Translation and Anxiety: A Study of Anxiety Effect on Translators’ Performance in Terms of Speed and Accuracy

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Abstract—Translation is a mental process needing sufficient concentration. Anxiety is mental too, but a mental disorder that makes mind busy and can lead to lack of concentration. Since translation requires concentration, the present study investigated the impact of anxiety on translation speed and accuracy. To this purpose, first a Michigan English Proficiency Test was given to one hundred M.A. students of translation to select the most proficient among them. Then, Beck Anxiety Inventory (Beck 1993) was administered to forty participants who were at the same level of language proficiency in order to determine the extent of their anxiety. The selected participants were then asked to translate ten paragraphs about anxiety to estimate their translation accuracy and speed. The analysis of their performance showed that anxiety affects translation accuracy insignificantly, but there is a significant difference between translation speeds of translators with different levels of anxiety.

Index Terms—accuracy, anxiety, mental disorder, performance, translation speed

I. INTRODUCTION

Nowadays, all people around the world have connections with each other, with translation being a bridge among them for communication, because every nation speaks a specific language which is difficult to learn by people of other nations. So, translation is an important tool for communication among people of different languages. Many people try to learn others’ languages, but learning all languages is impossible and, therefore, they hand over the task of mutual communication to mediators, i.e. translators.

Translation is a complex act of communication in which the SL–author, the reader as translator and translator as TL–author and the TL–reader interact. The translator starts from a present frame (the text and its linguistic components); this was produced by an author who drew from his own repertoire of partly prototypical scenes. Based on the frame of the text, the translator-reader builds up his own scenes depending on his own level of experience and his internalized knowledge of the material concerned (Snell-Horby 1988, p. 81).

Feeling of anxiety affects almost everyone’s life during his/her lifetime and may be regarded as a normal part of human life. Anxiety is actually a situation which affects mind and leads to decentralization, and anxious people cannot do their own tasks. In translation, anxious translators cannot focus on the text and cannot present a good translation because decentralization does not allow them to get the concept of the texts to be translated. This study tries to find the relation among anxiety, translation speed and translation accuracy to find out if anxiety affect accuracy and speed of translation in a significant way.

II. BACKGROUND OF THE STUDY

Catford (1965) believes that translation is the replacement of the source language textual elements by the target language textual elements. Toury (cited in Lefevere 1992, holds the view that translation is a kind of activity which inevitably involves at least two languages and two cultural traditions whereby an original text is rewritten by the translator into a different language. Newmark (1988) considers translation as a craft in which the translator tries to replace a written massage in one language by the same massage in another language. Munday (2002), as a more recent authority, is of the opinion that in the translation process the translator changes an original written text in original verbal language into a written text in a different verbal language. Among all these, just to mention a few, Toury's definition is a culturally-oriented one focusing on the socio-cultural patterns of source and target languages.

Concerning the translation process, a very general view is that in translation there are two processes involved: the translator analyzes the SL form in order to find out the meaning and second the translator produces or chooses proper
Anxiety is an aversive motivational state that occurs in situations in which level of perceived threat to the individual is high. State anxiety is interactively determined by trait anxiety and by situational stress (Eysenck, 1992). In order to provide an explanation to account for the negative effects of anxiety on cognitive performance, Eysenck et al. (2007) developed ACT based on a large research review, and an update to the previous processing efficiency theory (Eysenck & Calvo, 1992). One of the main predictions associated with both processing efficiency and attentional control theories is that anxiety impairs mostly the central executive. In accordance with Baddeley (1986), the central executive is a central component of the working memory that controls, monitors and updates the working memory functions it has limited capacity and intentional control is its main role.

Anxiety is generally accepted as being an unpleasant emotion. Researchers in mainstream psychology have suggested that anxiety might have at least two distinguishable components: a mental component normally termed cognitive anxiety or worry, and a physiological component normally termed somatic anxiety or physiological arousal (Woodman and Hardy, 2001, p. 290-291). Janelle, Singer, and Williams (1999) have found that anxious subjects often focus on anxiety or worry, and a physiological component normally termed somatic anxiety or physiological arousal (Woodman and Hardy, 2001, p. 290-291). Janelle, Singer, and Williams (1999) have found that anxious subjects often focus on irrelevant internal and external information.

According to Drawish’s model (2003), in the translation process, the translator possesses two sets of parallel linguistic and cultural repertoires. Each repertoire has a subset of components and units with codes and flags embedded in each one of them. When the translation analysis begins, the two parallel repertoires move constantly to match and replace lexis, grammar, stylistics, phonology, cultural and situational equivalents and to give universal concepts language properties. In the transfer of text from the source language to the target language, all (or nearly all) the attributes of text/discourse travel from one repertoire to the other through the Concept "lens", which is also in constant focusing converting concepts invoked by the flagged attributes in context in the source language repertoire through the activation of matching attributes in the target language. This binary action-reflex mechanism results in the translation product.

Based on what was stated above, the present study aimed at investigating the effects of the psychological process on translation. Actually, the researchers investigated the impact of anxiety, which is a psychological process, on the translation in terms of speed and accuracy. Thus, the following research question was addressed:

Does anxiety affect translators' performance in terms of accuracy and speed?

III. METHODOLOGY

A. Instruments

The following three main instruments were used in this study:

1) The Michigan English Test (MET)- an examination for test takers who wish to evaluate their general English language proficiency in social, educational, and workplace contexts. Listening recordings and reading passages reflect every day, authentic interaction in an American-English linguistic environment (http://www.newamericacollege.org/?page_id=964). An MET Speaking Test is also available.

2) Beck Anxiety Inventory (1997). This test includes twenty one common symptoms of anxiety. Each symptom has four options: Not at all, mildly but it didn’t bother me much, moderately - it wasn’t pleasant at times, and severely – it bothered me a lot. The point for the first option is 0, 1 for second, 2 for third and 3 for the last. Each participant should carefully read each item in the list. Indicate how much they have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom (See Appendix A).

3) The last instrument used in this study was a text about anxiety including 10 paragraphs which were selected from a thesis entitled “Intellectual Ability in Children with Anxiety: A Replication and Exploration of the Differences” by
Munson (2004). This was written in The Department of Psychology at University of Florida. Each paragraph comprises five to eight lines (See Appendix B).

B. Participants
The total population for the present study was initially 100 (N = 100) students of English translation studies at Islamic Azad University, Khorasgan branch, and Sheikhbahai non-governmental institute of higher education. Their language proficiency level was obviously not the same. Their age range was between 22 and 51 years. They were all first, second and third semester MA students. To choose homogenous participants from this population, the placement test, i.e. Michigan English Test, was administered and those who scored one standard deviation above the mean were selected (No. 40) to be tested with Beck Anxiety Inventory.

C. Model of the Study

The focus of this study was on the process part of Holmes map (Figure 1. above) and thus, it was process-oriented. So, the data were studied based on Beekman and Callow (1989, p. 34) who defined accuracy as "only as the translator correctly understands the message, can he begin to be faithful", and it is only then that "he can translate clearly & accurately. Based on this, translation accuracy and speed by the researcher, the rater and results of anxiety test were investigated to see if there were any significant relations among anxiety, speed and accuracy of translation.

D. Procedures
The following procedures were put to effect to achieve the purposes of this study: First, a Michigan Test was given to one hundred M.A. translation students to select homogenous ones among them. Then, Beck Anxiety Inventory test was given to 40 selected participants who were at the same level of language proficiency. As a third step, 10 paragraphs about anxiety were given to them for translation. Then, their translations were checked by a rater to investigate the accuracy and time of the translators' renderings. The time suggested by the rater for the translation of all the paragraphs was 121 minutes, based on the level of the participants’ language proficiency. Finally, based on the requirements of the chosen model stated above, translation accuracy as well as time span (i.e. speed) were examined to show the possible relation among anxiety, speed and accuracy of translation?

IV. RESULTS

The total results obtained from the analysis of the data are shown in the following table (See the details in the tables of Appendix C) which reveals three conditions of the translators’ anxiety, i.e. low anxiety (group 1), moderate anxiety (group 2) and high anxiety (group 3). The table contains some examples of translation under specified anxiety conditions. Making decision about translation accuracy was done based on the translation accuracy criteria explained in previous sections.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Translation</th>
<th>Accurate/Inaccurate</th>
<th>Level of participants’ anxiety</th>
<th>Translation Time (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicting evidence has been reported about whether children with anxiety disorders experience negative consequences into adulthood.</td>
<td>شواهد متناقضی در مورد کودکان بسیار مضطرب گزارش شده است که عواقب منفی را در دوران بزرگسالی خواهند داشت.</td>
<td>Inaccurate</td>
<td>Low</td>
<td>90</td>
</tr>
<tr>
<td>The relationship between anxiety disorders and memory deficits has also been shown in children.</td>
<td>رابطه ی بین اختلالات اضطراب و کم حافظگی که در کودکان ناشان داده شده است.</td>
<td>Accurate</td>
<td>Moderate</td>
<td>120</td>
</tr>
<tr>
<td>Several explanations for the negative impact of anxiety on working memory have been offered in the literature.</td>
<td>توضیحات متعددی در مورد تأثیر منفی اضطراب بر حافظگی فعال در تحقیقات ییشین ارائه شده است.</td>
<td>Accurate</td>
<td>High</td>
<td>135</td>
</tr>
</tbody>
</table>

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The above table shows some of the translators’ renderings with different levels of anxiety and reveals that translation speed is different among translators with different level of anxiety. Also, as the following figure indicates there is no significant difference in terms of translation accuracy in connection with low, moderate and high levels of anxiety.

![Figure 4.1: Translation Accuracy](image)

Figure 4.1: Translation Accuracy

Figure 4.2 below shows the translation speed of translators with low, moderate and high level of anxiety.

![Figure 4.2: Participants' Translation Speed](image)

Figure 4.2: Participants’ Translation Speed

The analyzed examples of the participants’ translations shown in the tables of this study indicate that anxiety affects translation speed significantly. Actually, 92.59% of translators in group one translated the texts in a shorter time than expected by the rater, and 7.40% of the translators translated the texts within the determined time. In the group two, 77.77% of translators translated the texts in the specified time, 11.11% of translators translated texts in a time quite different from the determined time. Among the translators in the third group, 100% of translators translated the texts in a shorter time than the specified time. All this shows the significant impact of anxiety on translation speed.

V. CONCLUDING REMARKS

Based on the results of the study and according to Beekman and Callow's (1989) definition of accuracy as well as the decisions of the rater, it was revealed that more than 90% of all three groups (low, moderate and high level anxious participants) translated the texts accurately. Actually, most of the translators translated lexical and syntactic items of the texts accurately, while false translations were also seen in all three groups. This shows that anxiety did not affect translation accuracy to a significant extent, because even the translators with low levels of anxiety translated the mentioned features in some cases flatly.

As for translation time or speed of translation, as it is seen in the charts, the translators with low level of anxiety translated the texts in a shorter time than the determined time, moderate anxious translators translated the texts within the determined time and translators with high anxiety translated the texts in a longer time than expected. It indicates clearly that anxiety affects translation speed, i.e. anxious people concentrate on the text with difficulty and thus, they do their work in a longer time than other translators. As a matter of fact, minds of anxious translators are too busy; they think about their own problems and search for solutions. This leads to less concentration on the task of translation, which in turn, results in their incapability to get the concept of the texts or words in the first reading and, therefore, they have to read the texts more and more, which naturally takes more time.

APPENDIX A

Beck Anxiety Inventory

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.
Scoring - Sum each column. Then sum the column totals to achieve a grand score. Write that score here ________.

APPENDIX B

Table 4.2. Translations of the Translators with Low Anxiety

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Translation</th>
<th>Accurate/Inaccurate</th>
<th>Translation Time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Anxiety is a common experience for the average person. Most children, for example, experience at least some developmentally appropriate fears and worries.</td>
<td>انعکاس تجربه ای شایع میان اکثر افراد است. برای مثال، بیشتر کودکان ترس ها و نگرانی های مناسبی دارند که رشد را تجربه می کنند.</td>
<td>Accurate</td>
<td>100</td>
</tr>
<tr>
<td>2  Several studies have demonstrated that children with anxiety disorders have social problems, including social incompetence, low self-worth, and higher levels of peer victimization.</td>
<td>چندین پژوهش نشان داده است که کودکانی که اختلالات اضطرابی دارند با مشکلات اجتماعی از جمله ناتوانی های اجتماعی، عزت به نفس پایین و شکست سبب می شوند.</td>
<td>Accurate</td>
<td>110</td>
</tr>
<tr>
<td>3  Conflicting evidence has been reported about whether children with anxiety disorders experience negative consequences into adulthood.</td>
<td>شواهد متناقضی در مورد کودکانی که اختلالات اضطرابی دارند عواقب بدی را در دوران بزرگسالی تجربه می کنند.</td>
<td>Inaccurate (syntactic features)</td>
<td>90</td>
</tr>
<tr>
<td>4  Baddeley (2000) added a fourth component, the episodic buffer, to his model to better explain the complexities of working memory.</td>
<td>بدلی (9731) مولفه چهارمی، میانگیر دوره ای، را به مدلش افزودد تا بهتر پیچیده های حافظه فعال را توضیح دهد.</td>
<td>Accurate</td>
<td>100</td>
</tr>
<tr>
<td>5  The relationship between anxiety disorders and memory deficits has also been shown in children.</td>
<td>رابطه بین اختلالات اضطراب و کم حافظگی هم در کودکان نشان داده شده است.</td>
<td>Accurate</td>
<td>110</td>
</tr>
<tr>
<td>6  Several explanations for the negative impact of anxiety on working memory have been offered in the literature.</td>
<td>توضیحاتی برای مضرات اختلالات اضطراب بر حافظه فعال در ادبیات لازم به ذکر است.</td>
<td>Accurate</td>
<td>115</td>
</tr>
<tr>
<td>7  Children were eligible for inclusion if they were between the ages of 9 and 16 years (ages based on requirements of measures listed above) and did not meet exclusion criteria.</td>
<td>کودکانی که در سنی بین 9 و 16 سال باشند که اساساً مشابه سنی در نظر گرفته شدند و اصولاً متضمن حذف نشده بودند.</td>
<td>Accurate</td>
<td>115</td>
</tr>
<tr>
<td>8  Analyses were conducted to determine whether statistically significant differences between the groups existed on the basis of age, gender, or recruitment source.</td>
<td>تحلیل آماری که میزان اختلافات آماری بین گروه های مختلف بر اساس سن، جنسیت یا منابع اخذ داده بود.</td>
<td>Accurate</td>
<td>95</td>
</tr>
<tr>
<td>9  Analyses revealed no significant differences between the dependent variables and the demographic variables of age, gender, ethnicity, or recruitment source.</td>
<td>بررسی نشان داد که نهایتاً اختلافاتی بین متغیرهای اساسی و متغیرهای اخراجی مربوط به ویژگی‌های جنسیتی، قومیت یا منابع اخذ ناشان داده.</td>
<td>Accurate</td>
<td>100</td>
</tr>
<tr>
<td>10 There are several possible explanations to remedy the discrepancy between the findings of the current study and those of previous studies.</td>
<td>توضیحاتی حساسیت باعث جهت اختلاف بین نتایج این مطالعه و مطالعات قبلی می‌شود.</td>
<td>Accurate</td>
<td>90</td>
</tr>
</tbody>
</table>
Several studies have demonstrated that children with anxiety disorders have social problems, including social incompetence, low self-worth, and higher levels of peer victimization.

Analyses were conducted to determine whether children with anxiety disorders experience negative consequences into adulthood.

Several explanations for the negative impact of anxiety on working memory have been offered in the literature.

Anxiety is a common experience for the average person. Most children, for example, experience at least some developmentally appropriate fears and worries.

Several studies have demonstrated that children with anxiety disorders have social problems, including social incompetence, low self-worth, and higher levels of peer victimization.

Conflicting evidence has been reported about whether children with anxiety disorders experience negative consequences into adulthood.

Several explanations for the negative impact of anxiety on working memory have been offered in the literature.

Children were eligible for inclusion if they were between the ages of 9 and 16 years (ages based on requirements of measures listed above) and did not meet exclusion criteria.
REFERENCES


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