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THE EFFECT OF EMOTIONS ON TRANSLATION PERFORMANCE¹

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Abstract

The purpose of this paper is to investigate the effect of emotions and some personality traits on translation performance. It builds on Rojo and Ramos's (2016) findings and is broadly based on their methodology, but introduces some methodological changes. It replicates their experiment with translation students in another language pair (English L2>Macedonian L1) following their three step procedure: resiliency test, translation-bogus feedback-translation, self-reporting questionnaire. Following their recommendations (ibid.), the change in methodology involves using comparatively easier translation tasks. The paper aims to provide answers as to: the effect of positive and negative emotions on overall translation performance; the effect of positive and negative emotions on different aspects of translation performance (accuracy vs. creativity) and the role of the personality trait of resilience in regulating negative emotions.

Keywords: emotions, feedback, creativity, accuracy, resilience, translation process

1. Introduction

Translation is one of the most complex language-related cognitive activities in humans. Its underlying nature involves problem-solving and often requires creative language solutions and retrieval of area-specific knowledge. These requirements of translation as a communicative task make it challenging to explore the impact of emotions on translation performance because currently there is no scientific consensus on a definition of emotions as they are often intertwined with concepts such as mood, temperament, personality, disposition etc. Nonetheless, Rojo's assumption (2017) that decision-making is not merely the

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result of pure rational thought, has paved the way for researching the role that emotions and other psychological traits play in the translation process.

The purpose of this paper is to investigate the effect of emotions and some personality traits on translation performance. Building on Rojo and Ramos's (2016) findings, the paper aims to provide answers as to: the effect of positive and negative emotions on overall translation performance; the effect of positive and negative emotions on different aspects of translation performance (accuracy vs. creativity) and the role of the personality trait of resilience in regulating negative emotions. We start by reviewing previous research on the topic. We then present the study together with the design and methodology, followed by the presentation and analysis of results. Finally, we provide a discussion and conclusions.

2. Previous research on translation and emotion

The past two decades have seen some interesting and significant advances in exploring the effect of emotions in translation performance and the purpose of the following review section is to shed light on some of them.

Given that positive affect leads to a better performance in simple cognitive tasks, Spering, Wagener and Funke (2005) investigate whether positive and negative emotions differentially influence performance in complex problem-solving in the same way. Emotions have been induced by positive or negative feedback in 74 participants who had to manage a computer-simulated complex problem-solving scenario. Overall scenario performance is not affected, but positive and negative emotions elicit distinguishable problem-solving strategies: participants with negative emotions are more focused on the seeking and use of information.

The role of emotions in the translation process has been investigated by Lehr (2011, 2012, 2013), whose results suggest that positive and negative emotions may trigger different processing styles and contribute to revealing the influence that emotion may exert on cognitive processes. More specifically, "positive emotions seem to lead to translators' more creative thinking, whereas negative emotions result in more accurate and systematic processing." (Rojo and Caro 2016:112).

Personality traits like intuition or emotional intelligence have been shown by Hubscher-Davidson (2009, 2013a, 2013b) to play a role in regulating translators' behaviour and to bring about more successful translating. Her results indicate that intuition needs to be backed up by sound knowledge to guarantee successful translating even when the difficulty level of the task is low. Her study (2013b) points to the importance of the type of task carried out, since her data showed literary translators to achieve higher scores in emotion regulation than non-literary translators.

In interpreter studies, Bontempo and Napier (2011) propose that factors of general cognitive ability and personality account for interpreter performance variance. Given the interplay between individual personality traits and job performance across many occupations, the study aims at determining which traits play the most important role and to what extent these variables impact on learning and achievement. The paper reports on a study of 110 accredited signed language interpreters in Australia. Psychological constructs of self-efficacy, goal orientation and negative affectivity were measured, as were interpreter ratings of self-perceived competence as practitioners. Most significantly, emotional stability (represented on the negative end of the continuum by traits of anxiety and neuroticism, and measured in this study by the negative affectivity scale) was revealed to be a predictor of interpreter's self-perceived competence.

Bayer-Hohenwarter (2011) attempted to measure translational creativity, in particular, the ability of students of translation and professional translators to depart from the source text (ST) structure by applying creative shifts, i.e., abstracting, modifying or concretising source text ideas in the target text (TT). Aiming at finding out how many of the analysed samples constituted creative shifts as opposed to mere reproductions of the source text, the analysis revealed clear differences between student and professional behaviour and that a certain trend for the development of creative competence can be established. These results indicate a methodologically interesting approach for analysing complex cognitive constructs and provide a valuable starting point for pedagogic research and application.

Replicating Lehr's (2013) methodology, Rojo and Caro (2016) performed an experiment (focusing on translation students (Spanish L1/English as L2) to measure the impact of emotions and certain personality traits on translation performance. To assess trait variation in the participants' psychological resilience, a Spanish version of Block and Kremen's (1996) ego-resiliency scale (ER89) was first used. Then students were asked to provide a translation of an emotional text, which was rated for accuracy and creativity. After having submitted their translation, they were randomly assigned to a positive or negative feedback group and received false feedback on their performance. Immediately afterwards they were asked to translate a second text, whose ratings for accuracy and creativity were compared to those from their first translation. A self-reporting questionnaire was finally carried out to obtain data on the participants' subjective feelings during experimental time. Results validate evidence from Lehr's work, pointing to a differential impact of emotions on different facets of translation performance and suggesting that different emotions may activate different processing styles. Although no statistically significant effect is found for resilient personality traits, data suggests they may also play a role in guiding translational behaviour.

Cifuentes-Férez and Cutillas (2018) investigated how affect-related traits, such as self-esteem and creativity, may influence cognitive processes and have an effect on task performance. Linking self-esteem to emotions pertaining to how people feel about themselves, and creativity to positive affect, this study finds that

professionals' creative profile is a good predictor of creativity in TTs and it also suggests that creative intelligence scores could be used as predictors of translation quality. As far as the role of self-esteem is concerned, professionals' global self-esteem is not related to their creative intelligence, for people with low and high self-esteem might have either low or high creative personalities. Global self-esteem, however, can be used as a predictor for mistakes in the TT. While high self-esteem professionals may be more prone to be less accurate regarding transference of the ST pragmatic function as well as TT correctness and reading easiness, low self-esteem professionals seem more likely to produce more accurate TTs in terms of those dimensions.

In her review of the state of the art of translation process research, Rojo (2017) summarizes the following findings of various scholars on the effect of emotions in translation performance:

- source text emotions may at least influence facets of verbal creativity in translation,
- the emotional valence of words and expressions may exert a significant influence on the time translators need to find a suitable translation,
- different-valence emotions may have a differential impact on the translation process, with positive emotions enhancing creativity and negative emotions improving meaning accuracy,
- more errors are generally produced under high time-pressure conditions, there is also evidence suggesting that working with sufficient time is not always a guarantee of error avoidance,
- personality traits (intuition, emotional intelligence, or resilience) and professional expertise (in the form of metacognitive abilities or extrinsic recognition) may play a crucial role in regulating emotion and predicting translation and interpreting performance.

This research paper is an attempt to investigate the role of emotions in translation performance by using Rojo and Caro's methodology (2016). It makes a terminological distinction between emotion and affect, taking the former in the sense of Strickland (2001) as "reaction, both psychological and physical, subjectively experienced as strong feelings, many of which prepare the body for immediate action", while the latter is understood as "a psychological term for an observable expression of emotion".

3. The Study

Following Rojo López and Ramos Caro's method (2016), the study is based on an experiment designed to measure the impact of emotional and certain personality factors on translation performance.

3.1 Research questions and hypotheses

As this study broadly replicates Rojo López and Ramos Caro's study (2016: 113-114), it poses the same research questions and hypotheses on the role of emotions and some personality traits on the performance of translation tasks among students of translation:

- i. Do induced affect states, both positive and negative, have an impact on different aspects of translation performance, such as creativity vs. accuracy?
- ii. Do translations produced under different valence affect states of bogus feedback (positive or negative) receive different scores for overall performance?
- iii. Can the affect state induced by bogus feedback be regulated by the participants' personality in terms of their level of resiliency?

These research questions may be reformulated in the following three hypotheses:

- i. 1. A positive affect state induced by bogus feedback will increase creativity ratings in translation while negative affect states will increase accuracy ratings.
- ii. 2. Translations elaborated under a positive affect state induced by bogus feedback will be rated higher for overall performance than those produced under the effect of a negative affect state.
- iii. 3. Participants with a higher level of resiliency will regulate the effects of negative affect more effectively than those with a lower level of resiliency. Consequently, translations produced by the former will exhibit smaller differences between performance scores under a positive or a negative affect state.

3.2 Participants

Students of translation in their third and fourth year at the Department of Translation and Interpreting at Blaze Koneski Faculty of Philology, Ss Cyril and Methodius University – Skopje, took part in the experiment. They were informed and invited to take part in a series of tasks that their teachers would carry out during the semester that simulated real-life experiences of translators' work. Those who decided to volunteer signed an informed consent form and were aware that they could withdraw from the experiment at any time. To encourage greater participation and to reward the participants, they were informed that 5 points would be given towards their final mark for the course.

A total of 50 students were invited to participate in the experiment. Of them 29 signed the consent form and 26 completed all the steps of the procedure. Their mean age was 21.7 years, with a standard deviation of 0.7 years. 23 participants

were female and only 3 were male (11.5%). The percentage of male students in the group is lower than the figures in the population of professional translators as represented by the membership of the Macedonian Translators and Interpreters Association, where 18.8% are men (MATA source). They were divided into two groups depending on the type of feedback they received: 13 received positive feedback and 13 received negative feedback.

3.3 Design and materials

In order to analyse the impact of the type of feedback on participants' performance on a translation task, the experiment was designed to include a pre- and a post task. Therefore, participants performed two translations: one before receiving feedback and one right after receiving feedback, where the feedback aimed at inducing a particular affect state (a positive or a negative one).

The texts for both translation tasks were selected from University of Bergen's website (<https://www.vaergodmotdegself.no/en>) and contained information and advice on how to be a student during the Coronavirus pandemic (cute animals and study techniques - see Appendix 2). Both texts were comparable in terms of their pragmatic function and the type of creative challenges they presented (they were both informative and included cultural references and complex syntactic constructions which required careful consideration of the source culture and a move away from the source language structure). They were comparable in terms of length too (261 and 265 words, respectively). Their comparability, however, was not supported by the time needed by the participants to complete the translations. Notably, the first text was translated for a mean time of 36.6 minutes (standard deviation 8.22), whereas the second text was translated for a mean time of 46.7 minutes (standard deviation 10.38). The t-test also shows that there is statistically significant difference between the times ($t = 22.73$, $p < 0.0001$). The statistical analysis shows that the second text may have been more difficult than the first one. This is to be born in mind when interpreting the results.

3.4 Procedure

Before the experiment the participants were informed that they would take part in research on the translation process, which might involve them in simulated, unreal situations. They were not informed about the real purpose of the experiment. They were asked to sign an informed consent form, which also informed them that they could withdraw their participation at any point during the experiment.

The experiment was conducted in 5 steps. First, to be able to study the impact of the personality trait of resilience on translation performance, a resiliency test was conducted. The participants completed the English version of the Block and Kramer's (1996: 352) Ego-Resiliency Scale. To distract the participants from the real purpose of the test, in addition to the original 14 statements, 4 distractors were

introduced (see Appendix 1). They were given as much time as they needed to complete the questionnaire.

Second, the students were asked to translate a text to be evaluated by professional translators. Since the experiment was conducted during the lockdown of the COVID-19 pandemic, the task was performed online via Zoom, while the participants worked from their homes. They were provided with the original text in a Google form and were asked to share their screen while translating. This setting is partially artificial and has low ecological validity. However, this was necessary as the experiment included providing feedback immediately prior to performing the second translation. The setting was still very similar to how professional freelance translators work as students were in the comfort of their homes working on their own desks and computers. They were also allowed to use any online or hard copy resources they liked (except for Google Translate and any similar machine translation engines). They were given approximately 1 hour to complete the first translation and all of them completed it within the time frame given. To be able to compare the times, they were asked to write the exact time when they started and finished their translations.

Third, the first translation was evaluated and the participants were divided into three categories depending on their performance: high, medium and low performance. In addition, the participants were divided into three groups depending on their resiliency score (high, medium and low). Then, all participants with high and low resiliency score were placed in one group (Group B) which was supposed to receive negative feedback. This was done in order to test if their different resilience level would have a different impact on their translation performance. The other group (Group A) consisted of participants with medium resiliency score only. This group would receive positive feedback. Both Group A (positive feedback) and Group B (negative feedback) consisted of participants of each of the three categories of translation performance, i.e. students with high, medium and low grades were equally distributed in both groups.

Fourth, the participants were provided individual feedback (positive or negative) and given the second text to translate. The feedback provided was either highly positive (in terms of transfer of meaning, vocabulary, structure, creative solutions, style) or highly negative (in terms of the same aspects of performance). The feedback was general and no specific examples of issues were discussed. The second translation was made under the same conditions as the first one: online, combining Google Forms and Zoom, and using any online or hard copy resources. The time frame was approximately 1 hour as for the first translation. Almost all participants managed to complete the translation within the time limit. Again, for the sake of comparison, the exact starting and ending times for their translations were recorded.

Fifth, to identify how they experienced the feedback and what impact it had on their affect states, after completing the second translation, participants were asked to rate how good or bad they felt when they were informed about their performance on the first translation on a scale of 1 to 5, where 1 means "Extremely

bad” and 5 means “Extremely good”. Half provided the rating of 5, whereas the other half provided ratings lower than 3. The mean rate was 3.62.

Finally, the second translation was evaluated. The evaluation was carried out by two examiners, teachers at the Department of Translation and Interpreting at Ss Cyril and Methodius University in Skopje. Both of them had taught the same course (Translation from English into Macedonian) and agreed on the evaluation method before. The examiners rated the translations for the different aspects specified in the evaluation sheet (see Appendix 3). The final mark was the mean score of the two evaluations.

3.5 Rating method

The correction sheet used for the evaluation of translations was the one developed by Rojo López and Ramos Caro (2016: 129). We measured overall performance, creativity and accuracy operationalized in measurable parameters for three main aspects of translation: transfer of meaning (*meaning*), transfer of pragmatic function (*pragmatics*) and correctness and fluidity (*style*). Creativity was measured by awarding points for flexibility, novelty and fluidity, whereas accuracy was measured by subtracting points for loss of meaning (false, opposite or incoherent meaning; unnecessary omissions or additions), loss of pragmatic function (cultural reference, implied meaning), as well as grammar, cohesion, orthographic errors and hindrance for reading easiness. The points awarded to or subtracted from the overall mark of 30 points were within the range (-0.25 to +1) depending on the type of solution or error and their relative weight on the whole translation.

3.6 Statistical tests

To analyze the variables, descriptive statistics was used providing information on percentages, mean values and standard deviations. Comparison of means was carried out using the paired sample T-test with the normality condition based on the Shapiro-Wilk Test. ANOVA was used for more than two groups. The practical significance of results was calculated using Cohen’s effect size (d), where values of 0.2, 0.5 and 0.8 correspond to a typically low, medium and high effect, respectively.

4. Results

4.1 Effect on creativity after positive feedback

According to our first hypothesis a positive affect state induced by positive feedback would increase creativity ratings in translations. To test this hypothesis, we compared the mean ratings for creativity before and after the intervention.

Table 1 shows the descriptive statistics for the different parameters of creativity before and after positive feedback. The ratings for the first condition show normal distribution, whereas the ratings for the second condition show normal distribution for pragmatics only ($p > 0.05$).

Table 1: Descriptive statistics and normality test for creativity parameters after positive feedback

Creativity	Pre				Post			
	Min.	Max.	Mean (SD)	S-W*	Min.	Max.	Mean (SD)	S-W*
Meaning	31	33.25	31.94 (0.63)	0.662	32.25	34.75	33 (0.73)	0.010
Pragmatics	30.25	31.75	30.85 (0.48)	0.255	30.25	31.50	30.69 (0.41)	0.056
Style	33	35.75	33.98 (0.86)	0.244	31.75	35.25	34.13 (1.08)	0.006

N=13, *Shapiro-Wilk Normality Test

Table 2 displays the comparison between the pre- and post-test mean ratings for the different creativity parameters after positive feedback. It shows that the difference between the ratings for meaning is statistically significant ($p = 0.004$), whereas the differences between the rating means for pragmatics ($p = 0.421$) and style ($p = 0.603$) are not. To assess the practical significance of the results for meaning, the value of the typical mean difference ($d = -0.98$) revealed that the effect size of the increase in the rating for this parameter is small and therefore irrelevant. These results do not confirm our first hypothesis: they reveal that there is an irrelevant encouraging effect of positive affect on the meaning parameter, whereas there is no effect on pragmatics and style.

Table 2: Comparison between the mean ratings for the different creativity parameters after positive feedback

Creativity parameters	Paired sample T-test					
	Mean diff.	SE	IC _{95%} difference	t ₁₃	P	d
Meaning	1.06	0.30	(-1.7; -0.4)	-3.513	0.004*	-0.98
Pragmatics	-0.16	0.18	(-0.3; 0.6)	0.833	0.421	0.23
Style	0.15	0.29	(-0.8; 0.5)	-0.534	0.603	-0.15

* $p < 0.05$; d: Cohen's effect size

Figure 1 illustrates the differences found between pre- and post-test ratings for the different creativity parameters after positive feedback.

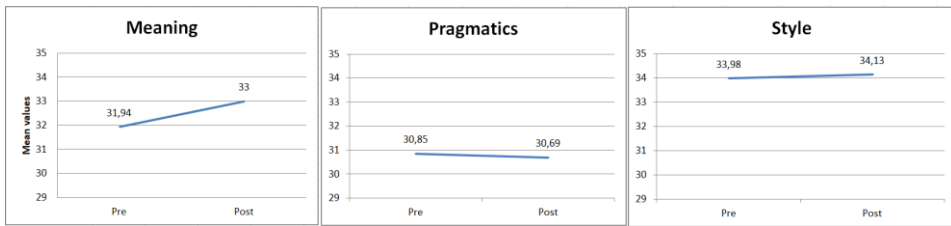


Figure 1: Comparison of pre-post mean ratings for the different creativity parameters

4.3 Effect on accuracy after negative feedback

Based on the first hypothesis, it is also predicted that a negative affect state induced by negative feedback would increase accuracy ratings in translations. To test this hypothesis, the mean ratings for accuracy were compared in the pre- and post-intervention conditions.

Table 3 shows the descriptive statistics for the different parameters of accuracy before and after negative feedback. The ratings for the first condition show normal distribution for meaning and pragmatics, whereas the ratings for the second condition show normal distribution for meaning only ($p > 0.05$).

Table 3: Descriptive statistics and normality test for accuracy parameters after negative feedback

Accuracy	Pre				Post			
	Min.	Max.	Mean (SD)	S-W*	Min.	Max.	Mean (SD)	S-W*
Meaning	25.25	30	27.94 (1.39)	0.891	23.25	28	26.46 (1.54)	0.083
Pragmatics	27	30	28.35 (0.94)	0.620	27.25	29.5	28.69 (0.73)	0.020
Style	13	26.5	23.16 (3.57)	0.005	11.5	25.5	21.3 (3.81)	0.035

N=13, *Shapiro-Wilk Normality Test

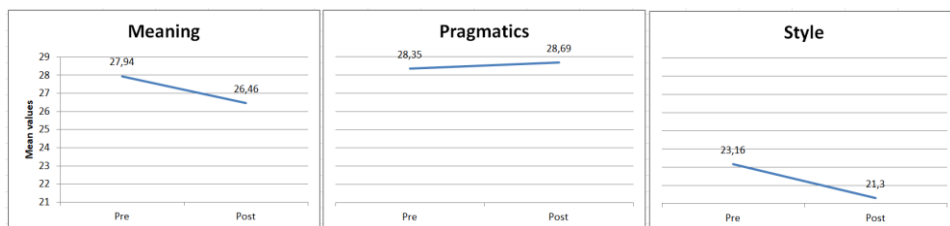
Table 4 shows that the difference for meaning and style ratings is statistically significant ($p = 0.002$ and $p = 0.006$, respectively), with a decrease of 1.48 and 1.86 points in the post-test results in comparison with the pre-test ones. The effect size for both parameters ($d = 1.1$ and $d = 0.9$, respectively) indicates that the reduction in the mean ratings for meaning and style is large. No statistically significant differences were found for the pragmatics parameter.

Table 4: Comparison between the mean ratings for the different accuracy parameters after negative feedback

Accuracy parameters	Paired sample T-test					
	Mean diff.	SE	IC _{95%} difference	t ₁₃	P	d
Meaning	-1.48	0.36	(0.69; 2.27)	4.079	0.002*	1.1
Pragmatics	0.34	0.32	(1.05; 0.36)	-1.066	0.307	-0.29
Style	-1.86	0.54	(0.63; 2.98)	3.349	0.006*	0.9

* $p < 0.05$; d: Cohen's effect size

These results are illustrated in Figure 2 below.

**Figure 2:** Comparison of pre-post mean ratings for the different accuracy parameters

With regard to accuracy, these results only marginally confirm our initial hypothesis. The results show that the ratings for both meaning and style decrease after negative feedback. This result contradicts Rojo López and Ramos Caro's findings (2016: 120-121), who find that negative affect increases accuracy in meaning. As for the other parameters, they find that negative feedback has a detrimental effect on accuracy. They explain their findings by the nature of feedback provided or the task itself. In our case, accuracy increases insignificantly in the pragmatics parameter only. The nature of the feedback provided may explain this result as the feedback may have been too negative.

4.5 Overall performance depending on type of feedback

The second hypothesis predicted that translations done under a positive affect state induced by positive feedback would be rated higher for overall performance than those produced under a negative affect state induced by negative feedback.

Data shows that after positive feedback the mean ratings for creativity improve by 1 point and the mean ratings for accuracy decrease by 1.6 points, whereas after negative feedback the mean ratings for creativity improve by 1.8 points and the

mean ratings for accuracy decrease by 2.9 points. The independent sample t-test shows there is no statistically significant difference between the post-test ratings for creativity for participants under positive affect and those under negative affect ($t_{23.359} = 0.313$, $p = 0.254$), whereas the difference between the post-test ratings for accuracy between the positive and negative feedback group was statistically significant ($t_{16.850} = 1.708$; $p < 0.05$). With regard to overall performance after feedback, those under positive affect state caused by positive feedback are rated higher (with a mean rating of 26.75 points) than those under negative affect state caused by negative feedback (with a mean rating of 24.08 points). The mean difference is 2.67 points and this difference is marginally statistically significant ($t_{18.657} = 1.344$, $p = 0.056$).

4.6 The effect of resilience

According to the third hypothesis, participants with higher resilience levels would regulate the effects of negative affect more effectively than those with lower levels of resiliency. Hence, translations produced by the former would exhibit smaller differences between performance scores under a positive or a negative affect state.

Table 5 displays the descriptive statistics for the variables creativity and accuracy obtained on three different levels of resiliency (low, medium and high) under the negative affect condition. To assign participants a given resilience level (low, medium or high), we calculated the mean and standard deviation of the sample. As our sample was relatively small, only values less or more than one standard deviation away from the mean were classified as high or low resilient, respectively. The ratings showed a normal distribution ($p > .05$), which was also under the homogeneity of variances assumption.

Table 5: Descriptive statistics on ratings for creativity and accuracy by resilience levels. Normality and Homogeneity Tests

Variable	Resilience level (N)	Min.	Max.	Mean	SD	Shapiro-Wilk Normality Test (p)	Levene's Homogeneity Test (p)
Creativity	Low (3)	35.5	38.5	36.67	1.61	0.298	0.325
	Medium (6)	34.75	40	37.00	1.96	0.659	
	High (4)	38.25	39.75	39.25	0.7	0.161	
Accuracy	Low (3)	12.63	19.38	14.96	3.87	0.062	0.355
	Medium (6)	5	22	15.10	5.77	0.495	
	High (4)	17.5	22.5	19.63	2.15	0.775	

This data confirms that the more resilient participants are, the better they perform. Notably, data shows that under negative affect high-resilient participants tend to

perform better than medium and low resilient participants. Thus, on creativity they have a mean rating of 39.25, as opposed to 37 and 36.67 of medium and low resilient participants, respectively. Also, on accuracy their mean rating is 19.63, compared to 15.10 and 14.96 of medium and low resilient participants, respectively. However, the ANOVA revealed no statistically significant differences for the variables creativity and accuracy between different resilience levels (Creativity [$F_{2,10} = 3.036$; $p = 0.093$], Accuracy [$F_{2,10} = 1.380$; $p = 0.296$]).

5. Discussion and conclusion

Emotions are part of what makes us human and affect our lives in numerous ways. They particularly affect how we learn and work. Research in human and organisational psychology has shown that events in our environment affect our emotional state, which in turn has an impact on our performance and productivity. Translation is no exception. The purpose of this paper was to add to the current body of research on emotions in the translation process. More specifically, this paper set out to investigate the impact of emotions on translation performance in an experiment design among Macedonian students of translation.

With regard to the overarching question of how the affect state impacts translation performance, our results indicate that positive feedback has a more encouraging effect on translation performance as opposed to negative feedback. This result proved to be marginally statistically significant and in line with Rojo López and Ramos Caro's findings (2016).

When it comes to the specific effects of positive and negative feedback on different aspects of translation performance, the results are somewhat less conclusive. We did not find statistical confirmation of the encouraging effect of positive affect on creativity. More specifically, creativity has increased insignificantly for the meaning and style parameters and it has decreased insignificantly for the pragmatics parameter. Overall, although results are not statistically significant, it seems there is a tendency for positive feedback to have a positive impact on creativity. As for the effects of negative feedback on accuracy, the results are also not straightforward. We found statistical confirmation of the negative impact of negative feedback on the meaning and style parameters, and an insignificant positive impact on the pragmatics parameter. These results show a tendency for negative feedback to have a negative impact on accuracy, which is contrary to Rojo López and Ramos Caro's findings (2016). Rather than showing that positive and negative emotions may trigger qualitatively different processing styles, as previous studies have pointed out, these results indicate that positive and negative emotions affect translation performance positively and negatively respectively.

Finally, regarding the effect of resilience on regulating negative emotions, like Rojo López and Ramos Caro (2016), we did not find statistically significant result. Still, there was a tendency for high-resilient students to perform better than

medium and low resilient students, which points to the potential role of personality traits on regulating emotions and performance (*ibid.*).

Some aspects of our experiment design may partly explain these results, particularly that they seem in part contradictory to previous findings. The different impact of positive and negative affect could be due to the nature of the feedback provided. Notably, the feedback provided may have been extreme in that the positive feedback was too positive and the negative feedback was too negative. The feedback may also have been too general with no attention to any details as to the different aspects of translation performance. The number of participants may have been small, especially their subsequent classification into smaller groups, which may have had a negative impact on the statistical power of the sample. The choice of translation task may also play a role in obtaining these results, especially in view of the results on the pragmatics parameter which are opposite to the overall tendency for the two aspects of performance analysed (creativity and accuracy). The texts selected for both translation tasks may have lacked sufficient pragmatic elements to be able to make a more reliable assessment of how their pragmatic function was conveyed in the translation. Finally, the complex rating method may have made the assessment task highly difficult, particularly because many different elements were assessed, which were later merged into wider categories for the purposes of statistical analysis. This may have had an impact on the results. Based on these observations, we suggest that future research should make methodological changes in terms of a higher number of participants which would allow for larger groups at the different resilience levels, a simpler and standardised rating method and carefully selected and more comparable texts to be used for the translations tasks.

Notwithstanding these methodological weaknesses, our results have implications for both teaching and professional translation practice as both student and professional translators are constantly exposed to feedback by either teachers or their colleagues or clients, respectively. Knowledge of how emotions induced by feedback affect translation performance is useful for parties at both ends of the communication channel. As providers of feedback, we need to be aware of the tone and content of our feedback as well as of how the emotional reaction triggered by it affects different personality profiles. As receivers of feedback, we also need to be aware of these factors and how they affect our task performance. Whereas positive feedback may encourage creative approaches to translation, negative feedback may reduce accuracy, particularly among low resilient translators. With this knowledge in mind, we should be more aware both as teachers and employers about how words and events at work have an influence on translators' choices, decisions and performance. This paper has made a small step in that direction. Further research is needed, however, to make definitive conclusions.

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Appendix 1

Block and Kramer's (1996: 352) Ego-Resiliency Scale with distractors marked with *

1. I am generous with my friends.
2. I quickly get over and recover from being startled.
3. I enjoy dealing with new and unusual situations.
4. I usually succeed in making a favourable impression on people.
5. I enjoy trying new foods I have never tasted before.
6. I am regarded as a very energetic person.
7. I like to take different paths to familiar places.
8. I am cleverer than most of my peers.*
9. I am more curious than most people.
10. Most of the people I meet are likeable.
11. I usually think carefully about something before acting.
12. Most of the people I meet are boring.*
13. I like to do new and different things.
14. My daily life is full of things that keep me interested.
15. I like to go on nature walks.*
16. I would be willing to describe myself as a pretty "strong" personality.
17. I get angry rather quickly.*
18. I get over my anger at someone reasonably quickly..

Appendix 2

Text 1 (Pre-test) - <https://www.vaergodmotdegselev.no/en/cute-animals>

What is it about cute animals?

Both through research and therapeutic practice, it's well established that contact with animals has a relaxing and stress-relieving effect. However, you don't have to be in therapy to get the stress-relieving benefits of spending time with animals. If you dread going to the dentist or are stressed out before exams, close contact with an animal can help you feel more relaxed.

According to researcher Aurora Brønstad from the Department of Clinical Medicine, petting a dog has been proven to lower stress levels and trigger the "happy hormone" oxytocin. There are probably not many students in Bergen who have their own animals, but pretty much everyone has a smartphone or computer. Is it possible to get a similar calming effect by just looking at pictures of animals?

Earlier this year, researchers at the University of Leeds found that students who were about to take their exams and academic staff suffering from stress had a lower pulse and blood pressure after watching a 30-minute video montage of cute animals.

Brønstad is not convinced that only looking at images can have the same positive effects as close contact with animals. But she emphasizes that many people get pleasure from watching cute cats and dogs on Instagram. As a student, you can get quite a bit of entertainment from it if you are the type who loves animals.

This means that pictures and video clips can, at the very least, provide some of the positive effects that researchers have proven to result from contact with live cats and dogs.

Test 2 (Post-test) - <https://www.vaergodmotdegselv.no/en/study-techniques>

The study techniques best suited for so-called deep learning.

How do you tackle online studying?

The coronavirus regulations are causing restrictions on physical meetings and regular study routines. This makes it all the more important to know some good and effective study techniques. According to researcher Lucas Matias Jenó, some techniques are better suited for so-called deep learning. This means a long-lasting change to long-term memory.

You achieve deep learning when you use the retrieval effect. By creating and answering quiz questions, reflecting in study groups, solving problems, or writing short summaries, you relate the new knowledge to what you already know. Only by processing knowledge in this way do we achieve long-term learning.

Repetition and short sessions

Another effective study technique is frequent repetition. This is demonstrated by the Ebbinghaus curve, also known as the forgetting curve. It illustrates that if you don't take notes and revisit the material after a lecture, you will have forgotten 47 percent of what you have learned within 20 minutes. Two weeks on you will have forgotten as much as 94 percent. Repetition is, therefore, an essential part of remembering what you have learned.

Research has also shown that short reading sessions helps you stay focused and lets you work more effectively.

Good habits

How do you avoid procrastinating? Some research suggests that willpower is a limited resource, especially when you do not perceive what you are doing as being self-chosen. Being faced with a lot of choices wears on your self-control. By eliminating distractions and facilitating good habits, you have more energy to study and absorb knowledge.

Appendix 3

Correction sheet

1. Transference of meaning:
 - 1.1 False meaning / Not the same meaning -0.5
 - 1.2 Opposite meaning/Incoherent meaning -1
 - 1.3 Unnecessary omission / addition of meaning -0.5
 - 1.4 Flexibility (creative shifts: abstraction, concretion, modification) +0.5
 - 1.5 Novelty of the solution +1
2. Transference of pragmatic function:
 - 2.1 Loss of cultural reference and/or implied meaning -1
 - 2.2 Loss of pragmatic function (humour, irony) -1
 - 2.3 Flexibility (creative shifts: abstraction, concretion, modification) +0.5
 - 2.4 Novelty of the solution +1
3. Correctness and Fluidity of target text:
 - 3.1 Grammatical errors -1
 - 3.2 Cohesion errors (connectors, loss of repetition) -0.5
 - 3.3 Orthotypographic errors
 - 3.3.1 Typos -0.25
 - 3.3.2 Written accents and punctuation marks -0.5
 - 3.3.3 Serious spelling mistake -1
 - 3.4 Fluidity of target text
 - 3.4.1 Hindrance to reading easiness -0.25
 - 3.4.2 Reading easiness +1