for each test, so that a comparison can be made as regards to students' level of attainment.

	WC	Register	Articles	Prep.
Test 1	31.1	8.4	21.5	14.5
Test 2	24.7	9.1	19.8	10.3

Table 2 –Distribution of errors in Test 1 and Test 2

As it can be seen in the table, the students that took part in the study had most difficulties with finding the most appropriate equivalent at the word level. Even though they had dictionaries at their disposal, and the source text did not contain any specific lexeme(s) that might be above their level, the students were mostly challenged by the use of the given lexeme or lexical unit in the relevant context. The second test showed that they made some progress in that respect, which can be attributed to several variables. In the first place, the change in the perspective applied to teaching and learning vocabulary allowed them to view and contemplate the question of equivalence in a different way and made them more aware of the specific similarities and differences between these two languages on the lexical level. For example, it turned out that when they could not find a specific lexical equivalent, they resorted to finding other ways, for example using grammatical structures or word formation to solve the given problem. It is interesting also that in terms of

register-based errors, students were quite consistent in making these errors. It could be noticed on tests but also during class work, that many students were actually focused most on finding the words with a specific meaning devoid of both the source text and target text context. This became even more prominent in situations in which they had to translate semi-formal, neutral or formal register, because it seems that in the second year of their studies, they still lack more formal vocabulary.

Similarly, when it comes to the intersection of meaning of the given lexical item and the structure of noun phrase in English, around one third of students had problems with using articles, in particular the indefinite article with countable nouns. Along the same lines, they struggled with word forms in many instances when they made errors with word choice. For example, typically, they would use a countable noun in singular form with a zero article, which was interference from the source text.

Furthermore, as regards the use of prepositions, in particular when it comes to fixed collocations or metaphorical uses of prepositions, the results of the study indicate that a change in the theoretical approach towards a cognitive one had a positive impact on the students' level of attainment in the test. This was mostly evident in chunks of text in which there was a distinctive difference in the use of prepositions between L1 and L2. In these instances, students typically made errors lead by the transfer from their mother tongue. This finding has been supported by some previous research into transfer from L1 to L2 in the field of second language acquisition (SLA). For instance, Towel and Hawkins (1984), or Ellis (1985) argue that transfer of L1 patterns to L2 affects all linguistic levels, in particular in situations in which the learner has to use the gained knowledge in a new context. In that sense, raising students' awareness of the existence of different collocation patterns in these two languages made them more aware to revise their knowledge related to the separate language systems or to check and find the right information in the dictionary.

Students' perception of the collaborative task approach was quite positive. They found the theoretical input rather relevant, if not a bit too theoretical. They found some tasks too demanding in that context, especially the ones that focused on developing certain lexical fields and they disliked looking up in

the dictionary and finding the distinctive semantic features of the given lexeme.

As regards the collaborative task-based approach, the majority of students found it beneficial and insightful as it helped them share their dilemmas and doubts that they found in reference to all stages of the translation process, in particular, meaning construction, detecting possible problems and discussing pros and cons of applying a specific translation strategy while translating the text. Overall, the students found the whole approach quite useful but challenging at the same time, as it required quite a lot of work on their side.

Concluding remarks

Apart from providing a systematic theoretical approach to address the most important issues in translation studies, cognitive linguistics can help in shedding more light on some specific problems. This was the main underlying idea behind this study. Understanding conceptual structure and being aware of the cognitive operations that are reflected in linguistic expressions can enable translators with better insight while trying to achieve greater equivalence in their translations. This is even more evident in case of novice translators or the students majoring in translation, as they tend to show signs of transfer and interference of one language into the other in their translated texts. Having in mind the fact that translation studies have long been a heterogeneous discipline, it is clear that cognitive approaches to it can help illuminate some pertinent issues related to different aspects of the whole process. Much needed empirical studies in this field can help in providing a deeper insight into these issues.

Since this case study was preliminary, the aim was to focus only on two cognitive construals and examine the effects which could be obtained by training the students to rethink their learning strategies related to vocabulary use in translating from L1 to L2. It goes without saying that the very process of translating into a language that is not the translators' native language is cognitively demanding per se, especially for students who have not yet reached near-native fluency in the foreign language. However, for that very reason, the attempt to relate the linguistic units with some universal cognitive mechanism should help in providing the translator with specific tools that can affect

the process of comparing and contrasting specific linguistic structures of the source and target language.

The results of this study indicate that this was indeed helpful in case of using more appropriate words in the semantic and pragmatic sense in the given context, as well as in using the right preposition in collocations. Regarding the use of words marked for a specific register or using articles, it must be mentioned that there were no significant differences that were recorded in the control and experimental test.

Nevertheless, it is quite certain that cognitive translatology represents an area of study that has the potential to broaden and deepen the scope of translation studies and offer a new perspective and framework, which indeed can offer a better insight into the way translation as a skill is learned and done.

References

Baker, Mona. *In other words: A coursebook on translation*. London and New York: Routledge, 1992.

Baker, Mona, and Gabriela Saldanha, eds. *Routledge encyclopedia of translation studies*. London and New York: Routledge, 2009.

Bernardini, Silvia. "Think-aloud protocols in translation research: Achievements, limits, future prospects." *Target. International Journal of Translation Studies* 13.2 (2001): 241-263.

Boers, Frank, and Seth Lindstromberg, eds. *Cognitive linguistic approaches to teaching vocabulary and phraseology*. Berlin: Walter de Gruyter, 2008.

Carter, Ronald, et al. *Vocabulary and language teaching*. London: Longman, 1988.

Coady, James, and Thomas Huckin. *Second language vocabulary acquisition: A rationale for pedagogy*. Cambridge: Cambridge University Press, 1997.

Cook, Guy. *Translation in Language Teaching: An Argument for Reassessment.* Oxford: Oxford University Press. 2010.

Croft, William, and D. Alan Cruse. *Cognitive linguistics*. Cambridge: Cambridge University Press, 2004.

Ellis, Rod. *Understanding second language acquisition*. Oxford: Oxford University Press, 1985.

Fauconnier, Gilles, and Mark Turner. The Way We Think. New York: Basic Books, 2002.

Geeraerts, Dirk, and Hubert Cuyckens, eds. *The Oxford handbook of Cognitive Linguistics*. Oxford: Oxford University Press, 2007.

González Davies, Maria. *Multiple Voices in the Translation Classroom*. Amsterdam: John Benjamins. 2004.

Göpferich, Susanne. *Translationsprozessforschung. Stand – Methoden – Perspektiven*. Tübingen: Narr., 2008.

Izgrajan, Aleksandra, and Diana Prodanović Stankić. *Approaches to Metaphor: Cognitive, Translation and Literature Studies Perspective*. Novi Sad: Filozofski fakultet, 2015.

Koller, Werner. "Äquivalenz in kontrastiver Linguistik und Übersetzungswissenschaft." *Theory and Practice of Translation* (1978): 69-92.

Koletnik, Melita. "Expanding vocabulary through translation–An eclectic approach." *Scripta Manent* 7.1 (2015): 2-12.

Kiraly, Don. *A Social Constructivist Approach to Translator Education*. Manchester: St Jerome Publishing. 2000.

Kiraly, Don. "Project-Based Learning: A Case for Situated Translation." *Meta* 50.4 (2005): 1098–1111.

Kussmaul, Paul, and Sonja Tirkkonen-Condit. "Think-aloud protocol analysis in translation studies." *TTR: traduction, terminologie, rédaction* 8.1 (1995): 177-199.

Lakoff, George. *Women, fire, and dangerous things*. Chicago: University of Chicago Press, 1987.

Liao, Posen. "EFL Learners' Beliefs about and Strategy Use of Translation in English Learning". *RELC Journal* 37. 2 (2016): 191–215.

Littlemore, Jeannette, and Constanze Juchem-Grundmann. "Introduction to the interplay between cognitive linguistics and second language learning and teaching." *AILA Review* 23.1 (2010): 1-6.

Maalej, Zouhair. "Translating metaphor between unrelated cultures: A cognitive-pragmatic perspective." *Sayyab translation journal* 1 (2008): 60-81.

Malmkjær, Kirsten. "Language learning and translation." *Handbook of Translation Studies* (2010): 185-190.

Monti, Enrico. "Translating the Metaphors We Live By: Intercultural Negotiations in Conceptual Metaphors." *European Journal of English Studies*13.2 (2009): 207-221.

Munday, Jeremy. *Introducing translation studies: Theories and applications*. London and New York: Routledge, 2016.

Muñoz Martín, Ricardo. "Leave no stone unturned: on the development of cognitive translatology." *Translation & Interpreting Studies* 5.2 (2010): 145-162.

Newmark, Peter. *A textbook of translation*. New York: Prentice Hall. 1988.

Nord, Christiane. *A Functional Typology of Translations*. Amsterdam: John Benjamins, 1997.

Pavlovic, Natasa. "More ways to explore the translating mind: Collaborative translation protocols." *Behind the mind: methods, models and results in translation process research. Copenhagen: Forlaget Samfundslitteratur*(2009): 81-105.

Pavlović, Nataša. "What were they thinking?! Students' decision making in L1 and L2 translation processes." *Hermes* 44 (2010): 63-87.

Risku, Hanna. "Situatedness in Translation Studies." *Cognitive Systems Research* 3, (2002): 523-533.

Schäffner, Christiane. "Metaphor and translation: some implications of a cognitive approach." *Journal of Pragmatics* 36.7 (2004): 1253-1269.

Shreve, Gregory M., and Erik Angelone, eds. *Translation and cognition*. Amsterdam: John Benjamins Publishing, 2010

Shreve, Gregory M., Isabel Lacruz, and Erik Angelone. "Cognitive effort, syntactic disruption, and visual interference in a sight translation task." *Shreve, GM & E. Angelone (eds.)* (2010): 63-84.

Snell-Hornby, Mary. *The Turns of Translation Studies: New paradigms or shifting   viewpoints?* Amsterdam: John Benjamins Publishing, 2006.

Tabakowska, Elżbieta. *Cognitive linguistics and poetics of translation*. Tübingen: Narr, 1993.

Talmy, Leonard. *Toward a cognitive semantics*. Cambridge, Mass.: MIT Press, 2000.

Towell, Richard, and Roger D. Hawkins. *Approaches to second language acquisition*. Cleveland: Multilingual Matters, 1994.

Venuti, Lawrence. *The Translator's Invisibility: A history of translation*. London and New York: Routledge, 2008.