

Sight-Translation Strategies and Quality. Part 2. The Impact of Directionality

Стратегії перекладача в усному перекладі з аркуша та його якість. Частина 2. Вплив напрямку перекладу

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Original manuscript received June 05, 2024
Revised manuscript accepted March 17, 2025

ABSTRACT

Aim. The aim of this second part of the psycholinguistic research in the language pair Slovak-English is to determine the influence of directionality on the generation of the target text (TT) and its delivery by comparing the sight translation (SiT) of student interpreters from their native language (NL) into a foreign language (FL) and vice versa.

Procedure. The participants, seven Slovak university graduates, sight-translated a non-specialised 272-word text from FL (English) into NL (Slovak). Their TTs were then compared with the TTs of the same students in the first series of the study where they translated a non-specialised 250-word text from NL (Slovak) into FL (English). The comparison was based on the following parameters: the rate of TT delivery, the degree of retention of ST information in the TT (based on the comparative proportions of omissions and major errors), the quality of TT delivery (as measured by the relative percentage of unmotivated pauses), and the respective ratio of surface-oriented (SurfOS) and sense-oriented (SensOS) translation strategies in the two directions of SiT.

Results. Delivery in the FL–NL SiT was 1.5 times faster than in the NL–FL direction. The FL–NL SiT is characterised by a better retention of ST information. The proportion of omissions in the FL–NL SiT is 1.7 times lower and the number of major errors 7 times lower than in the NL–FL direction, which allows for a higher lexical accuracy of the TT in the FL–NL SiT. In the FL–NL direction, the correlation between the surface-oriented (SurfOS) and the sense-oriented (SensOS) translation strategies is more flexible and less dependent on the ST structure. For the same reason, the quality of TT delivery in the FL–NL direction is better, which is reflected in fewer long hesitations and TT repairs.

Conclusion. Directionality is a factor influencing SiT efficiency. The conclusion about the dominance of the SurfOS strategy in FL–NL SiT should not be taken literally. SiT is not a mechanical substitution of target language equivalents for ST words, but a process of intensive intellectual activity related to ST processing and TT synthesis.

Key words: directionality, English-Slovak sight translation, intellectual activity, sense-oriented strategy, source-text processing, surface-oriented strategy, target-text synthesis.

Introduction

In the first part of our study (Chernovaty, Djovčoš & Kovalchuk, 2023) we investigated the influence of the source text (ST) syntactic structure in the native language (Slovak) on the strategies of its sight translation (SiT) into a foreign language (English) and the quality of the target text (TT). It was found that the anticipation mechanisms and the copying of the ST syntactic structures into the TT were facilitated by the syntactic similarity of the two languages. However, the surface-oriented strategy (SurfOS) did not turn out the dominant one in the arsenal of translation of student translators' techniques. Most participants transformed the ST structure when generating the TT if it was obviously unacceptable for copying.

Novice translators' anticipation and information processing mechanisms were found to be negatively affected by the complicated ST syntactic structure. This resulted in an increased load on short-term memory, as the ST content needed to be retained before it got transformed into the TT. The ability to control the production of the TT was further limited by the effort required to perform these transformations. This led to unmotivated pauses, repetitions, omissions, distorted ST content and the inability to simultaneously control the transformation of the ST structure, preserve its meaning and conform to target language norms.

Thus, it was found that the syntactic complexity of the ST has a negative effect on the efficiency of SiT in interpreting from the native (NL) into foreign language (FL). The results of this research confirmed the authors' assumption that the lack of information processing skills necessary to cope with the syntactic differences between the ST and the TT is one of the main problems of interpreters in SiT.

In the second stage of the study, we focused on the impact of the directionality of translation on its strategies and on the quality of the TT. The results of the analysis of the available research on this issue are presented below.

Background

Directionality is considered to be one of the most contradictory issues in translation/interpreting research and translator/interpreter training, and is believed to lack a solid empirical basis (Whyatt, 2019).

Two studies (Yang, Gao & Zhang, 2023; Gao, Yang & Zhang, 2024) on the effects of directionality on SiT disfluency between NL (Chinese) and FL (English) showed that the incidence of silent pauses was highest in both directions, followed by filled pauses, repetitions and repairs. However, the longest pauses (over 10 seconds) occurred only in interpreting from the FL into NL. The authors found no statistically significant differences between NL–FL and FL–NL in SiT in terms of the four disfluency indicators mentioned above. Based on these findings, the authors concluded that directionality does not have a significant effect on SiT disfluency.

Directionality was also found to have no effect on the predictive validity of SiT for interpreting performance in either consecutive or simultaneous mode, at least for the English-Chinese language pair (Shang & Xie, 2023).

Another study (Chang & Chen, 2023), using the eye-tracking research method and a language and translation questionnaire, confirmed the existence of 'translation asymmetry' suggested by the inhibitory control model (Green & Abutalebi, 2013), i.e. the effect of directionality on cognitive load in NL and FL translations by novice translators. Based on the collected data, the machine learning algorithm developed a model that reliably predicted translation directions. The authors see it as proof that machine learning-based approaches can be applied to Cognitive Translation and Interpreting Studies.

The research (Pokorn et al., 2019) on the comparative impact of different factors (directionality, language proficiency, thematic and information mining competences) on the quality of translation output in a translator training environment with the participation of 14 student translators in their final year of study at MA level, attempted to find out whether semantic and stylistic translation errors are mainly the result of translation directionality. The analysis, using an adapted version of an item-based evaluation method, of 112 translations of source texts from general (familiar topic) and specialised (unfamiliar topic) domains showed that the level of the FL proficiency and the breadth of the students' general knowledge have a more decisive impact on translation quality than directionality.

Some authors (Whyatt, 2019) believe that to understand the impact of directionality on both the translation process and its final product, it needs to be considered in a specific setting where other factors are taken

into account. The research (Whyatt, 2019) showed that for professional translators, working from their NL to FL or vice versa did not have a significant impact on translation time, and in both cases their target texts required improvement by proof-readers. The results suggest the need for a more detailed analysis of directionality effects to see whether they are language pair specific or whether they can also occur in other language combinations. The characteristics of the high-quality NL–FL target texts suggest that they depend more on the type of source text than on directionality.

However, other authors are less categorical. An eye-tracking study (Pavlović & Jensen, 2009) with students and professionals found that processing the TT required more cognitive effort than processing the ST, regardless of direction. However, the experimental data only partially confirmed that solving the FL translation tasks and processing the ST in the NL translation require more cognitive effort than in the opposite direction. Similarly, the assumption that the cognitive effort required to process the TT is higher in the FL translation than in the NL translation was not fully confirmed.

The analysis (Chou, Liu & Zhao, 2021) of four critical aspects of trainee interpreters' TTs (speaking rate, preservation of the ST information, TT delivery and linguistic accuracy) in the Chinese-English pair showed the FL–NL advantage in delivery and accuracy, but not in the preservation of ST information. The NL–FL direction was also found to be more cognitively demanding and FL proficiency was revealed as an important factor. Thus, in this study, the effect of directionality was found to depend primarily on the ST characteristics and individual factors (which can be assumed to include subject knowledge, language proficiency, stress resistance, etc.).

Based on the revised hierarchical model of bilingual language processing, some authors (Kroll & Stewart, 1994) predict that the FL–NL direction should be faster than the NL–FL direction. This assumption seems logical, but it has been disproved in some studies (Sholl, Sankaranarayanan & Kroll, 1995), so further research is needed. The same model also suggests that directionality may be an important factor in lexical accuracy of translation because of the weaker links between the FL words and the common conceptual nodes shared by the two languages (Christoffels, Groot & Kroll, 2006). Other factors may

include FL competence, translation expertise, and the subject matter complexity of the ST (García, 2015).

Thus, the impact of directionality on translation quality and its other characteristics is currently a controversial issue and requires further research. Below we present the results of our attempt to investigate this problem.

The Study

The aim of the study is to determine the influence of directionality on the quality of TT and its delivery. While in the first series of this research the participants sight-translated from their NL (Slovak) into FL (English), in the second series they did so in the opposite direction, i.e. from FL (English) into their NL (Slovak). We wanted to compare the characteristics of the participants' TTs, their translation strategies and the problems they experienced when sight-translating from FL to NL (series 1) and from NL to FL (series 2) in order to see the effect, if any, of directionality.

The research was carried out on the basis of the following **hypothesis**.

Directionality is a factor in sight translation. Due to the participants' higher proficiency in the NL compared to the FL, the FL–NL direction of SiT will be faster than the NL–FL direction. The better command of the target language in the FL–NL direction will give the participants more time to process the ST and thus retain more of the ST information in the TT. The formal indicators of this retention will be fewer omissions and major (information) errors in the participants' TTs. Due to the weaker links between the FL words and the common conceptual nodes presumably shared by the two languages, the FL–NL direction will be characterised by higher lexical accuracy, i.e. there will be fewer lexical errors in the participants' TTs compared to the NL–FL direction. In the FL–NL direction, the correlation between the surface-oriented (SurfOS) and the sense-oriented (SensOS) translation strategies will be more flexible and less dependent on the ST structure due to the greater range of choices available to the participants in the target language. For the same reason, the quality of TT delivery in the FL–NL direction will be better, which will be reflected in fewer long hesitations (over two seconds) and TT repairs.

Participants

The participants (P) were the same students as in the first series of the experiment (Chernovaty, Djovčoš & Kovalchuk, 2023): six MA student interpreters from the Matej Bel University (UMB) in Banská Bystrica (Slovakia), aged 22–23 (one male and five female), and one 38-year-old female MA student in English and Engineering (P5). They all had Slovak as their NL and English as their FL, and were also studying another European language (German or French). The participants placed their command of the NL at levels C1 (29%) to C2 (71%) and that of the FL at levels B2 (29%) and C1 (71%). The participants' experience of interpreting, which ranged from 26 to 156 contact hours, was limited to consecutive and simultaneous modes, mostly in the classroom (with the exception of P2 and P5, who did it regularly at work). None of the participants had any significant experience in SiT, except P5 who had a unique practice of sight translating a book for 2.5 years in weekly sessions of 30-40 minutes each. For more details about the participants, see the corresponding information in the description of the first series of our experiment (Chernovaty, Djovčoš & Kovalchuk, 2023).

The Procedure

The Source Text

To study the impact of directionality on the participants' translation strategies, the quality of their TTs and the delivery, we chose a ST in English of approximately the same size as the ST in Slovak in the first series (272 words against 250 words in series 1). To avoid the hypothetical influence of the ST's conceptual complexity on the quality of its interpreting (García, 2015), we chose a text with a similar theme to that used in series 1 – wild animals in the city (City invaders). To facilitate the analysis of the participants' TTs, we used the same method as in the first series, dividing the ST into arbitrary fragments, the number of which (35) was the same in both series. As in the first series, we rendered each of these fragments literally into the target language (Slovak) and thus predicted the possible TT generated by copying the syntactic structure of the ST, i.e. using a strategy focused on the surface structure (surface-oriented strategy – SurfOS) of the corresponding fragment of the ST. The results of this prediction are shown in Table 1.

Table 1

The Source Text and the Predicted Literal Target Text Version

Fragment	Source text	Predicted literal translation version
1A	A mountain lion was spotted last summer	Puma bola zbadaná minulé leto
1B	walking down a sidewalk in San Francisco.	kráčajúc po chodníku v San Franciscu.
2	2. Small mammals like squirrels, mice, rats, skunks and possums have always lived in cities.	Malé cicavce ako veveričky, myši, potkany, skunky a vačice vždy žili v mestách.
3	Most are nocturnal	Väčšina (z nich je/sú) nočná (nočných)
4A	They spend their days sleeping in bushes, basements or sewers	Trávia dni spaním v kríkoch, pivniciach alebo kanáloch.
4B	and then come out to hunt or scavenge for their meals at night	a potom vychádzajú loviť alebo hľadať potravu v noci.
5A	What is new is that	Čo je nové (novinkou), je to, že
5B	larger animals that once lived only in the wilderness	väčšie zvieratá, ktoré kedysi žili len v divočine
5C	are coming into towns and cities in growing numbers	prichádzajú do miest a veľkomiest v čoraz väčšom počte
6A	Deer move to cities to eat shrubs, graze lawns and gardens	Jelene sa sťahujú do miest, aby požírali kríky, spásali trávniky a záhrady
6B	because wilderness lands have shrunk	pretože divoká pôda (divočina) sa zmenšila
7A	They also come because it is safer	Prichádzajú aj preto, že to je bezpečnejšie
7B	as mountain lions – their main predator	lebo pumy – ich hlavný predátor –
7C	do not dare to enter cities.	sa neodvažujú vstúpiť do miest.
8	This is not good.	To nie je dobré.
9	Deer kill and injure more Americans than any other animal	Jelene zabíjajú a zraňujú viac Američanov ako ktoréhokoľvek iné zviera
10A	Not with their antlers,	Nie s ich parohmi,
10B	but by dashing in front of cars and causing accidents.	ale vtrhnutím pred autá a spôsobením dopravných nehôd.
11A.	Mountain lions, also known as cougars or pumas,	Horské levy, tiež známe ako kougary alebo pumy
11B	like deer the way you like ice cream.	majú radi jelene spôsobom, akým vy máte radi zmrzlinu.
12A	But they fear people,	Ale oni sa boja ľudí
12B	so they follow deer into cities	takže idú za jeleňmi do miest

12C	only when they are really hungry.	len vtedz, keď sú naozaj hladní.
13A	Red foxes have little fear	Červené líšky majú malý strach
13B	and are now more concentrated in cities than in the wild	a sú v súčasnosti viac koncentrované v mestách ako aj v prírode
14	And bears routinely visit towns to raid dumpsters and garbage cans	A medvede bežne navštevujú mestá, aby prepadávali smetné koše a odpadkové koše.
15A	A mountain lion once tried to enter a hotel in Reno, Nevada,	Horsky lev sa raz pokúsil dostať do hotela v meste Reno v Nevade,
15B	and another has lived in park in Los Angeles for nearly five years.	a ďalší žije v parku v Los Angeles už takmer päť rokov.
16A	Black bears have hibernated under houses in New Jersey suburbs	Čierne medvede prezimovali pod domami v New Jersey na predmestiach
16B	and broken into cabins and cars in many mountain towns.	a vlámali sa do chát a áut v mnohých horských mestách.
17A	Even wild animals that seem shy and harmless	Dokonca aj divoké zvieratá, ktoré sa zdajú byť plaché a neškodné,
17B	can bite or hurt you	môžu uhryznúť alebo zraniť vás
17C	if you get too close	ak sa priblížite príliš blízko
18A	Setting out food is also a bad idea	Rozloženie vonku jedla je tiež zlý nápad
18B	because they'll expect more and keep coming back	pretože budú očakávať viac a budú sa stále vracat'

The Delivery

Participants were asked to sight translate the ST. Their performance was recorded, transcribed and analysed. Preservation of ST word order in TT was taken as an indicator of a surface-oriented strategy (SurfOS), whereas transformations of ST structure were taken as evidence of a sense-oriented strategy (SensOS). The correlation between SurfOS and SensOS in the reproduction of 35 ST fragments, as well as other features of participants' performance, is discussed below. The examples retain the participants' original formulations, irrespective of their compliance with the standard norms of the target language (Slovak).

Results and Discussion

The overall results are summarised in Table 2.

Let's look at the dynamics of changes in the two series of the experiment by individual parameters.

Table 2

Overall Results. P – Participant, Avg – Group Average; Speed – ST Processing Speed; w/min – Words Per Minute; SurfOS % – Percentage of the Surface-Oriented Strategy; SensOS % – Percentage of the Sense-Oriented Strategy; Mixed % – Percentage of the Mixed Strategy

P	Rate (w/min)	SurfOS (%)	Mixed (%)	SensOS (%)	Fragment omissions (number)	Word omissions (number)	Major errors (number)	Long pauses (number)
1	89.3	44	35	21	1	2	1	7
2	68.9	21	55	24	2	16	11	17
3	57.3	42	36	22	2	6	3	28
4	63.3	49	36	15	2	11	8	19
5	89.0	83	14	3	0	2	0	7
6	77.7	54	31	15	0	6	0	20
7	78.3	70	17	13	5	8	0	44
Avg	74.8	52	32	16	1,7	7,3	3,3	20.3

Target Text Delivery Rate

Table 3 shows the dynamics of changes in the TT delivery speed.

Table 3

Comparative Rate of the TT Delivery (in Words Per Minute) in Series 1 (NL-FL Direction) and Series 2 (FL-NL Direction). P – Participant, Avg – Group Average

P	Series 1	Series 2	Absolute increase	Relative increase (times)	Relative increase (%)
1	56.4	89.3	32.9	1.6	60
2	56.4	68.9	12.5	1.2	20
3	44.1	57.3	13.2	1.3	30
4	43.3	63.3	20.0	1.5	50
5	53.2	89.0	35.8	1.7	70
6	50.8	77.7	26.9	1.5	50
7	42.2	78.3	36.1	1.9	90
Avg	50.0	74.8	25.3	1.5	53

As Table 3 shows, the total absolute word-per-minute (wpm) rate in series 2 increased by 25.3 words per minute (almost 75 wpm), i.e. 1.5 times, compared to series 1 (50 wpm). This increase was observed for all participants without exception. The highest increase was recorded

for P7 (36.1 wpm, an increase of 90%). This was followed by P5 (35.8 w/min, 70%), P1 (32.9 w/min, 60%), P6 (26.9 w/min, 50%), P4 (20 w/min, 50%), P3 (13.2 w/min, 30%) and P2 (12.5 w/min, 20%).

Despite the individual differences in the degree of increase, the hierarchy of participants in the two series of the experiment changed little. In both the first and second series, the first block (ranks 1–4) includes participants P1 (first place in both series), P5 (third place in the first series and second place in the second series) and P6 (fourth place in both series). Similarly, the second block (ranks 5–7) includes participants P3 (fifth in the first series and seventh in the second) and P4 (sixth in both series). The only exceptions in the comparative aspect of these hierarchies are P2's move from second place in series 1 to fifth place in series 2 and P7's move from last place in series 1 to third place in series 2. In the case of P2, this can be explained by the fact that in series 1 she translated only 60% of the ST, but the number of unmotivated pauses was below the group average (see below), giving a false positive impression of her overall translation rate. As for P7, her last place in Hierarchy 1 is explained by the number of unmotivated pauses, which is more than double the group average (see below).

Another difference between the multidirectional sight translations is the dispersion of the delivery rate. Whereas in the first series the difference between the highest (56.4 w/min in P1 and P2) and the lowest (42.2 w/min in P7) rate in the group was 14.2 w/min, in the second series this difference is 2.3 times greater, amounting to 32 w/min (the highest value is observed in P1 – 89.3 w/min and the lowest, 57.3 w/min, in P3). This may be due to the different degrees of complexity in processing the source text and transforming it into the target text in different directions. For example, when translating from a foreign language (FL–NL), P3, who had the lowest rate in the second series, also had the second highest number of unmotivated pauses, indicating difficulties in TT generation.

Thus, given that all participants significantly improved their translation rate in the second series, it seems reasonable to conclude that the direction of translation affects the translation rate, in particular that the rate is higher when translating into the native language for the reasons stated in the research hypothesis.

Translation Strategies

General data on the correlation between translation strategies in the two series of the experiment are presented in Table 4.

Table 4

Comparative Correlation of Translation Strategies in the Two Series of the Experiment. P – Participant, Avg – Group Average; SurfOS (%) – Share of The Surface-Oriented Strategy (%); SensOS (%) – Share of the Sense-Oriented Strategy; Mixed (%) – Share of the Mixed Strategy; 1 (Experimental Series 1); 2 (Experimental Series 2)

P	SurfOS (%) – 1	SurfOS (%) – 2	Mixed (%) – 1	Mixed (%) – 2	SensOS (%) – 1	SensOS (%) – 2
1	26	44	9	35	65	21
2	17	21	40	55	43	24
3	23	42	17	36	60	22
4	23	49	11	36	66	15
5	23	83	3	14	74	3
6	14	54	20	31	66	15
7	23	70	11	17	66	13
Avg	21	52	16	32	63	16

Surface-Oriented Strategy (SurfOS)

As can be seen in Table 4, the proportion of SurfOS (52%) in the FL–NL direction (series 2) is almost 2.5 times higher than the corresponding proportion (21%) in the opposite direction (series 1). This advantage is reflected both in the maximum and minimum values (26% in P1 and 14% in P6 for the NL–FL translation and 83% in P75 against 21% in P2 for the FL–NL translation) and in the dispersion of the values in each series (the difference between the maximum and minimum values in the first series is 12% and in the second – 52%). The proportion of SurfOS increased for all participants. The largest increase was observed in P5 (60%), followed by P7 (47%), P6 (40%), P4 (26%), P3 (19%), P1 (18%) and P2 (4%). The results of P2 fall outside the general range, which can be explained by certain peculiarities of her SiT performance in general (see below).

Such significant differences in multidirectional translations are a clear reflection of a general trend that can be explained by the fact that Slovak (compared to English) is less restrictive in terms of word

order in a sentence, which allows for freer manoeuvring within the sentence structure of the original text, and by the much better command of their native language by all participants.

A good example can be sentence 5 consisting of three fragments. In translating fragment 5A (*What is new is that* with the predicted SurfOS version *Čo je nové (novinkou), je to, že*) most participants copied the original sentence structure (SurfOS = 86%) (P7: *Čo je... nové je to*) with occasional additions of conjunctive adverbs (P1 – *Čo je **však** novinkou je to, že*; P3 – *Čo je **však** novinkou je že*; P4 – ***Ale** čo sa **stalo** novinkou je, že*; P5 – *Čo je **však** nové, je že*; P6 – *Čo je **však** novinka je, že*). P2 failed to render this phrase as she got lost in her transformations: *Čo je teda o nich... taktiež pre nich... také známe je*.

In rendering fragment 5B (*larger animals that once lived only in the wilderness* with the predicted SurfOS version *väčšie zvieratá, ktoré kedysi žili len v divočine*), almost all participants' outputs coincided with the prediction (SurfOS = 86%): P1 – *väčšie zvieratá, ktoré niekedy žili len v divočine*; P3 – *väčšie zvieratá, ktoré kedysi žili ... v divočine*; P4 – *väčšie zvieratá, ktoré predtým žili iba v divočine*; P5 – *väčšie zvieratá, ktoré voľakedy žili len v divočine*; P6 – *väčšie zvieratá, ktoré kedysi žili iba v divočine*; P7 – *väčšie zvieratá, ktoré niekedy žili len v divokej prírode*. P2 failed to render the first part of the original phrase but its second part matched the prediction: *že keď žili v prírode*.

In interpreting fragment 5C (*are coming into towns and cities in growing numbers* with the predicted SurfOS: *prichádzajú do miest a veľkomiest v čoraz väčšom počte*). The output of P5 (14%) fully matched the prediction (*prichádzajú do miest a veľkomiest v stále väčších počtoch*), while all others omitted the word (*cities*). Most of them (57%) generally preserved the ST structure: P1 – *taktiež začínajú prichádzať do miest v obrovských číslach*; P2 – *tak prichádzali do miest v čoraz väčších počtoch*; P4 – *chodia do miest a.. a... aby... vo väčších počtoch*; P7 – *prichádzajú do miest vo veľ... vo veľkých množstvách*. Two participants (29%) attempted some additions and transformations (P3 – *prichádzajú viac a viac do miest a je ich stále... a ich počet stále rastie*; P6 – *začínajú chodiť do miest a je ich stále viac a viac*).

Sense-Oriented Strategy (SensOS)

As can be seen in Table 4, the proportion of SensOS in its pure form (16%) when translating in the FL–NL direction (series 2) is

almost four times lower than the corresponding proportion (63%) when translating in the opposite direction (series 1). This advantage, like in the SurfOS analysis, is reflected both in the maximum and minimum values (74% in P5 and 43% in P2 for the NL–FL translation and 24% in P2 against 3% in P5 for the FL–NL translation) and in the dispersion of the values in each series (the difference between the maximum and minimum values in the first series is 31% and 21% in the second). Due to the significant increase in the proportion of SurfOS (see above), the proportion of SensOS decreased for all participants. The largest decrease was observed in P5 (71%), followed by P7 (53%), P1 (44%), P6 and P4 (both 39%), P3 (38%) and P2 (19%).

Similarly to the analysis of the dynamics of changes in the share of SurfOS, a significant decrease in the proportion of SensOS is explained by a significant increase in the share of the former, which is related to the aforementioned characteristics of the Slovak language compared to English.

In the course of the analysis, there were no cases of SensOS use by all participants in relation to any ST fragment. Such use was only observed in some participants, which may be indicative of their individual characteristics.

For example, in translating fragment 1A (*A mountain lion was spotted last summer* with predicted SurfOS fragment *Puma bola zbadaná minulé leto*), the indefinite article allows to place the semantic object (*a mountain lion*) in the rhematic function at the beginning of the clause, while in Slovak the new information is usually positioned closer to the end of the clause. However, three participants (43%) retained it in the initial position, which is the SurfOS-related sign. One variant (P6) coincided with the prediction completely (*Puma bola spozorovaná minulé leto*), while P5 added the modifier (*americkú*) and substituted the passive with an impersonal construction (*Pumu americkú **spozorovali** minulé leto*), while P2 moved the verb to the end of the clause retaining the remaining elements in their original places (*Pumy boli toto leto **pozorované***). The rest of the participants rightly moved the rhema (*puma*) to the final position and fronted the adverbial of time (*minulé leto*), which can be viewed as the SensOS-related sign. Some of these variants involved only fragments' permutation (P1: *Minulé leto bola zbadaná puma*), while others also included transformation of the passive into active construction (*Minulé leto sme videli pumy* – P4) or bringing

in the adverbial of place from fragment 2 (*San Francisco*), which was placed before the predicate (P3: *Minulé leto v **San Francisco**, boli videné pumy*) or between the auxiliary and the main verb (P7: *Minulé leto bola **v San Francisco** videná puma*).

Similar phenomena are observed in fragment 6B (*because wilderness areas have shrunk* with the predicted SurfOS version *pretože divoká pôda (divočina) sa zmenšila*). When translating this simple sentence, whose structure is favourable for copying, four participants (57%) kept the first and last words and made some transformations between them, ranging from the simple addition of a word (P5 – *pretože divočina a jej... jej rozsah sa stále zmenšuje*) to clumsy attempts to convey the meaning of the original with a few words that were poorly recalled from memory, as evidenced by unmotivated pauses and repetitions (P1 – *pretože... eee... tieto... tato... tieto plochy v divočine sa zmenšili*) and inadequate substitutions (P1, P4 – *pretože ich prirodzené prostredie sa zmenšuje*). The other participants also paraphrased the last part of the sentence (P3 – *pretože... počet... pastviny,... ku ktorej sa dostávajú... v divočine, sa stále obmedzuje*; P6 – *pretože v divočine lúky a tieto planiny sú stále menšie a menšie*) or omitted it altogether, completely changing the meaning of the original text (P5 – *pretože... si tam chcú hľadať potravu*). This indicates that the translation of even simple sentences, whose structure allows its copying, requires considerable effort, which sometimes exceeds the capacity of some students' processors.

Similarly, in dealing with fragment 10B (*but by dashing in front of cars and causing accidents*, the predicted SurfOS version *ale vtrhnutím pred autá a spôsobením nehody*) only two participants (28%) managed to follow the structure of the original text in general, except for the preservation of the verbal noun (*vtrhnutím*), which they replaced with a prepositional phrase (*tým, že vybehnú/skáču*): P5 – ***ale tým, že vybehnú pred autá a spôsobujú nehody***; P6 – ***ale tým, že skáču pred autá a spôsobujú dopravné nehody***). The majority of the other participants used the same technique, but also expanded the scope of the translation by using additional words and other transformations because they had problems with conveying the meaning of the original: P1 – ***ale napríklad tým, že vybehnú pred autá a tým spôsobujú rôzne nehody***; P2 – ***a pretože veľakrát spôsobujú dopravné nehody tým, že skočia pred auto***; P3 – ***ale aj... tým, že..... narážajú do áut***

a *spôsobujú* mnoho dopravných nehôd; P7 – ale... *kvôli ich stretom s autami, ktoré spôsobujú veľa nehôd*. One participant, on the contrary, reduced the volume of her translation by deleting one fragment (*dashing in front of cars*) of the original text: P4 – ale *tým, že spôsobia nejaké dopravné nehody*.

Mixed Strategy

As can be seen from Table 4, the share of the mixed strategy (32%) in FL–NL translation (series 2) is twice as high as the corresponding share (16%) in NL–FL translation (series 1). This advantage, as in the analysis of the previous strategies, is expressed both in the maximum and minimum values (40% in P2 and 3% in P5 for NL–FL translation and 55% in P2 against 17% in P7 for FL–NL translation) and in the dispersion of the values in each series (the difference between the maximum and minimum values is 31% in the first series and 38% in the second). In other words, although the share of the mixed strategy increased in the second series for all participants, the hierarchy of participants with regard to this strategy is more stable than in the other strategies. The largest increase is observed in P1 (26%), followed by P4 (25%), P3 (19%), P2 (15%), P5 and P6 (both 11%) and P7 (6%).

Relative to the other strategies, the mixed strategy, although showing clear signs of strengthening, is the most stable compared to the other two strategies. On the other hand, as in the previous analysis, the use of mixed strategy is observed in almost all participants, but it is situational and difficult to predict.

For example, in dealing with fragment 4B (*and then come out to hunt or scavenge for their meals at night* with predicted SurfOS version *a potom vychádzajú loviť alebo hľadať potravu v noci*) three participants fronted the modifier of time (*v noci*). P1 followed the prediction otherwise (*a až v noci vychádzajú loviť, alebo vyberať odpadky*), P6 added a phrase in the middle of the predicted sentence and repeated the modifier of time at the end of the sentence (*a v noci vyrážajú von aby lovili a vyberali odpadky, aby mali čo jesť v noci*) and P3 substantially transformed the original structure (*a v noci vychádzajú zo svojich úkrytov, aby... vyberali rôzne odpadky a tak sa nasýtili*). The most numerous transformations and additions were observed in the output of P7: *Potom vyjdú vonku na to... na to, aby prechádzali pomedzi odpadky, hľadali jedlo, vyberajú odpadky a lovia*.

In fragment 17A (*Even wild animals that seem shy and harmless with the predicted SurfOS version* *Dokonca aj divoké zvieratá, ktoré sa zdajú byť plaché a neškodné*), P5 and P6 copied the structure of the ST completely and accurately. Others used some transformations, which ranged from minor additions or repetitions of words (P1 – *A aj tie... zvieratá... tie divoké... zvieratá, ktoré sa zdajú byť hanblivé a neškodné*; P3 – *Hoci... divé zvieratá... sa zdajú... často han... mmm... hanblivé alebo neškodné*) to more significant paraphrases due to the inability to convey the meaning concisely and therefore added some descriptive elements (P2 – *Aj keď sú tieto divé zvieratá možno ... na prvý pohľad také hanblivé, že nemôžu ublížiť*; P4 – *Niektoré divé zvieratá, ktoré vyzerajú že sú..., že sa hanbia alebo že sa boja a vyzerajú, že by vám nikdy neublížili*).

The same is true about fragment 17B (*can bite or hurt you with the predicted SurfOS version* *môžu uhryznúť alebo zraniť vás*). Almost complete copying of the structure of the original fragment is observed in participants P3 (*môžu uhryznúť alebo poraniť* – the omission of *vás*, which is clear from the context), P4 and P5 (*vás môžu uhryznúť alebo vám (môžu) ublížiť* – fronting *vás* and adding *vám* at the end of the sentence, as well as repeating *môžu* by P4) and P6 (*môžu uhryznúť alebo poraniť človeka* – replacing the pronoun *vás* with the noun *človeka*). Participant P1 also copies the ST structure, but with the addition of words at the beginning of the fragment (*vás vedia napríklad uhryznúť alebo ublížiť vám*). The complete transformation of this short fragment (with the omission of the word *uhryznúť*) is observed only in Participant 2: *pravdou je však že nás môžu zraniť*.

Omissions, Major Errors and Unmotivated Pauses

As stated earlier, omissions and major (information) errors in the participants' TTs are the formal indicators of the retention of the ST information in the TT and the lexical accuracy of the latter. Both omissions and major errors distort the content of the ST in the TT and thus decrease the amount of information intended for the ST author for the TT addressees. The non-motivated hesitation pauses (of the duration of over two seconds) and repairs signal the interpreter's problems in the delivery of the TT. Table 5 presents the comparative data on the ratio of omissions, major errors and pauses in the two series of the experiment.

Table 5

Comparative Ratio of Omissions, Major Errors and Pauses in the Two Series of the Experiment: 1 – Experimental Series 1; 2 – Experimental Series 2

P	Omissions (%) – 1	Omissions (number) – 2 fragment/ word	Major errors (number) – 1	Major errors (number) – 2	Long pauses (number) – 1	Long pauses (number) – 2
1	9	1/2	7	1	15	7
2	40	2/16	40	11	23	17
3	17	2/6	28	3	34	28
4	11	2/11	22	8	41	25
5	3	0/2	3	0	15	7
6	20	0/6	23	0	26	20
7	11	5/8	26	0	54	44
Avg	16	1.7/7.3	21.3	3.3	29.7	21.1

Omissions

As can be seen from Table 5, the total proportion of omitted ST information in TT differs significantly in the two series of the experiment. When translating in the NL–FL direction (series 1), the average value of omitted information is 16%. The largest proportion of omissions (40%) is observed in P2, followed by P6 (20%), P3 (17%), P4 and P7 (11% each) and P9 (9%). Only P5 has a relatively low rate of loss of source information (3%). When translating in the FL–NL direction (series 2), the average rate of the above-mentioned loss (omission of ST fragments) is more than three times lower (1.7 omitted fragments, i.e. about 5% of the total number of 35). The highest proportion of omissions was found in P7 (5 fragments, 14%), P2, P3 and P4 (2 fragments, 6%) and P1 (1 fragment, 3%). Two participants (P5 and P6) translated all the ST fragments.

When translating in the direction from FL to NL, it is more typical to leave out certain ST concepts, which are indicated by the corresponding words

In fragment 2 (*Small mammals like squirrels, mice, rats, skunks and possums have always lived in cities* with the predicted SurfOS version *Malé cicavce ako veveričky, myši, potkany, skunky a vačice vždy žili v mestách*) P4 and P7 omitted two names of the animals (*tchory, vačice*) each.

In fragment 4A, P2 and P3 had problems with the recall of the target language equivalents for labelling two locations (*pivnici* and *kanály*): *Trávia svoj čas tak, že spávajú v kríkoch*, while in fragment 4B, three participants omitted the phrase *scavenge for their meals*: P2 – *a potom sa vyberajú v noci loviť si nejaké jedlo*; P4 – *a ... chodia v noci loviť*; P5 – *Neskôr vychádzajú von, aby lovili svoje... svoju večeru v noci*.

Similarly, in fragment 6A (*Deer move to cities to eat shrubs, graze lawns and gardens* with the predicted SurfOS version *Jelene sa sťahujú do miest, aby požírali kriky, spásali trávniky a záhrady*) one participant strictly followed the ST structure but omitted one element (*shrubs*) (P5 – *Srnky prichádzajú do veľkomiest a spásajú trávniky a záhrady*). Two more (28%) omitted two elements (*shrubs* and *lawns*) otherwise generally keeping to the original structure (P2: *Napríklad vysoká zver sa dostala do miest a takisto do záhrad*; P6: *Jelene navštevujú mestá, aby jedli potraviny zo záhrad a podobne*).

Fragment 9 (*Deer kill and injure more Americans than any other animal* with the predicted SurfOS version *Jelene zabíjajú a zraňujú viac Američanov ako ktorékoľvek iné zviera*) is an extended simple sentence with many words, which probably forced all participants to follow the structure of the ST. It contributed to the successful translation of 57% of the participants, but for the remaining 43%, the amount of effort available was insufficient to simultaneously control the form and content of the TT, resulting in the omission of certain important information: P2 – *vysoká zver spôsobuje a zabíja čoraz viac Američanov než ostatná zver* (*deer are causing and killing more and more Americans than other wildlife*); P4 – *Tieto zvieratá môžu ublížiť viacej Američanom ako ktorékoľvek iné zvieratá* (*These animals can hurt more Americans than any other animals*). It is likely that the increase in the number of words in a sentence makes it more difficult to simultaneously control the delivery of the translation and the correspondence of its meaning to the source text.

In fragment 14 (*And bears routinely visit towns to raid dumpsters and garbage cans* with predicted SurfOS version *A medvede bežne navštevujú mestá, aby prepadávali smetné koše a odpadkové koše*), none of the participants managed to preserve in the translation all notions of the long fragment (11 words). Participants 1 (*No napríklad medvede navštevujú mestá pravidelne a vyjedajú tam odpady a rôzne smetiaky*)

and 5 (*A medvede pravidelne navštevujú mestá, aby sa pohrabali v smetiakoch a našli niečo na jedenie*) were the closest to the structure of the original. The first one rearranged the last two complements (*dumpsters and garbage cans*), and the last one replaced *odpadkové koše* (*garbage cans*) with the general descriptive phrase *našli niečo na jedenie* (*found something to eat*). Others simplified the original sentence by deleting the last element (*garbage cans*), failing to coordinate the elements of the original sentence, the number of which exceeded their available reserves: P4 – *napríklad medvede navštevujú mestá častejšie, aby vyberali odpadky*; P6 – *No a medvede už pravidelne navštevujú mestá aby vyberali kontajnery*; P7 – *Takisto aj medvede často navštevujú mestá, aby vyberali odpadky...* Participant 2 had more problems with conveying the meaning of the original text, omitting not only the last complement (see above), but also the predicate: *a takisto aj medvede, ktoré čoraz viac ... do miest aby vyrabovali kontajnery* (*and also the bears, which are increasingly ... into towns to loot containers*).

In fragment 16A (*Black bears have hibernated under houses in New Jersey suburbs* with the predicted SurfOS version *Čierne medvede prezimovali pod domami na predmestiach New Jersey*), solving the problem of the interpretation of the word *hibernated* took some of their resources of a number of participants, resulting in the loss of one semantic unit (*suburbs*) in the translation, generally mimicking the original structure: P2, P4 and P7 – *Čierne medvede hibernovali (hibernujú) pod domami v New Jersey*.

In fragment 16B (*and broken into cabins and cars in many mountain towns* with the predicted SurfOS version *a vlámali sa do chát a áut v mnohých horských mestách*), most of the participants, although generally following the sentence structure of the original, lost one or more semantic blocks in the translation: P4 (loss of the block conveyed by the word *cabins*) – *á snažili sa vlámať do niektorých áut v mnohých ... vysokohorských mestách*; P7 (loss of the block conveyed by the word *many*) – *a často sa aj vlámu do ... áut a domov v horských oblastiach*; P2 (loss of two blocks conveyed by the words *cabins* and *many*) – *a takisto sa ... vlámali aj do áut v horských mestách*; P3 (loss of three blocks conveyed by the words *cabins*, *many* and *mountain*) – *a taktiež... sa ... dostávajú aj do áut ... a do miest*.

Thus, omissions do happen in the FL–NL direction, and their nature is basically the same as in the NL–FL direction – overloading

of the participants' processing mechanism because of the number of factors requiring control exceeding the available capacity. However, the share of omission in the FL–NL SiT is substantially lower than in the NL–FL direction because a better command of the NL gives a wider processing time range.

Major Errors

As Table 5 shows, the average number of major errors in the two series of the experiment differs significantly. When translating in the NL–FL direction (series 1), the average number of major errors is 21.3. The highest number of errors (40) is observed in P2, followed by P3 (28), P7 (26), P6 (23) and P4 (22). Only in P1 (7 errors) and P5 (3) is the number of errors relatively low. When translating in the FL–NL direction (row 2), the average number of major errors is seven times lower (3.3). The maximum number of such errors was recorded in P2 (11) and P4 (8). Two other participants had a small number of them: P3 – 3 errors and P1 – 1. The remaining participants (P5, P6 and P7) had no such errors at all. Examples of major errors in some participants' TTs are presented below.

In fragment 4A (predicted SurfOS version *Trávia dni spaním v kríkoch, pivniciach alebo kanáloch*), P2, having problems with the recall of the target language equivalents for labelling two locations (*pivnici* and *kanály*) permuted the first two lexemes unexpectedly adding the negative prefix to the predicate of the first clause, which completely distorted its meaning (*ich netravia tak, že spia v kríkoch* – they **don't spend** them sleeping in the bushes).

In fragment 6A, the attempt to transform the ST structure resulted in the distortion of the ST meaning: P4 – *Niektoré väčšie zvieratá chodia do miest aby ... jedlí ... Pudské odpadky... alebo nejaké omrvinky a... a... chodia vyberať ... z polí úrodu a chodia takisto do záhrad* – Some larger animals go to the cities to ... eat ... **human garbage...** or **some crumbs** and... a... they go to **pick up... from the fields** and they also go to the gardens (compare to the ST: *Deer move to cities to eat shrubs, graze lawns and gardens*).

In fragment 7B (*as mountain lions are their main predator* with the predicted SurfOS version *ako pumy – ich hlavný predátor*), P4 in changing the original sentence structure, also changed the meaning of

the ST to the opposite one – *napríklad pre pumy, ako **keď sú vystavené** svojmu **prirodzenému predátorovi*** (for pumas, for example, as when they are exposed to their natural predator).

In fragment 11B (*like deer the way you like ice cream* with the predicted SurfOS version *majú radi jelene spôsobom, akým vy máte radi zmrzlinu*), P4 got confused by a long fragment that she added to her translation, which resulted in a significant change of the original meaning: – *majú radi niektoré iné zvieratá tak veľmi, ako napríklad **srny majú radi zmrzlinu*** (they like some other animals as much as **deer like ice cream**).

The simple four-word fragment 12A with a direct word order (*But they fear people* with the predicted SurfOS version *Ale oni sa boja ľudí*) did not cause any problems for the participants but the variant proposed by P2 (*Ľudia z nich majú strach – People are afraid of them*) clearly distorts the meaning of the ST. This may be due to the translator's loss of concentration caused by the considerable tension during the translation of the previous fragments of the text. It is partially confirmed by her failure to understand a word in fragment 13A (see further).

In fragment 13A (*Red foxes have little fear* with the predicted SurfOS version *Červené lišky majú malý strach*), P2, who had probably accumulated fatigue by this point, misunderstood the word *fear* taking it for *fur*, which made her translation meaningless: *Červené lišky majú len malú **srsť*** (Red foxes have **short fur**). The same concerns fragment 13B (*and are now more concentrated in cities than in the wild* with the predicted SurfOS version *a sú v súčasnosti viac koncentrované v mestách ako vo prírode*), where P4 attempted a radical transformation which resulted in a distortion of the ST meaning: *a sú ... viac **sebavedomé keď chodia do miest** ako keď chodia do svojho prirodzeného prostredia* – and they are ... more **confident when they go to cities** than when they **go to** their natural environment. The reason for this is the confusion of different meanings of the word *concentrated* ('focused on oneself' and 'gathered in a certain place') due to the fatigue.

In fragment 16A (see table 1), P3 unsuccessfully tried to guess the meaning of the word *hibernated*, which resulted in the translation losing its correspondence to the original text: *Medvede ... sa **schádzajú... pred domami** v New Jersey* (Bears... are **gathering... in front of** houses in New Jersey).

Thus, due to better NL proficiency, participants spend less effort on TT generation when translating in the FL–NL direction, which allows them to better control it and reduce the number of major errors.

Pauses

As Table 5 shows, the average number of long pauses (lasting at least 2 seconds) in the two series of the experiment is significantly different. When translating in the NL–FL direction (series 1), the average number of such pauses is 29.7. The highest number (54) is observed in P7, followed by P4 (41), P3 (34), P6 (26) and P2 (23). Only P1 and P5 (15 pauses each) have a relatively low number of them. When translating in the FL–NL direction (series 2), the average number of pauses is 1.4 times lower (21.1). The highest number of such pauses was recorded in P7 (44), followed by P3 (28), P4 (25), P6 (20) and P2 (17). The remaining two participants (P1 and P5) had a small number of such pauses – 7 each. At the same time, a significant number of such pauses (44) were made by P7, who, as in the first series, used the original tactic of sight translation, making a long pause before each ST fragment in order to read and understand it completely, and only then translating it. In other words, it was actually consecutive (rather than simultaneous) sight translation. Examples of pauses made by some participants are given below.

In fragment 1A P2's translation had pauses after almost every word (*Pumy... boli... toto... leto... pozorované...*), which can be explained by the fact that it was the first sentence of the ST and P2 had not yet fully switched to SiT. Similar problems arose for this participant when translating longer passages, where the overloading of her processing mechanism caused problems in the second part of the ST, where pauses signalled her translation problems. This is illustrated in fragment 2 (14 words): *Sú to napríklad malé cicavce ako veveričky, myši, potkany.. a tak isto aj.. teda... vačice. Sú... zvieratá , ktoré žijú v mestách.* Similar problems were also observed in P3 during the rendering of fragment 9 (10 words) – *Jelene... zabljajú... A taktiež... môžu zraniť... mnohých Američanov alebo im ublížiť viac ako akékoľvek iné zvieratá* (Deer... kill... And also... can injure... many Americans or hurt them more than any other animal), and in P1 – when translating even the shorter fragment 6B: *pretože... eee... tieto... tato... tieto plochy v divočine sa zmenšili*).

In fragment 6A, many participants turned out to have difficulties related to their inability to render the ST content in a concise and accurate manner. These are corroborated by hesitation pauses, backtracking, permutation of ST fragments, and addition of words absent in the ST: P1 – *Například. jelene sa premiestňujú do miest. Tam zjedajú rôzne kríky, taktiež spásajú rôzne.. trávniky a záhrady*; P3 – *Konkrétne jelene... Sa dostávajú do miest.. a aj pochutnávajú si na rôznych krikoach, trávnikoch. Chodia do záhrad*; P7 – *Vysoká zver... sa presúva do miest na to, aby jedli... jedli... v záhradách a v parkoch... kriky*. In some cases, it resulted in the distortion of the ST meaning: P4 – *Niektoré väčšie zvieratá chodia do miest aby ... jedlí ... ľudské odpadky... alebo nejaké omrvinky a... a... chodia vyberať ... z polí úrodu a chodia takisto do záhrad*.

In fragment 14, the attempts to preserve all sentence elements of the ST came into conflict with the available capacity, resulting in a sharp increase in the number of words in the TT and simultaneously in its quality and the amount of hesitation pauses. For example, P3's translation (*Medvede... pomerne často navštevujú mestá... a... často... si pochutnávajú na... rôznych odpadkoch... A... medzi ich aktívnosti patrí tiež vyberanie košov – Bears... quite often visit cities... and... often... enjoy... various garbage... And... their activities also include picking up trash cans... Just... in front of... home*) was twice as long as the original (23 words), full of pauses and the addition of words that were absent in the original text.

Thus, pauses as indicators of translation problems are also typical for the FL–NL direction, but their number is lower compared to the NL–FL direction, which indicates less overloading of the processing mechanism, probably due to the higher level of NL proficiency, which allows freeing up additional resources for the SiT process.

Conclusions

The aim of our study was to determine the influence of directionality on the quality of TT and its delivery. The data obtained show that directionality *is* a factor influencing the SiT efficiency.

The findings corroborated our assumption that due to the participants' higher proficiency in the NL, which provides additional

processing capacities, the delivery in the FL–NL SiT turned out to be 1,5 times faster than in the NL–FL direction.

The research hypothesis was also confirmed regarding the fuller retention of the ST information in the TT while sight-translating in the FL–NL direction due to the better command of the target language, which gives the sight-translator more time to process the ST and retain more of the ST information in the TT. The share of omissions in the FL–NL SiT is 1,7 times lower than in the NL–FL direction because of a wider processing time range provided by a better command of the NL. The share of major errors in the FL–NL direction is 7 times lower than in the NL–FL direction. Because the overwhelming majority of those errors are lexical ones, we may state the higher lexical accuracy of the TT in the FL–NL SiT, presumably due to the weaker links between the FL words and the common conceptual nodes shared by the two languages as assumed in the hypothesis.

The findings also support the assumption concerning the overall quality of the TT delivery, which turned to be better in the FL–NL direction as a combined effect of the higher share of the ST content retention in the TT, the higher lexical accuracy and a 1.4 times lower share of hesitation pauses and repairs.

The ratio of the surface-oriented (SurfOS) and the sense-oriented (SensOS) translation strategies is more flexible and less dependent on the ST structure in the FL–NL SiT. The share of SurfOS in the FL–NL direction is 2.5 times higher as compared to the opposite direction presumably because of the greater range of choices available to the participants in Slovak. It is explained both by the participants' better command of their NL and the greater freedom of the word order (compared to English) in this language.

The study also revealed some specific features of the use of different translation strategies. The conclusion about the dominance of the SurfOS strategy in the FL–NL SiT should not be taken literally. When translating short fragments with a simple structure favourable to calquing, there is a tendency to copy the structure of the ST fragment. But even in this case, such calquing is rarely full – there are minor additions and substitutions that indicate semantic processing of the ST information rather than mechanical substitution of the target language words for the source language ones. It shows that, at least at this level of communicative competence in the two languages, SiT is not

a mechanical substitution of the target language equivalents for the words in the ST, but a process of intensive intellectual activity related to the ST processing and the TT synthesis.

In addition, although in the FL–NL SiT most participants try to follow the sentence structure of the ST, the production of the TT requires considerable effort, resulting in a deviation from the sentence structure of the ST, which may also result in a deviation from its meaning and the loss of some blocks of content of the ST. The number of lost blocks is likely to depend on stress resistance, SiT expertise and other factors that may be the prospect of further research.

ADHERENCE TO ETHICAL STANDARDS

Ethics Declarations. Before the actual experiment, we obtained informed consent from its potential participants to take part in the research. In the course of our empirical research, we observed the applicable ethical principles, specifically the principles of voluntary participation, informed consent and confidentiality.

Funding. The research was funded by the EU Next Generation EU through the Recovery and Resilience Plan for Slovakia under the project No. 09I03-03-V01-00148. The authors do not have any financial or property interests concerning the materials presented in this article

Conflicts of Interest. The authors declare no conflict of interest.

Data Availability Statement. Chernovaty Leonid, Martin Djovčos, Natalia Kovalchuk. Sight-translation strategies and quality. Part 2. The impact of directionality. Available at SSRN: <https://ssrn.com/abstract=4568241>

Author contributions. **Chernovaty L.:** the idea, modelling of the theoretical concept and general design of the research, formulation of the research goals and objectives, general organization of empirical research, modification of stimulus material, analysis and interpretation of the research data, writing the body and abstracts of the article, drawing up a list of sources in the APA style, editing the article, preparation of the final version of the manuscript, submission of data to the international repository. **Djovčoš M.:** the idea, modelling of the theoretical concept and general design of the research, formulation of goals and objectives of the research, general organization of empirical research, planning and managing the implementation of experimental activity, selection of stimulus material, collection of informed consent from potential participants of the experiment, data collection, editing the article. **Kovalchuk N.:** processing of empirical data.

All authors commented on previous versions of the manuscript. All authors have read and approved the final version of the manuscript.

Consent for Publication. The authors jointly consent for the manuscript to be published by the journal.

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АНОТАЦІЯ

Метою цієї другої частини психолінгвістичного дослідження у мовній парі словацька-англійська мови є визначення впливу напрямку перекладу на породження тексту перекладу (ТП) та його презентацію шляхом порівняння характеристик усного перекладу з аркуша (УПА) майбутніх перекладачівіноземною мовою (ІМ) з рідної мови (РМ) і навпаки.

Процедура. Випробувані, семеро студентів магістерського рівня словацького університету, переклали з аркуша словацькою мовою з англійської неспеціалізований текст обсягом 272 слова. Потім їхні ТП порівнювалися з ТП тих самих студентів у першій серії дослідження, де вони перекладали неспеціалізований текст обсягом 250 слів англійською мовою зі словацької. Порівняння ґрунтувалося на таких параметрах: швидкість презентації ТП, ступінь збереження інформації тексту оригіналу (ТО) в ТП (на основі порівняльної частки втрат змісту ТО та інформаційних помилок у двох серіях), плавність презентації ТП (вимірювана відносним відсотком невмотивованих пауз) та порівняльне співвідношення стратегій перекладу, орієнтованих на поверхневу структуру та на смисл у двох напрямках УПА.

Результати. Швидкість презентації ТП в УПА у напрямку ІМ–РМ була в 1,5 рази вищою, ніж у напрямку РМ–ІМ. Для напрямку ІМ–РМ УПА характерним є повніше збереження інформації ТО в ТП. Частка втрати інформації ТО в УПА у напрямку ІМ–РМ у 1,7 рази менша, а кількість інформаційних помилок – у 7 разів менша, ніж у напрямку РМ–ІМ, що дозволяє говорити про вищу лексичну точність ТП в УПА при перекладі у напрямку ІМ–РМ. При здійсненні УПА у напрямку ІМ–РМ, співвідношення між стратегією перекладу, орієнтованою на поверхневу структуру і стратегією, орієнтованою на смисл є гнучкішим і менш залежним від структури ТО. З цієї ж причини, плавність презентації ТП у напрямку ІМ–РМ є кращою, що відображається у меншій кількості довгих невмотивованих пауз та самовиправлень у ТП.

Висновок. Напрямок перекладу є фактором, що впливає на ефективність УПА. Висновок про домінування стратегії перекладу, орієнтованої на поверхневу структуру, у ІМ–РМ не слід сприймати буквально. УПА – це не механічна заміна слів ТО їхніми відповідниками у мові перекладу, а процес інтенсивної інтелектуальної діяльності, пов'язаної з обробкою ТО і синтезом ТП.

Ключові слова: напрям перекладу, обробка тексту оригіналу, переклад з аркуша словацькою мовою з англійської, розумова активність, синтезування тексту перекладу; стратегія перекладу, орієнтована на поверхневу структуру; стратегія перекладу, орієнтована на смисл.