A Comparative Study of Persian Translated and Non-Translated Political Texts: Focus on Simplification Hypothesis

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Abstract

This study sought to examine simplification hypothesis, a translation universal, in Persian translated political texts and their comparable Persian non-translated political texts in terms of lexical density, type-token ratio and average sentence length. To do so, 300 paragraphs were randomly selected from three Persian political translated and three Persian political non-translated books. Then, the lexical density, type-token ratio and average sentence length of each paragraph were calculated through AntConc 3.2.0w software. After that, the *t*-test procedure was performed to see if the observed differences between the two corpora were statistically significant. The results of the data analysis showed that the lexical density and type-token ratio of the political translated texts were higher than those of the political non-translated texts but the average sentence length of the political translated texts was lower than that of the political non-translated texts. The overall findings of this study challenge and limit the validity of simplification hypothesis in that lexical density and type-token ratio of translated political texts may not be lower than those of non-translated political texts.

Keywords: average sentence length, lexical density, translated texts, type-token ratio, simplification hypothesis, translation universals.

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Introduction

Ever since researchers in Translation Studies shifted their attention from translatability and equivalence to product-oriented studies (Baker, 1995, 1996; Magalhaes & Batista, 2002; Toury, 1995), identifying the defining and distinctive features of translated texts has been in vogue (Esfandiari, Mahadi, Jamshid, & Rahimi, 2012; Laviosa, 1998; Laviosa-Braithwaite, 1997; Malmkjaer, 1997; Olohan & Baker, 2000; Tabibi, 2012; Xiao & Yue, 2009). Toury (1995), a pioneer in this area, states the law of growing standardization and the law of interference. He claimed that the target texts are linguistically less varied than the source texts and source text lexis and syntax has a great influence on the target text. In fact, the source language impact on the translated texts is so strong that it makes the translated texts different from the target language texts (Hartmann, 1985; Lavoisa, 1997). Thus, the creation of unusual patterns in the TT is the consequence (Esfandiari, et al., 2012; Hatim & Munday, 2004). Therefore, these two laws of translation show that translated texts generally have special characteristics which are known as "Universals of Translation".

According to Laviosa (2002), translations universals are "linguistic features which typically occur in translated texts and are thought to be the almost inevitable by-products of the process of mediation between two languages" (p. 43). Prior to this characterization, Baker (1996) had proposed four translation universals in terms of universal tendencies; (a) explicitation as "an overall tendency to spell things out rather than leave them implicit" (p.180); (b) normalization as "tendency to exaggerate features of the target language and to conform to its typical patterns" (p.183); (c) leveling out as "the tendency of translated text to gravitate towards the centre of a continuum" (p.184); and (d) simplification as "the tendency to simplify the language used in translation" (p.181).

The related literature reveals that simplification has received greater attention for the last two decades (Esfandiari, et al., 2012; Laviosa, 1998; Laviosa-Braithwaite, 1997; Magalhaes & Batista, 2002; Malmkjaer, 1997; Olohan & Baker, 2000; Tabibi, 2012). Generally speaking, simplification has meant to be realized in translated texts by simpler lexical, syntactic, and stylistic feature (Blum-Kulka & Levenston, 1983). However, lexical density, type-token ratio and average sentence length have been proposed as the standards of measuring the degree of simplicity or complexity of translated and non-translated texts (Magalhaes & Batista, 2002; Laviosa-Braithwaite, 1997; Tabibi, 2012; Xiao & Yue, 2009). To date, these standards have made the hypothesis more amenable to test and generated several research enterprises which attempted to verify the validity of the hypothesis using different corpora. Nonetheless, the research findings have not consistently documented the credibility of simplification hypothesis so far. In the pro-simplification camp (Esfandiari, et al., 2012; Malmkjaer, 1997; Laviosa-Braithwaite, 1997; Tabibi, 2012), Laviosa-Braithwaite (1997) compared Translated English Corpus (TEC)

and non-translated English Corpus (NON-TEC) in terms of lexical density, average sentence length and lexical ratio. She found syntactic simplification of translated texts which was brought about by the use of such present indicative of verbs as "to be" and "to have" more frequently occurred in Translated English Corpus (TEC) than non-translated English Corpus (NON-TEC). In the same camp and in journalistic genre, Laviosa-Braithwaite (1996), through using the same simplification indices, examined newspaper sub-corpora of Translational English Corpus (TEC) and British National Corpus (BNC). She found that the lexical density of *The Guardian* translated text is lower than the lexical density of English non-translated texts in the same newspaper. Also she found that the sentence length of *The Guardian* translated text is lower than their comparable original non-translated texts in the same newspaper. Analyzing the type token ratio of the translated text also showed that it is lower than the type token ratio of non-translated texts, suggesting that simplification hypothesis is backed up by translations in journalism.

Malmkjaer's (1997) conducted a contrastive analysis of English translated and non-translated texts in terms of the frequency and distribution of punctuation marks. He concluded that the more frequent use of punctuations in translated texts results in shorter and, therefore, simpler sentences. More recently, Tabibi (2012) tested simplification hypothesis using a corpus of translated and non-translated technical texts. The findings lent support to the credibility of the hypothesis in terms of the three simplification indices namely, lexical density, type-token ratio, and average sentence length.

On the other hand, Laviosa (1998), in the anti-simplification camp, used a corpus consisting of a sub-section of the English Comparable Corpus (ECC). It comprises two collections of narrative prose in English: one is made up of translations from a variety of source languages; the other includes original English texts produced during a similar time span. She found four global patterns of lexical use and one pattern in syntactic aspect of translated narrative texts. As to the lexical density, translated texts have a relatively lower percentage of content words versus grammatical words, suggesting the lower lexical density of translated texts. However, regarding the syntactic aspect, the mean sentence length is significantly higher in translated narrative texts compared to the originals, ruling out the average sentence length index of simplification hypothesis. In the same consonance, Xiao and Yue (2009) examined translated Chinese fiction and native Chinese fiction in terms of lexical and syntactic indices. They also concluded that translated texts have significantly higher average sentence length than non-translated ones. It follows, then, that mean sentence length might not be a translation universal but rather associated with specific languages or genres (Xiao, 2010). The simplification hypothesis was further challenged from other perspectives, including studies of collocation (Mauranen, 2007) and lexical and syntactic use (Jantunen, 2001, 2004; Magalhaes & Batista, 2002).

Accordingly, as it has already been recognized by Xiao (2010), the simplification hypothesis has not remained unquestioned since being proposed and the early evidences supporting this hypothesis seem to be incoherently and inconsistently documented. Besides, research of this type has so far been mainly limited to English and few other closely related European language corpora. If such features as "simplification" are to be generalized as "translation universals", it seems essential to detect further supporting evidences from non-European languages, those being genetically distinct from English. Furthermore, the unique linguistic features and translation behavior of each specific register have not been touched upon in terms of the role it may play in the generalizability and applicability of the translation universals in different text types.

Closely correlated with translation studies, political discourse analysis (PDA) is a domain having interested more than a few researchers (for a review see Schaffner, 2004). In fact, the strong interfaces between translation studies and PDA have led to the development of a field of inquiry with few formal boundaries influencing almost all aspects of translation enterprises (Tymoczko & Gentzler, 2002). A wrong or inappropriate word choice in the context of politically sensitive issues can lead to great misinterpretations which may consequently result in emerging unintended responsibilities and commitments on the translator's shoulder. In translating political texts the translator must be aware of the reason why a particular word, phrase or structure has been preferred over other alternatives during the translation process. This sensitivity of political texts leads the translator to render the source text with much more attention compared to the other text type, and still untapped in the literature on simplification hypothesis.

All in all, few studies, to the best of the researchers' knowledge, have to date investigated translation universals in Persian political translated and non-translated texts as to examine the translational behavior and to realize the simplification features. Therefore, this study by using comparable corpora containing Persian political translated and Persian political non-translated text may reach new accomplishment about the degree of the universality of simplification as a proposed translation universal feature. Accordingly, this study was launched to see whether Persian translated political texts are different from Persian non-translated political texts in terms of lexical density, sentence length and type token ratio?

Method

Materials

This study used comparable corpora (Baker, 1995) consisting of two collections of separate texts in the same language. One collection consists of

Persian political non-translated texts and the other consists of comparable translated texts. The use of this kind of corpora in contrastive studies in the area of translation studies has extensively been documented (Hansen, 2003) and recognized central to the studies and investigations into the translation universals (Baker, 2001; Kenny, 2004). In designing comparable corpora, the homogeneity of texts is very important; and the two sub-corpora must contain texts of the same language and cover similar genre, register domain and time span and comparable length (Baker, 1996; Pearson 2003).

To collect such corpora for the current study, three Persian political translated books including Buzan and Woever (2003, translated by Ghahremanpour, 2009), Sharp (2002, translated by Jadi, 2002), and Plano and Olton (2008, translated by Raof, 2008), and three Persian political non-translated books including Abolhamd (1997), Ghavam (2010), and Alam (2001) were selected. The selected translated and non-translated books had been translated and written within a thirteen-year interval from 1997 to 2010 and covered general topics about politics. From each of the two groups of books, one hundred and fifty 10-14 line paragraphs were randomly selected for further analyses. The numerical description of the data is shown in the table below:

Table 1. *Numerical Description of the Materials in the Two Corpora*

	Translated political texts	Non-translated political texts
Paragraph	150	150
Mean number of		
Line in each paragraph	12.3	13.6
Words	22140	22440

Data Collection Procedure

To find an answer to the research question, first, the researchers converted the selected paragraphs into electronic machine-readable texts and created electronic corpora in order to provide required conditions for testing simplification hypothesis. In the second step, the computer software named AntConc 3.2.0w was used to calculate the simplification features (i.e. lexical density, type token ratio and average sentence length). This software was developed by Anthony (2003). In the earlier version, it was a simple concordance program. Later, it became an efficient text analysis tool. AntConc 3.2.0w has several pages each of which analyzes texts based on certain purpose. The pages are named as concordance, concordance plot, file view, clusters, word list and key word list. Based on the purposes of the present study, word list page was selected to generate word lists for the files selected. When the user selects a file, a word list is automatically generated based on the criteria shown in the button bar placed at the bottom of the page. These criteria

can be changed to produce word lists which are ordered by frequency or alphabetically and with the frequencies displayed or omitted or presented in inverted order.

The type token ratio of each paragraph was calculated based on the following formula:

*Type token ratio= (number of types / number of tokens) * 100*

In the above formula, types refer to the number of different words in a text and tokens refer to the total number of "running words" in the text. For calculating lexical density, the following formula was used:

*Lexical density= (number of different words (types) / total number of words) *100*

The number of different words (types) was calculated by AntConc 3.2.0w software and the total number of words was calculated by Microsoft Office Word 2007. Therefore, the lexical density of each paragraph was calculated. The sentence length of each paragraph was calculated as follow:

Sentence length= number of words in the text / number of sentences in the text

The number of words was calculated by Microsoft Office Word 2007, but for obtaining the number of sentences in the texts, the researcher counted the number of sentences of each group manually. By dividing number of words in the text by the number of sentences in the text, the average sentence length of each paragraph was calculated.

After calculating these features, the raw data were analyzed through performing *t*-test procedures to see whether the differences between lexical density, type token ratio and average sentence length of the translated and non-translated groups of paragraphs were statistically significant or not. The obtained findings of descriptive and inferential statistics are presented in the following section.

Results

Lexical Density

Table 2 reports on the numerical values obtained from the analysis of the two sets of paragraphs in terms of the indices in descriptive statistics.

Table 2. *Descriptive Statistics for Lexical densities of Translated and Non-Translated Paragraphs*

	paragraph	N	M	SD	Std. Error Mean
LD	translated	150	60.4200	5.87255	.47949
	non-translated	150	56.1267	4.89802	.39992

As presented above, the mean of lexical density of the translated paragraphs was higher than that of non-translated paragraphs (60.4200 and 56.1267, respectively). This was also true for the standard deviations of the two corpora (5.87255 for the translated and 4.89802 for the non-translated texts). To see if the observed difference in lexical density means was statistically significant or not, a *t*-test was conducted. The results of the analysis are presented below in Table 3.

Table 3. *T-test Results for the Lexical Density of the Translated and Non-Translated Texts*

		t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
							Lower	Upper
LD	Equal variances assumed	6.876	298	.000	4.29333	.62438	3.06458	5.52208
	Equal variances not assumed	6.876	288.699	.000	4.29333	.62438	3.06442	5.52225

t-test for Equality of Means

As the table shows, the mean difference between the lexical density of translated and non-translated paragraphs was significant (*t* = 6.876, sig=.000). Therefore, the lexical density of the translated paragraphs was statistically higher than that of the non-translated ones.

Type - Token Ratio

As mentioned earlier, the type-token ratio of each paragraph was calculated by using the number of types and number of tokens which was counted by AntConc 3.2.0w software. The results of the analysis of the data in terms of the indices of descriptive statistics are presented in Table 4 below.

Table 4. *Descriptive Statistics for Type-Token Ratios of Translated and Non-Translated Paragraphs*

Std. Error Mean	Std. Deviation	Mean	N	Paragraph	
.42311	5.18204	63.4533	150	translated	TTR
.41306	5.05894	59.4667	150	non-translated	

As Table 4 indicates, the mean of type-token ratio of the translated paragraphs was higher than that of the non-translated ones (63.4533 and 59.4667, respectively). The results also showed a very small difference between the standard deviations of the two corpora (5.18204 for the translated and 5.05894 for the non-translated paragraphs). To see if the mean difference was statistically significant or not a T-test was performed. The results are presented in Table 5.

Table 5. *T-Test Results for the Type-Token Ratios of the Translated and Non-Translated Texts*

		t	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
							95% Confidence interval of the difference	
TTR	Equal variances assumed	6.742	298	.000	3.98667	.59131	2.82300	5.15033
	Equal variances not assumed	6.742	297.828	.000	3.98667	.59131	2.82300	5.15033

T-Test for Equality of Means

As shown in Table 5, the results of performing the *t*-test shows that the mean difference between the two groups of paragraphs was statistically significant (*t* = 6.742, *p* = .000). This means that the type-token ratio of the translated texts was higher than that of the non-translated ones.

Average Sentence Length

The descriptive statistics and the *t*-test results of the data analysis regarding the third index of the simplification hypothesis are presented in Tables 6 and 7, respectively.

Table 6. *Descriptive Statistics for Average Sentence Length of Translated and Non-Translated Paragraphs*

	paragraph	N	Mean	Std. Deviation	Std. Error Mean
ASL	translated	150	31.1163	6.30355	.51468
	non-translated	150	34.2715	10.31533	.84224

According to the above table, the average sentence length of the translated paragraphs (31.1163) was lower than that of the non-translated ones (34.2715). This is also true for the standard deviations of the two corpora (6.30355 for the translated texts and 10.31533 for the non-translated ones).

Table 7. *T-test Results for the Average Sentence Length of the Translated and Non-translated Texts*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ASL	Equal variances assumed	31.220	.000	-3.197	298	.002	-3.15520	.98705	-5.09768	-1.21272
	Equal variances not assumed			-3.197	246.662	.002	-3.15520	.98705	-5.09933	-1.21107

As presented in Table 7, the mean difference between the two groups of texts was significant (t = -3.197, p = .002). Alternatively stated, the sentences in the translated texts were statistically shorter than those in the non-translated texts.

Discussion

This study investigated the extent to which the proposed simplification hypothesis (Baker, 1996) is valid in case of comparing Persian political translated and non-translated texts. The analysis of the data showed that the lexical density (LD) and type token ratio (TTR) of the translated paragraphs were higher than those of non-translated paragraphs but the average sentence length (ASL) of the translated paragraphs was lower than that of non-translated paragraphs. As to the first feature (LD) the findings of this study lend support to Magalhaes and Batista (2002) who examined the three features in translated and non-translated Brazilian-Portuguese texts and observed that the lexical density of the translated Brazilian-Portuguese texts were higher than that in their original texts. They further noted that the high lexical density of the translated texts may be interpreted as "the tendency to avoid repetition in standard Brazilian-Portuguese writing which is likely to influence Brazilian-Portuguese translators" (p. 99). Applying the same interpretation to the findings of the present study, one may suggest that the higher lexical density in the political translated texts could be due to the translators' avoiding of the lexical repetitions being quite common in English (Zhao, Wenli, & Zhou, 2009). This interpretation has already been documented by Taki, Mirmiran and Vahid (2012) who examined *Waiting for Godot* (Beckett, 1954) and its two Persian translations. Their findings showed that there was a tendency not to transfer original repetitions in English text. This seems to be an attempt on the part of

the translators to avoid repeating the same words or phrases, or to care for other normative considerations like the wish to embellish or amplify the text. They further concluded that the lexical repetitions occurred more frequently in English text than in Persian translated texts. Accordingly, the higher lexical density of the translated political texts in the present study evidences the translators' L1 style transfer while translating into English.

In contrast, as far as the feature of LD is concerned, the present study disconfirms Laviosa-Braithwaite (1996), using newspaper sub-corpora of Translational English Corpus and British National Corpus, Xiao and Yue (2009), using translated and non-translated Chinese fictions, and Tabibi (2012), using Persian technical translated and non-translated texts where they found a lower lexical density for the translated rather than non-translated texts.

Regarding the second simplification feature, the findings of the analysis of type token ratio support Magalhaes and Batista (2002), who observed that the type token ratio in the translated Brazilian-Portuguese texts was higher than that in the comparable original texts. In this regard, Baker (1995) stated that a high type-token ratio might be "interpreted as a consequence of the process of lexical simplification which has been reported as taking place in a variety of mediated communicative activities, including translation" (p.236). Magalhaes and Batista (2002), however, believed that Baker's statement may be questioned since a high type token ratio, revealing the existence of more types in relation to tokens in translated texts as compared to the original, can be interpreted as a "more varied vocabulary being used in translation which in turn should not be interpreted as a consequence of lexical simplification" (p.98). This counterargument can also interpret the high type token ratio of political translated texts in this study. In other words, the high type token ratio in Persian political translated texts could be a result of using more different vocabularies in process of translation.

Nonetheless, in the pro-simplification camp, the lower type token ratio in translated texts has been supported by several studies including Tabibi (2012), and Xiao and Yue (2009). This inconsistency in the findings may be due to either the specific text type (journalistic, technical, and literary) each study selected to examine or the specific procedures used to collect and analyze the data.

As far as the third feature is concerned, the findings of this study showed that the average sentence length in translated texts was lower than that in non-translated texts. This seems to be unanimously agreed upon in the literature, since all the studies working on the translation universals have backed up the lower average sentence length in translated texts (Magalhaes & Batista, 2002; Tabibi, 2012; Xiao & Yue, 2009). Therefore, low average sentence length as a feature of lexical simplification could be taken as evidence of simplification in translation.

Conclusion

Overall, the results obtained using comparable corpora of Persian political texts are compatible with the idea that translated texts have lower average sentence length than non-translated (Baker, 1996; Laviosa-Braithwaite, 1999; Magalhaes & Batista, 2002; Xiao & Yue, 2009). However, the findings do not subscribe to simplification hypothesis in terms of lexical density and type token ratio where the translated texts in this study and not the original texts were more complex. This lends support to Magalhaes and Batista (2002) being in the anti-simplification camp. Moreover, the higher type token ratio in Persian political translated texts can be regarded as a result of using more different vocabularies in process of translation, higher lexical density as a result of avoiding repetition in the translated texts and lower average sentence length as an evidence of simplification in translation.

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