

Strategies and errors in the performance of professional translators, non-professional translators and translation students

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The paper reports the findings of a study investigating the differences in translation performance between professionals, non-professionals and students. Translation strategies applied by the three groups of participants, errors committed by them as well as errors made when applying a specific strategy are examined. An analysis of the impact of initial reading and summary of the source text on the translation process is an additional element. The results show that professional and non-professional translators do not differ in terms of the strategies they apply. However, they do differ as far as translation errors are concerned. The findings also suggest that the correlation between the use of specific strategies and the occurrence of particular errors is in some cases limited to one of the above-mentioned groups.

Keywords: *translation competence, translation errors, translation strategies, Translog.*

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1. Translation strategies and translation errors based on Hejwowski's theory

The study presented below is based on the psycholinguistic model of translation proposed by Hejwowski (1992) as well as on Hejwowski's classification of translation errors (2004).

Hejwowski (2004: 76) defines translation strategy as “a translator's (consciously or unconsciously) preferred procedure within an entire text or its significant passages” [this and further English translations are my own]. In his unpublished PhD dissertation (1992) he lists four basic translation strategies which correspond to the levels distinguished in his model. The first strategy is the superficial strategy, based on “automatized knowledge of corresponding surface structures [...] of two languages” (Hejwowski 1992: 85). This strategy allows a person to translate texts or passages that they do not fully understand. The second, called the case frame selection strategy, is based on the knowledge of a set of basic semantic roles as well as on the knowledge of correspondences between different

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case frames of two languages. This strategy allows a person to translate sentences to which they can assign an appropriate case frame, without the need to resort to frames and schemes of upper levels. The next one is the scenario strategy, which I call the strategy of scenes and scenarios by reference to the corresponding level of Hejwowski's model. This strategy is based on the knowledge of typical sequences of events or actions. Its use usually requires some knowledge of the realities of both cultures. The strategy allows greater flexibility in translation, it also permits significant changes at the surface level. Finally, the scheme strategy requires "an explicit representation of the author, the audience and the translation situation, a good understanding of the essence of the problem, knowledge of the narrative framework applied by the author and of the corresponding narrative framework applied in the target language culture" (Hejwowski 1992: 85). One of these different elements can predominate in a given act of translating, e.g. the translator can rely on their knowledge of the appropriate narrative framework rather than on the representation of the author or the audience.

With regard to translation errors Hejwowski (2004) proposes the following classification:

(1) Errors of syntagmatic surface translation. Such errors result from an incorrect use of the superficial strategy due to a lack of time, an insufficient knowledge of the source language or culture, an inadequate knowledge of other procedures, or sometimes the translator's belief in the superiority of literal translation (cf. Hejwowski 2004: 126). This category includes calques, false friends, unjustified borrowing and erroneous use of most typical dictionary equivalents.

(2) Errors of mistaken interpretation. These are errors occurring when analyzing the source text, such as misreading syntagmas and wrong interpretation of case frames, misinterpreting scenes and scenarios or misreading the text modality.

(3) Realization errors. This category includes errors occurring when producing translation, such as wrong evaluation of the audience's knowledge, target language errors, errors resulting from an insufficient general or specific knowledge and undertranslation.

(4) Meta-translation errors. The last category includes errors resulting from an insufficient knowledge of the essence of translation or an inadequate knowledge of the commonly accepted norms of translation (cf. Hejwowski 2004: 142). These are the following errors: inadequate choice of translation technique, omissions, additions, unjustified corrections, lack of necessary corrections, proposing two versions of translation and too many or too few footnotes.

The present study was aimed at ascertaining whether professional translators, non-professional translators and translation students differ in terms of the strategies they apply and the errors they make. Firstly, I expected that the tendency to follow the superficial strategy would decrease with experience. I

hypothesized that professionals would apply this strategy less frequently than students and students less frequently than non-professionals, while strategies requiring more in-depth text analysis would be followed more often. Secondly, I investigated the impact of initial reading and summarizing of the source text on the choice of translation strategies. I expected that participants who did read and summarize the source text prior to translating would follow the superficial strategy less often than those who did not. Thirdly, I examined the errors made by participants with different level of experience in translation. My assumption was that non-professionals would make more mistakes at the surface structures level than students and students would make more mistakes at this level than professionals. Finally, I analyzed the relationship between the strategies followed by participants and the errors made by them.

2. Method

2.1. Participants and procedure

The participants were 21 French to Polish translators with many years of experience, 20 students of applied linguistics with French language and 20 persons with no background in translation and with advanced-level French language skills. Further in the text I refer to these groups by the terms “professionals”, ”students” and ”non-professionals”.

The main task was to translate an article of 365 words from French to Polish. The process of translation was recorded using Translog (Carl 2012). The participants had access to hard copies of a French-Polish dictionary and a monolingual French dictionary and their behavior during translation was filmed. After the task was finished I interviewed the participants about the completed task.

To analyze the role of initial reading and summarizing of the source text the participants were randomly assigned to groups. In the experimental group before taking up the task the participants were asked to read the article very carefully. Afterwards, without being able to refer back to the text, the participants filled in an expanded version of a questionnaire with a sentence recognition test and instructions to write a summary in Polish. In the control group the participants didn't read the text and filled in only the basic version of the questionnaire concerning their experience in translation. After the task was finished I interviewed the participants about their work. For a more detailed description of participants and procedure see Płońska 2015.

2.2. Data analysis

The dataset was added to the CRITT Translation Process Research Database (see Carl et al. 2015). The translations were manually aligned using the YAWAT tool (see German 2008). For the purposes of the analysis, the data were subsequently processed into a set of tables. In order to operationalize translation strategies a data-driven approach was adopted. The analysis encompassed the final versions of translations and was blind, i.e. I did not know who had produced the translations.

Firstly, I operationalized the superficial strategy. According to Hejwowski's definition (1992: 85), the strategy is based on "automatized knowledge of corresponding surface structures [...] of two languages". The data registered by Translog did not permit any conclusions to be drawn as to automatic or nonautomatic nature of the respective phases of translation process. Therefore I assumed that the indicator of use of the superficial strategy would be the literality, and not the automaticity of translation (cf. Płońska 2015). I used the definition of literal translation formulated by Kielar (2013: 51), according to which in literal translation, the rules of the syntax of the target language are used to combine the words calqued from the source language as separate lexical units. As the surface structures in Hejwowski's theory include not only separate words, but also syntagmas, Kielar's definition was extended to encompass both words and phrases. It is worth mentioning that Kielar's definition does not presuppose that the word order should be preserved in translation. In fact, French and Polish differ substantially in terms of word order. As noted by Gniadek (1979: 131-132), "in French the order of items is fixed since the disappearance of the nominal inflexion, while in Polish the order of items is freer because the form of the noun indicates its function in the sentence". Given these differences, in the present study I decided not to apply the identical word order as one of the criteria of literality of translation.

Secondly, for every passage of the French text I tried to imagine all the possible superficial translations by using dictionary equivalents of French words and expressions and by connecting them according to Polish syntax rules. I used "The Great French-Polish Dictionary" (Dobrzyński et al. 1996) as a reference material. I also introduced an additional rule according to which a given translation was considered as a superficial translation of a French lexical unit if it had been proposed by more than 1/3 of the participants. The reason I did it was because not all the closest equivalents of French words and expressions can be found in the dictionary, e.g. a Polish term "swobodny przepływ" which is an official translation of the French term "libre circulation" is not listed there. The additional rule was used in 13 cases. Afterwards, I compared the actual translations with the imaginary superficial ones. I marked all the passages that matched superficial translations as translated superficially. I labeled all the passages that contained changes compared to superficial translations as translated using the strategy of scenes and scenarios or the scheme strategy.

I assumed that the indicator of use of the strategy of scenes and scenarios would be the following changes made in the translated text as compared to the superficial translation, suggesting that the participant had based his or her translation on a representation of a whole scene or scenario:

- adding elements of a scene that were not in the original text or were only implied,
- using an equivalent that is only an equivalent in the given context,
- replacing metaphors with non-metaphorical expressions and vice versa, finding an equivalent metaphor in the target language,
- replacing a full word or name by an abbreviation and vice versa,
- changing the modality,
- changing how a scene is constructed (all kinds of syntactic changes, e.g. changes in the cases of nouns, or semantic changes, e.g. use of synonyms with different semantic range).

Regarding the scheme strategy, I assumed that the indicator of use of this strategy would be the following changes made in the translated text as compared to the superficial translation, suggesting that the participant organized the text, tried to make it coherent or thought about the reader:

- adding connectors,
- replacing elements present in the text with deduced elements in the case of references to elements mentioned previously,
- dividing and joining sentences,
- significant changes in headings,
- using cultural equivalents,
- adding or omitting polite forms.

The case frame selection strategy turned out to be impossible to identify, due to the lack of independent indicators.

Some of the passages were marked as translated using two or three of the strategies. An example of multiple labeling of different translations of a short French sentence is provided in Table 1.

Multiple labeling of translation strategies

	Original text	Imaginary superficial translation	Participant's translation
Scheme strategy + superficial strategy	En vain. [In vain.]	Na próżno. [In vain.]	Na próżno jednak . [In vain though .]
Scheme strategy + strategy of scenes and scenarios	En vain. [In vain.]	Na próżno. [In vain.]	Jej wysiłki są jednak daremne. [Her efforts are vain though .]
Strategy of scenes and scenarios + superficial strategy	En vain. [In vain.]	Na próżno. [In vain.]	Wszystko na próżno. [All in vain.]
Scheme strategy + strategy of scenes and scenarios + superficial strategy	En vain. [In vain.]	Na próżno. [In vain.]	Wszystko jednak na próżno. [All in vain though .]

In order to verify how much the labeling of strategies depends on one's subjective evaluation, three raters labeled strategies in 20 randomly chosen final versions of translations. Fleiss kappa was calculated to assess inter-rater agreement. The results revealed a fair to good level of agreement for the strategies altogether, $\kappa = 0,59$. Agreement was highest for the strategy of scenes and scenarios, $\kappa = 0,80$, and lowest for the scheme strategy, $\kappa = 0,54$. For the superficial strategy the level of agreement was very good, $\kappa = 0,77$.

Finally, I identified translation errors in the final versions of translations based on Hejwowski's classification (2004). The same analysis was carried out by another linguist. Afterwards we discussed the cases where we disagreed and only the obvious errors were included in the quantitative analysis.

The results of the qualitative analysis showed that the participants' translations did not include some of the errors listed in the classification, such as unjustified borrowings, wrong evaluation of the audience's knowledge, unjustified corrections, lack of necessary corrections and too many or too few footnotes. On the other hand, the translations contained some errors that could not be classified

into any of the categories enumerated by Hejwowski (2004). Those errors can be defined as a wrong choice of translation equivalent in the case where the proposed equivalent is not a typical dictionary equivalent. Therefore it proved necessary to add a subcategory of realization errors called “wrong choice of equivalent”.

3. Results

3.1. Translation strategies

The quantitative analysis included strategies identified both in the final versions of translations and in the entire translation process. As the results concerning the entire process do not differ substantially from the ones regarding the final versions, only the latter are presented below. The total number of source text words translated using each strategy was adopted as a measure of use of the strategies.

In order to verify whether the groups differ in their use of specific strategies and whether initial reading and summarizing of the source text affects the participants choice of translation strategies, for each strategy a two-way analysis of variance (ANOVA) was performed with experience (non-professionals, students, professionals) and initial reading and summary (yes, no) as factors.

For the superficial strategy the results revealed a statistically significant effect of the main variable experience, $F(2, 55) = 5.39$; $p < 0.01$; $\eta^2 = 0.16$. The students translated significantly less text using this strategy than the non-professionals. Furthermore, the effect of the interaction between the variables experience and initial reading and summary was statistically significant, $F(2, 55) = 7.38$; $p < 0.01$; $\eta^2 = 0.21$ (Fig. 1).

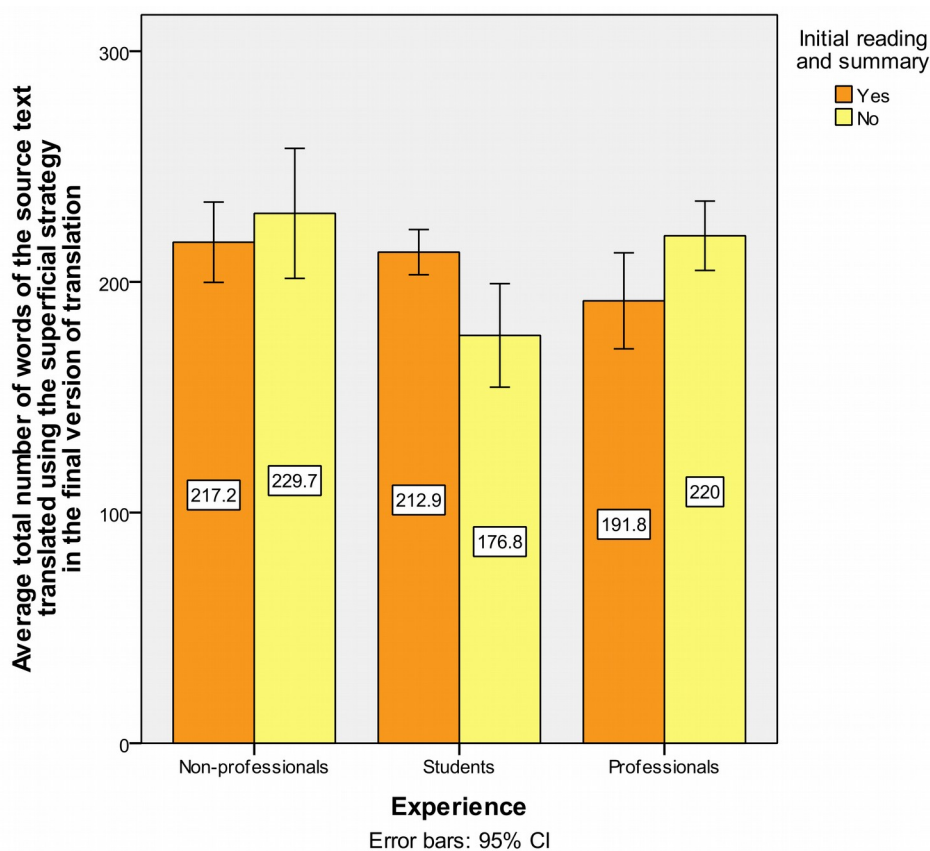


Figure 1. Average total number of words of the source text translated using the superficial strategy in the final version of translation depending on the experience and depending on whether the source text had been read and summarized prior to commencing translation.

Simple effects analysis showed that the students used the superficial strategy significantly less often than both the professionals and the non-professionals, but only when the participants did not read and summarize the text prior to commencing work. The initial reading and summary writing significantly reduced the use of the superficial strategy among the professionals and significantly increased the use of this strategy among the students.

The opposite effects were observed for the strategy of scenes and scenarios. The ANOVA results revealed a statistically significant effect of the main variable *experience*, $F(2, 55) = 5.61$; $p < 0.01$; $\eta^2 = 0.17$. Both the professionals and the students translated significantly more text using the strategy of scenes and scenarios compared to the non-professionals. The interaction shown in Figure 2 was also significant, $F(2, 55) = 3.80$; $p < 0.05$; $\eta^2 = 0.12$. Simple effects analysis showed that the students translated significantly more text using the strategy of

scenes and scenarios compared to the non-professionals, but only when the participants did not read and summarize the text prior to translating it.

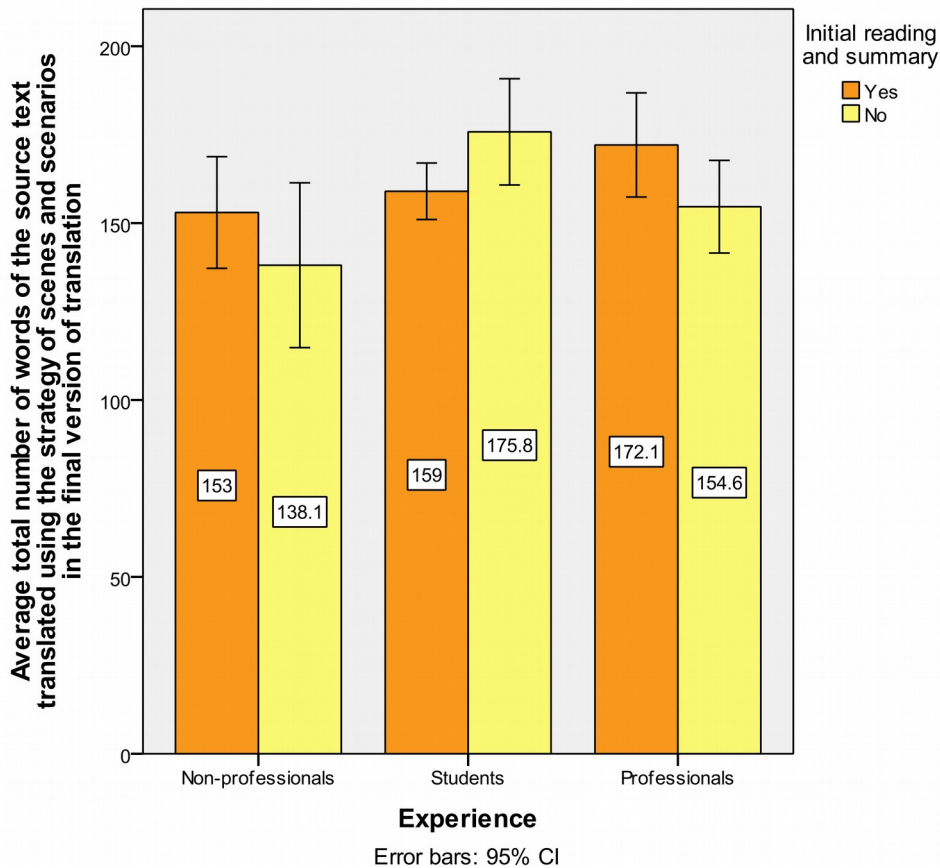


Figure 2. Average total number of words of the source text translated using the strategy of scenes and scenarios in the final version of translation depending on the experience and depending on whether the source text had been read and summarized prior to commencing translation.

As far as the scheme strategy is concerned, the ANOVA revealed a statistically significant effect of the main variable *experience*, $F(2, 55) = 8.13$; $p < 0.01$; $\eta^2 = 0.23$ (Fig. 3). The students used this strategy significantly more often than the other groups. There was no interaction between the variables experience and initial reading and summary.

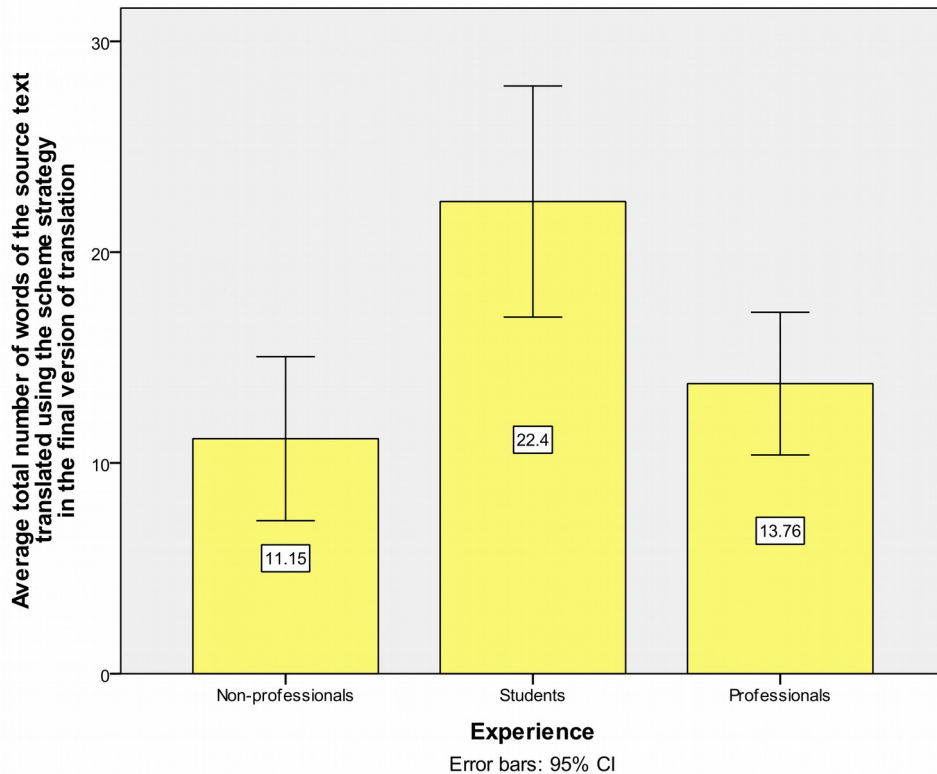


Figure 3. Average total number of words of the source text translated using the scheme strategy in the final version of translation depending on the experience.

3.2. Translation errors

In order to verify the hypothesis according to which non-professionals would make more mistakes at the surface structures level than students, and students would make more mistakes at this level than professionals, a one-way ANOVA was conducted. The independent variable was experience (non-professionals, students, professionals) and the dependent variables were errors of syntagmatic surface translation and realization errors. As in both cases the homogeneity of variance assumption was broken, a Welch test was performed. The ANOVA results showed a statistically significant effect of the variable experience for both errors of syntagmatic surface translation, $F(2, 33) = 5.83$; $p < 0.01$, and realization errors, $F(2, 37) = 8.95$; $p < 0.01$. A Games-Howell post hoc test revealed significant differences between the non-professionals and the other groups (Fig. 4). Compared to the students and the professionals the non-professionals made significantly more errors of syntagmatic surface translation and realization errors.

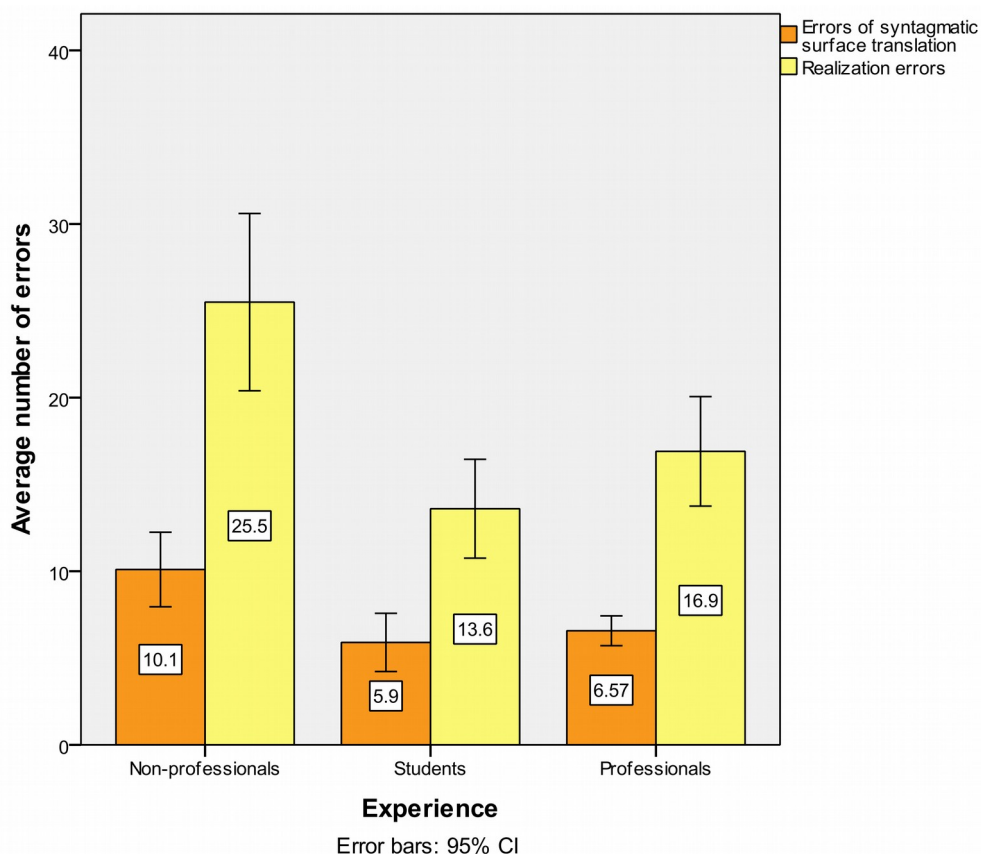


Figure 4. Average total number of errors of syntagmatic surface translation and realization errors depending on the experience.

The next step was to conduct an analogous ANOVA for the other categories of errors. The results revealed a significant effect of the variable experience for errors of mistaken interpretation, $F(2, 58) = 5.44$; $p < 0.01$; $\eta^2 = 0.16$. A Scheffe post hoc test showed that the professionals differed substantially from the other groups (Fig. 5). Both the non-professionals and the students made more errors of mistaken interpretation than the professionals. A similar, though stronger effect was observed for a subcategory of those errors which is misinterpreting scenes and scenarios, $F(2, 58) = 6.28$; $p < 0.01$; $\eta^2 = 0.18$. Once more a Scheffe post hoc test revealed the advantage of the professionals over the students and the non-professionals (Fig. 5).

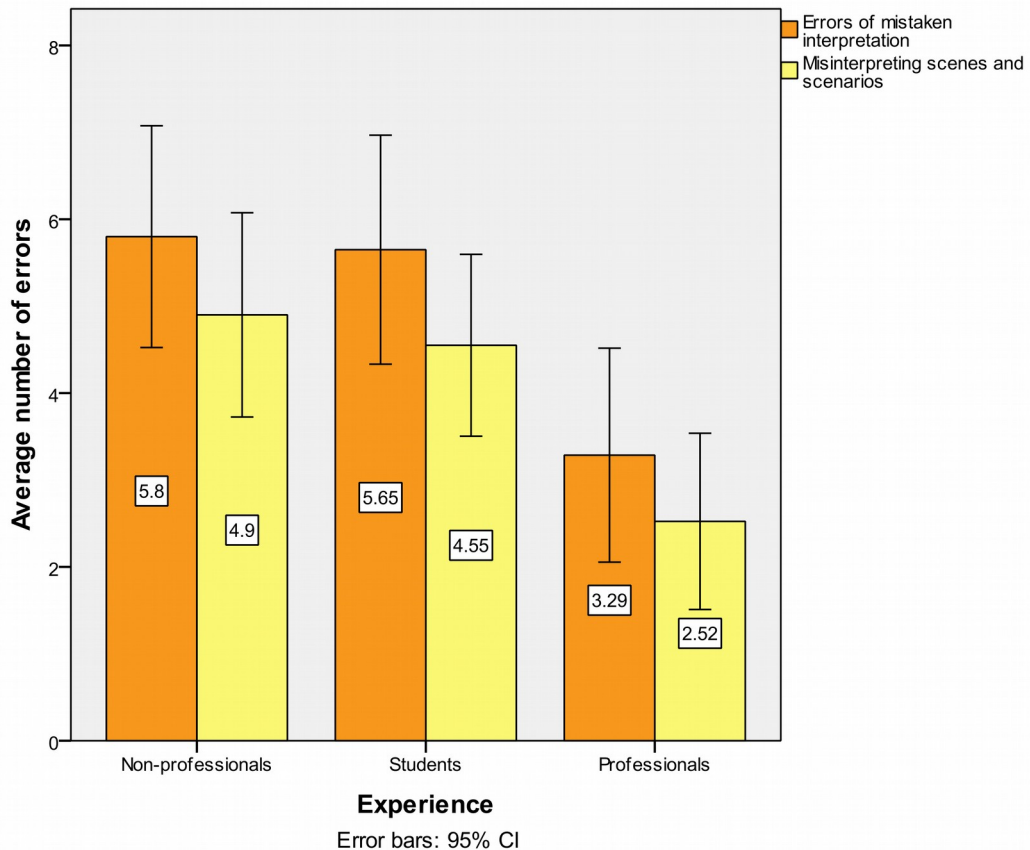


Figure 5. Average total number of errors of mistaken interpretation and errors of misinterpreting scenes and scenarios depending on the experience.

For meta-translation errors and other subcategories of errors no significant effects were observed.

Afterwards, in order to verify whether the use of specific strategies was associated with the occurrence of particular errors, Pearson's correlation coefficients were calculated for each strategy and each category of errors. The results revealed a strong positive relationship between the use of the superficial strategy and the occurrence of errors of syntagmatic surface translation, $r = 0.67$; $p < 0.01$, in particular calques, $r = 0.70$; $p < 0.01$. They also showed a moderate positive correlation between the use of this strategy and the occurrence of realization errors, $r = 0.38$; $p < 0.01$, especially target language errors, $r = 0.38$; $p < 0.01$. On the other hand, the results revealed a relatively strong negative relationship between the use of the superficial strategy and the occurrence of meta-translation errors, $r = -0.51$; $p < 0.01$. Within this category of errors the use of the superficial strategy correlated negatively with the occurrence of additions, $r = -0.43$; $p < 0.01$, and omissions, $r = -0.44$; $p < 0.01$.

For the strategy of scenes and scenarios and the scheme strategy the directions of correlations were precisely the opposite. The results revealed a negative relationship between the use of the strategy of scenes and scenarios and the occurrence of both errors of syntagmatic surface translation, $r = -0.64$; $p < 0.01$, and realization errors, $r = -0.35$; $p < 0.01$. For the scheme strategy the corresponding results were respectively $r = -0.48$; $p < 0.01$ and $r = -0.41$; $p < 0.01$. In contrast, a positive correlation was observed between the occurrence of meta-translation errors and the use of the strategy of scenes and scenarios, $r = 0.28$; $p < 0.05$, and the scheme strategy, $r = 0.36$; $p < 0.01$.

Finally, Pearson's correlation coefficients measuring relationships between the use of specific strategies and the occurrence of particular errors were calculated separately for non-professionals, students and professionals to investigate whether these relationships are different depending on the participants' experience. The significant results are shown in Table 2.

Pearson's correlation coefficients measuring relationships between strategies and errors depending on the experience

	Superficial strategy			Strategy of scenes and scenarios			Scheme strategy		
	NP	S	P	NP	S	P	NP	S	P
E D E	0,53 *	0,08	0,01	-0,47 *	-0,03	0,05	-0,57 **	0,02	0,24
F F	–	–	–	0,06	-0,46 *	-0,24	–	–	–
C	0,77 **	0,72 **	0,36	-0,70 **	-0,59 **	-0,44 *	-0,54 *	-0,35	-0,44 *
E S T	0,77 **	0,59 **	0,36	-0,70 **	-0,50 *	-0,38	-0,62 **	-0,27	-0,29
S C F	–	–	–	–	–	–	-0,08	-0,54 *	-0,08
T L E	0,15	0,51 *	0,21	-0,13	-0,47 *	-0,26	-0,09	-0,42	-0,45 *
W E	-0,04	0,53 *	-0,05	–	–	–	–	–	–
R E	0,14	0,56 *	0,16	-0,10	-0,45 *	-0,18	-0,07	-0,41	-0,51 *
O	-0,42	-0,66 **	-0,60 **	–	–	–	–	–	–
A	-0,48 *	-0,47 *	-0,36	0,46 *	0,58 **	0,48 *	0,59 **	0,35	0,59 **
T V	-0,07	0,45 *	-0,27	0,09	-0,52 *	0,16			
M E	-0,50 *	-0,68 **	-0,70 **	0,34	0,38	0,48 *	0,51 *	0,43	0,29

Note. NP – Non-professionals, S – Students, P – Professionals, EDE – Errors of dictionary equivalents, FF – False friends, C – Calques, EST – Errors of syntagmatic translation altogether, SCF – Misreading syntagmas and wrong interpretation of case frames, TLE – Target language errors, WE – Wrong choice of equivalent, RE – Realization errors altogether, O – Omissions, A – Additions, TV – Two versions, ME – Meta-translation errors altogether.

** Significant at $p < 0.01$ level (two-tailed). * Significant at $p < 0.05$ level (two-tailed).

The results showed that the correlation between the use of specific strategies and the occurrence of particular errors was in some cases limited to one of the groups. For instance, for the professionals there was no correlation between the use of the superficial strategy and the occurrence of calques and errors of syntagmatic translation altogether. On the other hand, the use of this strategy correlated positively with the occurrence of target language errors, errors of wrong choice of equivalent and realization errors altogether only in the group of students. The students were also the only group where the occurrence of two versions of translation correlated positively with the use of the superficial strategy, and negatively with the use of the strategy of scenes and scenarios. By comparison, the non-professionals were the only group where the use of the superficial strategy was not correlated with a lower number of omissions. Also, the occurrence of errors of dictionary equivalents correlated positively with the use of the superficial strategy and negatively with the use of two others strategies in this group only. As regards the strategy of scenes and scenarios, its use was correlated with a lower number of false friends, target language errors and realization errors altogether only in the group of students. In contrast, it was correlated with a higher number of meta-translation errors altogether only in the group of professionals. Regarding the scheme strategy, its use was correlated positively with the number of meta-translation errors altogether only in the group of non-professionals, and negatively with the number of target language errors and realization errors altogether only in the group of professionals.

4. Discussion

The results only partially conform to my preliminary hypotheses. The hypotheses concerning a linear relationship between the experience in translation and the frequency of use of the superficial strategy and the more advanced translation strategies were not confirmed in the current study. It turns out that among the participants who did not read and summarize the source text before translating it, the students used the superficial strategy not only less frequently than the non-professionals (what conforms to my expectations), but also less frequently than the professionals. Also, for the scheme strategy a curvilinear relationship was observed. The students used this strategy significantly more often than both the non-professionals and the professionals. The similar pattern was observed for the strategy of scenes and scenarios, though the difference in use was statistically significant between the non-professionals and the students only.

As regards the errors made by participants with different experience in translation, the hypothesis according to which non-professionals would make more mistakes at the surface structures level than students and professionals was confirmed in the present study. The non-professionals did make significantly more

errors of syntagmatic surface translation and realization errors than the other groups. However, the results revealed no difference between the students and the professionals in this respect. In contrast, the professionals made significantly less errors of mistaken interpretation than both the non-professionals and the students.

The results concerning the impact of initial reading and summarizing of the source text on the translation process conform to my preliminary expectations in as much as reading and summarizing the text reduced the differences between the groups. However, the influence of this variable is different for the three groups. As far as the superficial strategy is concerned, the initial reading and summary writing caused the students to use this strategy more often, as compared to the control group, and the professionals to use it less often, as compared to the control group.

Furthermore, the study reveals significant relationships between the use of specific strategies and the occurrence of particular errors. The strongest positive correlations were observed between the use of the superficial strategy and the occurrence of errors of syntagmatic surface translation, especially calques, and realization errors, as well as between the occurrence of additions and the use of the strategy of scenes and scenarios and the scheme strategy. On the other hand, the strongest negative correlations were observed between the use of the superficial strategy and the occurrence of meta-translation errors, mainly additions and omissions, as well as between the use of the strategy of scenes and scenarios or the scheme strategy and the occurrence of errors of syntagmatic surface translation, especially calques, and realization errors, especially target language errors.

However, when the experience factor is taken into consideration in the analysis, it turns out that the aforementioned relationships are true for some of the groups only. For instance, for the professionals no correlation was observed between the use of the superficial strategy and the occurrence of calques and other errors of syntagmatic surface translation. Moreover, the use of this strategy was correlated with the occurrence of target language errors and other realization errors in the group of students only. Also, the students were the only group where no correlation was observed between the use of the scheme strategy and the occurrence of additions.

In my view the most interesting results concern the group that is in the process of developing translation competence, i.e. the students. In fact, the students differ most from the other groups as far as the use of translation strategies is concerned. First of all, the students used the superficial strategy less often than both the professionals and the non-professionals. In my opinion students' reluctance to use the superficial strategy might be the result of translators' training (cf. Płońska 2015). Students learn at a very early stage that the use of literal translation often results in translation errors and can be regarded as a sign of incompetence. This is the probable reason why they perceive the superficial strategy as their last resort and try to avoid it.

In contrast, experienced translators can consciously use this strategy to the extent allowing them to provide translations that are both linguistically correct and faithful to the original text. It is even easier to apprehend given that a literal translation requires less time and effort (cf. Schaeffer, Carl, 2014). This would account for why the professionals do not differ from the non-professionals in terms of frequency of use of the superficial strategy. However, the two groups differ in terms of errors occurring when using this strategy. Namely, in the group of professionals the use of the superficial strategy is not correlated with the occurrence of errors that are typical of this strategy, such as calques and erroneous use of most typical dictionary equivalents. Consequently, it seems that the difference in competence between professionals and non-professionals resides not in the frequency of use of the strategy, but in the ability to apply it correctly.

The students differ from the other groups also in terms of frequency of use of the scheme strategy, which they used more often than both the professionals and the non-professionals. Moreover, they are the only group where the use of the scheme strategy do not correlate with the occurrence of errors that are typical of the strategy, i.e. additions. I think that the use of the scheme strategy can be associated with the notion of textual competence as defined by Campbell (1998: 60). Thus, the more frequent use of the scheme strategy in the group of students would be a manifestation of a newly acquired textual competence, the development of which is emphasized in translators' training. Therefore I interpret this result again in terms of effects of training.

The last of the unanticipated results concerns the different impact of initial reading and summary writing on the choice of translation strategies. I believe that having a mental representation of the text before taking up the task allows the translator to be more free in their choice of available translation strategies, including the superficial strategy. This would account for why, contrary to my preliminary expectations, the students who did read and summarize the source text prior to commencing work used this strategy more often than those who did not. However, it is only one of the possible hypotheses. Interpretation of this result requires further, more detailed research.

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