The Difference between Field Independent and Field Dependent Cognitive Styles regarding Translation Quality

Masoud Seid Motahari Central Tehran Branch of Islamic Azad University, Iran

Mehrnoush Norouzi Central Tehran Branch of Islamic Azad University, Iran

Abstract—Cognitive translation studies are one of the assorted fields under research in translation studies trying to deal with the complex cognitive process of translator while rendering. This study investigated the difference between field independent (FI) and field dependent (FD) English translation students in Iran concerning translation of an English literary text. 297 female and male undergraduate students at Islamic Azad University of Tehran participated in this study. The researcher administered two main tests in order, the piloted TOEFL test for homogenizing the participants in terms of English language proficiency and then GEFT test to recognize FI and FD students. Afterwards, FI and FD groups translated the same text. As a result of the statistical analysis it was signified that FI students outperformed the FD ones regarding translation of a literary text.

Index Terms—cognitive style, field dependent, field independent, translation quality assessment

I. INTRODUCTION

"Translation is a multidisciplinary process and that a multidisciplinary viewpoint is necessary for the understanding of the translation process" (Wilson, 2009, p.3).Translation scholars have attempted to understand translation phenomenon from three main perspectives as Bell (1991) classified: translation, translator and translation theory. Garcia-Peinada. et al., (2012) verify new ideas from cognitive positions to deal with translation issues lately. Translation process and product are particularly investigated through Cognitive Translation Studies (Hurtado-Albir & Alves, 2009). Halverson (2010) more specifically proposes that translation scholars use many ways within translation studies` sister disciplines of bilingualism, psychology, cognitive science, etc. to answer questions about translational phenomena. From another perspective, Shreve (2006) describes individual needs to go through a certain organization and range of cognitive resources to translate a text and these multiple translation-relevant cognitive resources are referred to Translation Competence. Nevertheless, what happens in a translator`s mind during translation process has been a drastic question. Robinson (2003) points to translation as an intelligent activity, requiring problem solving. Hurtado-Albir (2001) emphasizes the process of translation as a complex process, which requires processes of problemsolving, decision-making and the use of strategies.

Literary translation is possibly the most significant type of translation as it "is the most demanding type of translation" (Fonseca, cited in Landers, 2001, p.7). However, large number of particular problems may be said include in literary translation comparing to the other types of translation and these problems mainly depend on who is translating and what he/ she knows. Literary translators tackle many problems to perform appropriately. Literary texts contain great number of ambiguities, homonyms and arbitrariness, which are distinct from the texts written in administrative or scientific language (Kolawole & Salawu, 2008).

Munday (2009) highlights two basic phases of comprehension and re-expression in translation process, which are similar to functioning comprehension, and expression processes in monolingual communication. Literary comprehension in translation involves aesthetic experience in addition to cognitive activities (Lopez Folg, 2012).

On the other hand, a successful production in translation does not rise from equivalence finding of individual words or sentences, but is accomplished by means of a mentally formulated image gestalt, which is an integrated entity of both linguistic organization and visualized scene (Jiang, 2008). Robinson (2003) explains the sublimated intelligence that makes it possible for individuals to translate reliably, rapidly, and enjoyably is the product of learning which is to say of experience stored in memory ; and the role of translator's learning style like field independence and field dependence is as dominant as translator's intelligence and memory. Cognitive style "is defined nowadays as one's preferred way to think, perceive and recall, in short, to cognize. It reveals itself, for instance, in problem solving" (Soto-Andrade, 2007, p.3). Brown (2000) states "The way we learn things in genral and the way we attack a problem seem to hing on a rather amophous link between personality and cognition; this link referred to as cognive style" (p,113).

A. Characteristics of FI and FD Individuals

Individuals utilize FI cognitive style are described in terms of some characteristics such as: having tendency to approach things analytically; being likely to either analyze a field when it is organized or impose a structure on a field when it lacks organization of its own; being prone to be impersonal; having tendency to have self-defined goals and reinforcement. On the other hand, those own FD cognitive style: are tend to approach things in a global way; are interested in interacting with other people; prefer to be guided and to rely on external referents (Dufresne et al., 1997; Hsiao, 1997; Kearsley, 2002 cited in Rumetshofer & Wob, 2003). Jonassen (2010) believes analytical reasoning as one of the important cognitive process is most often described as field independence, which described as the extent of which the surrounding perceptual field influences a person's perception of items within it. Non-analytical people (FD) find it difficult to locate the information they are seeking because the surrounding field covers what they are looking for.

Analytical reasoners (FI) are more skillful at disambiguating information from its surrounding field and therefore are better problem solvers because they are better able to isolate task-relevant information. Saville-Troike (2012) adds FD individuals apply deductive process to interpret inputs, use deductive reasoning, and focus on meaning. On the other side, FI perceivers use inductive reasoning and inductive process to interpret inputs besides they focus on form.

B. Translation Competence

A number of researchers have addressed the complex concept of Translation Competence in the field of Translation studies. Ezpeleta (2005) stated:

Reflection on the matter is a relatively recent development and results from empirical studies are still scarce. Some authors talk of translation abilities or skills (Pym, 1992; Hatim and Mason, 1997) while others refer to translation performance (Wilss, 1982). The term competence - translational competence - was first used by Toury (1980, 1995), because of its similarity to Chomsky's (1965) famous distinction between linguistic competence and performance, to explore certain aspects of translation practice. Nord (1991) employs transfer competence and Chesterman (1997) called it translational competence. (cited in Montalt-Ressureccio, et al., 2008, p.136).

Schaffner and Adab (2000) believe that "competence" involves any number of other terms, and it is accepted as "a cover term and summative concept for the overall performance ability which seems so difficult to define" (p.10). Kelly (2005) reviewed the different definitions of translation competence that had been put forward to 2002 and then proposed her own definition. In her opinion:

Translation competence is the macro competence that comprises the different capacities, skills, knowledge, and even attitudes that professional translators possess and which are involved in translation as an expert activity. It can be broken down into the following sub-competencies, which are all necessary for the success of the macro competence (pp.14-15).

Kelly pointed out 7 sub-competencies: communicative and textual, cultural, thematic, professional instrumental, psycho-physiological, interpersonal and strategic which are intimately related to each other and, when developed in a particular way, allow translation competence to be acquired.

Translation competence is defined by Process of Acquisition of Translation Competence and Evaluation (PACTE) team (2003, p.58) as "the underlying system of declarative and predominantly procedural knowledge". According to PACTE (2005) the group proposed a model of translation competence that they considered to be the underlying system of knowledge that is required to be able to translate .In fact, the translation competence model proposed in 2003 is made up of five sub-competencies and psycho-physiological sub-competence that overlap each other as they operate. According to PACTE (2011, pp. 4-5) the model of translation competence includes the following components

- -The bilingual sub-competence
- -The extra-linguistic sub-competence
- Knowledge about translation
- Instrumental sub-competence
- Strategic sub-competence
- Psycho-physiological components

Translation competence like all expert knowledge is applicable to problem solving. The solution of translation problems involves different cognitive operations within the translation process and requires constant decision-making on the part of the translator (PACTE, 2011, pp. 4-5).

Vandepitte (2008, para 21) also adds "in Translation Competence research, translators are seen as individuals going through the translation process and taking many decisions". Williams and Chesterman (2002) explain decisions are taken consciously or unconsciously and they may involve translation strategies.

How to improve students' translation competence is a very frequent subject in translation studies specifically in teaching translation that forms a fruitful field of study. The area includes issues such as translation curriculum design, program implementation, translation assessment or evaluation, translator training institutions and the place of technology in translation training. (Williams and Chesterman 2002 cited in Vanderpitte, 2008, para 22)

Much work in the field of translation studies reported dissatisfaction about the way translation had been treated or not treated at all by translation theorists, linguists and psychologists before, despite the fact that a theory of translation process would draw heavily on psychology and on psychologistics (Bell, 1991). Despite the need of Translation

Competence studies and Empirical Cognitive translation studies raised by translation scholars such as Spanish group of Pericia y Entorno de la Traduccion (PETRA, 2000, cited in Munoz-Martin, 2009), few studies have concerned about the cognitive aspects of literary translation as one of the most challenging genres for translators. For instance, Lopez-Folgado (2012) investigates the nature of literary translation from a theoretical point of view, assuming that translation is a secondary form of human linguistic communication, and that is guided by the cognitive principle of relevance in an article namely "Aspects of Literary Translation." In addition, Rivas-Carmona (2012) approaches the problem of translation sociological and dialectical variation in literary texts posed in an article called "A Pragmatic-Cognitive Approach to Register in Literary Translation." Therefore, the purpose of this study was to answer the following question.

Q: Is there any significant difference between field dependent and field independent cognitive styles regarding translation quality of an English literary text?

To fulfill the objective of the study the following hypothesis was raised:

H0: There is no significant difference between field dependent and field independent cognitive styles regarding translation quality of an English literary text.

II. METHOD

A. Participants

A total of 297 undergraduate students participated in this study and following a quantitative research procedure, the number was reduced to128 later. The range of the participants` age was 20 to 46 and they were selected from among English translation students studying at Central and North Branches of Tehran Islamic Azad University. The participants were both female and male senior students and they had specifically passed Literary Translation course. The logic was to choose the participants who had the least experience in translation practice and acceptable knowledge of translation studies theories as a result of their academic instruction. It is worth mentioning the selected participants also were considered as *advanced students* in cognitive translation studies according to Munoz Martin `s (2009) group categorization of possible participants for translation cognitive studies.

Moreover, three raters contributed to assess and score the translations of participants. The raters were postgraduate students of English translation with bachelor degrees in the same major.

B. Instrumentation

Two sets of tests, an English literary text, and one scale for rating the translated texts were used as instrumentations in this study.

a. Language Proficiency Test

The participants were homogenized by application of English as a Foreign Language Examination Test (commonly branded as TOEFL) which measures individuals` capacity to understand and use English at a college level (Geseo, 2011). The TOFEL (ETS, 1991) test used in this study was a paper-based test and the researcher applied two parts of that named structure and written expression, reading comprehension and vocabulary. The number of multiple-choice items in the original test paper was 40 for structure and 60 for reading comprehension, which was reduced to 39 for structure and 57 for reading comprehension as a result of the pilot study. Test-takers were supposed to answer the test in the standard time limits of 25 and 55 minutes.

b. Cognitive Styles Recognition Test

In order to recognize and measure the participants' cognitive style, and to separate FD, FI and field-mixed participants, Group Embedded Figures Test (GEFT) (Witkin et al.,1971) was used since it was psychological research made (Witkin, et al.,1977) and one of the best known cognitive styles tests. This standardized instrument (Guild & Garger, 1985) has been used worldwide to differentiate adults in terms of their cognitive/learning styles, personality, psychological differences and other various related characteristics mostly in psychological and instructional studies since the 1960's (Zhang, 2004) as well as analytical ability, social behavior, and problem solving style (Yoo, 2006). This is a valid and reliable test to measure Field dependency /independency according to Witkin et al., (1977). An average split-half reliability of 0.82 both for females and males and a three-year test-retest reliability of 0.89 are reported in the manual (Witkin et al., 1971)

It is a timed pencil-and-paper recognition test in which the participants were supposed to outline a geometric shape within a complex design. The test contains 25 figures or items, presented in three sections and total testing time is about 20 minutes. Section one contains seven figures with a time limit of two minutes, this section is only for practice and the scores are not counted in the total scoring. Section two and three, each contains nine figures with a time limit of five minutes. The remaining eight minutes are intended for giving instructions, distribution and collection of test materials ,etc. (Witkin et al., 1971). Items in various sections are arranged in order of increasing difficulty. The difficulty level of the items increase by light shading of similar sections in the figures (Dani, 1989).

The researcher used Portis, Simpson & Wieseman (1993) coding system to score GEFT test. The total test score is ranging from 0 to 18. According to designers of the mentioned scale and Witkin et al., (1971), Rush & Moore (1991) and Weller et al., (1995), test takers whose scores fall at or near the center of the continuum are field neutral/mixed, meaning these test takers vary in their preference depending on the context. Participants whose scores ranged from 0 to

5 were categorized as FD, 6 to 12 as field- mixed, and 13 to 18 as FI students. Moreover, the test score is based on preference, 18 score indicates the most FI test taker and 0 score indicates the most FD one.

c. Text to Translate

Three paragraphs were selected from an English literary text, to translate by the participants within specified time. The researcher selected the paragraphs from a novel, namely "*To the Lighthouse*", written by Virginia Woolf (1927) as a literary text. The chosen paragraphs were three descriptive following paragraphs of the seventeenth part of the first chapter, *The Window*. The assessment text was selected from a part of the book, which was not related to the rest in terms of meaning, context, and structure.

The researcher used Readability Statistics information estimated by world office software to gain the detailed specification of the text. The whole text, selected by the researcher, contained 1000 words, six paragraphs and 45 sentences of which 532 beginning words of the text, gave to the subjects as Opening section, and they were not supposed to translate this part. Conde-Ruano (2005) believes participants disregard some phenomena in opening sections, probably because they use those sections to contextualize their activity; it is an influence of their usual behavior as regular readers. The next part of the text, which was used as a mean of translation quality evaluation in this study, contained three paragraphs and 468 words. Its Flesch_Reading Ease number was 68.0, which was interpreted that the readability of the text was standard. The order of these following paragraphs in terms of readability was arranged from easy to difficult.

d. Rating Rubric

In order to assess the quality of translation, Christopher Waddington's (2001) rubric was applied. This empirical rubric considers almost all the descriptive and theoretical contributions in translation quality assessment by some famous scholars such as: the criteria for a good translation, the nature of translation errors, quality assessment base on text linguistic analysis, various textual levels and the link between mistakes and these levels, assessment based on the psycholinguistic theory of "scenes and frames" (Waddington, 2001). The rubric includes four methods to assess the quality of translation. Method A is based on error analysis and possible mistakes, method B is based on error analysis and designed to take into account the negative effect of errors on the overall quality of the translations. Method C is a holistic method of assessment, which includes a unitary scale and treats the translation competence as a whole and method D which consists of combining method B and method C in a proportion of 70/30. The raters applied method D to assess the translations of the participants in this study.

C. Procedure

To conduct this study some general phases were followed. In the beginning, TOEFL test was piloted. Then participants took the TOEFL test and in result of homogenization process of English language proficiency, sufficient qualified ones took GEFT test in the next phase.

The researcher followed the sequential instruction presented in the manual to administer GEFT test and the cognitive style of participants was identified by scoring the test.

Following the procedure of the study, FD and FI students were supposed to translate the literary text. Primarily the participants answered a written question on top of the text. In this way, the researcher ensured that none of the participants had read the novel and its Persian translation before of which the assessment text was chosen to translate. Therefore, the participants could not be aware of the other parts of the book and exposed to a separate piece of literary text, and they did not have any presupposition about the characters, content, even the writing style of the writer. Then, the participants translated the text within the time limit of 45 minutes in class environment. They were allowed to use any types of dictionary in addition to English to Persian glossary provided by test administrator. It is worth mentioning the proper time limit for rendering and the vocabulary glossary had been provided according to the performance of 15 undergraduate students with the same characteristics of the participants and their choices of unknown vocabulary of the text besides the researcher's supervision. Afterwards, the translated texts were supposed to score by the raters. In order to achieve a reliable assessment of the quality of translation, raters participated in a training session for 90 minutes and at the end of the session, three raters conducted a pilot assessment on 25 samples. Then, the raters scored the translations of FD and FI participants. In the final phase, the collected data were analyzed and the conclusion came up about the difference between the variables.

III. RESULTS

As the first step in data analysis, English language proficiency test was piloted on 40 samples prior to its actual administration and the index of 0.79 achieved by Cronbach's Alpha formula indicated TOEFL test was reliable. All items also went through item analysis procedure and the criteria of Item Discrimination (ID) and Item Facility (IF) were checked for each item. One item from structure part and three items from reading comprehension part were discarded as they did not enjoy an acceptable range.

In the next step the researcher, performed homogenization procedure in terms of English language proficiency. Two parts of a paper-based TOEFL were administered to 297 participants. The obtained amount of Cronbach's Alpha 0.88 in Table 1 expressed the test was reliable for 297 participants.

TABLEI									
RELIABILITY STATISTICS OF ENGLISH LANGUAGE PROFICIENCY TEST									
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items							
.880	.880	96							

Then, those participants whose scores fell one standard deviation (SD=14.83110) above and below the mean (M=41.9630) were chosen as the homogeneous participants in this study. Hence, 204 ones were known as homogeneous participants in terms of English language proficiency. The related descriptive statistics are printed in Table 2.

I ABLE 2											
DESCRIPTIVE STATISTICS OF THE GENERAL ENGLISH PROFICIENCY TEST											
N Range Minimum Maximum Mean Std. Deviation Varia											
TOEFL	297	68.00	6.00	74.00	42.1852	14.44313	208.604				
Valid N (listwise)	297										

As it was mentioned before to recognize FD and FI cognitive styles of translation students, GEFT test was administered. Thus, out of 204 participants, there were 64 FD, 71 field-mixed and 69 FI participants, of whom two groups of FD and FI were used in the study. The researcher randomly omitted five FI participants to equalize the numbers of FD and FI groups. Therefore, there were 64 FD participants including 46 females and 18 males and 64 FI ones including 51 females and 13 males.

A training and briefing, session was hold to train the raters for scoring the participants` translations according to the assessment rubric. At the end of the session, the raters conducted a pilot assessment on 25 samples and inter-reliability and Pearson correlation between the raters were calculated. The obtained index of .90 showed acceptable inter-reliability between raters. To use Pearson Correlation, normality distribution of each rater`s scores, was calculated by skewness ratio. The index of skewness ratio for each rater (R(1) = -0.148, R(2) = -0.009, R(3) = -1.118) fell in the acceptable range of -1.96 to +1.96, thus, the distribution of the scores was normal. According to the figures depicted in Table 3, the correlation between each two raters was significant. Hence, the raters did not need more training session and they were prepared to score the translations of the participants.

		Rater1	Rater2	Rater3
Rater1	Pearson Correlation	1	.735**	.792**
	Sig. (2-tailed)		.000	.000.
	Ν	25	25	25
Rater2	Pearson Correlation	.735**	1	.745**
	Sig. (2-tailed)	.000		.000.
	Ν	25	25	25
Rater3	Pearson Correlation	.792**	.745**	1
	Sig. (2-tailed)	.000	.000	
	Ν	25	25	25

 TABLE 3

 PEARSON CORRELATION COEFFICIENT BETWEEN RATERS FOR SAMPLES ASSESSMENT

**. Correlation is significant at the 0.01 level (2-tailed).

The same statistical procedure was followed to examine the authenticity of translation scores of FD and FI groups. The descriptive data of translation scores of the two groups is presented in Table 4.

TABLE 4 Descriptive statistics of translation scores										
N Range Minimum Maximum Mean Std. Deviation Variar										
Scores	128	19.00	8.00	27.00	16.4375	4.74674	22.531			
Valid N (listwise)	128									

The obtained data from computing Cronbach's Alpha with the amount of 0.93 indicated there was acceptable interreliability between raters. Normality distribution of each rater's scores was also checked prior to running Pearson Correlation. The result of skewness ratio calculation (R(1=0.63, R(2) = -0.341, R(3)= 0.78)) for raters indicated the achieved figures were within the acceptable range of -1.96 to +1.96 and all the distribution of the scores were normal. The figures in Table 5 showed Pearson correlation between each two raters was significant. Thus; the gained translation scores of the participants were reliable in this study.

		Rater1	Rater2	Rater3
Rater1	Pearson Correlation	1	.867**	.803**
	Sig. (2-tailed)		.000	.000.
	Ν	128	128	128
Rater2	Pearson Correlation	.867**	1	.842**
	Sig. (2-tailed)	.000		.000
	Ν	128	128	128
Rater3	Pearson Correlation	.803**	.842**	1
	Sig. (2-tailed)	.000	.000	

TABLE 5 PEAF ATIONS

*. Correlation is significant at the 0.01 level (2-tailed).

128

128

To test the null hypothesis, the researcher sought the difference between variables. In order to use Independent-Sample test, normality distribution of the translation scores was examined in advance by skewness ratio computation.

The results demonstrated the obtained figure (SR=0.294) fell within the acceptable range of -1.96 to +1.96. Hence, the translation scores were normally distributed and had the required condition for further statistical analysis. The related data to skewness are printed in Table 6.

I ABLE 0 DESCRIPTIVE STATISTICS OF SKEWNESS AND THE RESULT OF COMPUTING SKEWNESS RATIO									
	Ν	Skewness							

	Ν	Skewnes	s	
	Statistic	Statistic	Std. Error	Skewness Statistic / Std.Error of Skewness
Translation Scores	128	.063	.214	0.063 / 0.214 = 0.294
Valid N (listwise)	128			

The results of Independent-samples test were gained from comparing the means of translation performance for FI group (M=19.5313, SD = 4.03543) with that for FD group (M=13.3438, SD = 3.11279).

According to the *t*-test results (t = 9.713, df = 126, p = 0.000 < 0.5), there was a significant difference between the means of translation scores of the two groups with 95% confidence interval. In the other words, the null hypothesis was rejected. More specifically the mean value of translation scores of FI group was higher than the mean value of translation scores of FD group. The *t*-test results are depicted in Table 7.

TABLE 7 INDEPENDENT SAMPLES TEST RESULT FOR TRANSLATION SCORES

		Levene's Tes Equality of	t-test for Equality of Means							
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Translation Scores	Equal variances Assumed	1.689	.196	9.713	126	.000	6.18750	.63706	4.92677	7.44823
	Equal variances not assumed			9.713	118.368	.000	6.18750	.63706	4.92599	7.44901

The difference between the two variables is illustrated in Figure 1.



Figure.1- Box plots of Translation Scores for FI and FD groups

IV. CONCLUSION

It was concluded that FI and FD English translation students performed differently in rendering a prose literary text and FI students outperformed FD ones. It is worth pointing out many theorists and researchers such as Larson (1984) and Munday (2009) have known the translation process as a complex cognitive process, which has basic phases related to the processes of comprehension and re-expression.

Behnam and Fathi (2009) examined the relationship between field dependence/field independence cognitive styles of EFL learners and their performance on reading comprehension test and it was denoted that those with field independence style outperformed the ones with field dependence style.

Regarding the re-expression process phase of translation Nilforooshan and Asghari (2007) found significant difference between field independence and field dependence styles of translation students in writing skill in general and narrative writing in particular. However, they didn't find any significant difference between field independents and field dependents in argumentative writing.

It was pointed out by Witkin et al., (1077) and Brown (2000), Mancy and Reid (2004), that FI persons are more successful to break a complex stimulus into separate elements and to separate individual items from an organized field or context, both in perception and restructuring processes. This mind ability to analyze and focus on details in FI person is stronger comparing with the ability in FD ones. This advantage of FI mind ability has been mentioned to involve features of mind processing in view and language (Brown, 2000), information and experience (Mancy & Reid, 2004), reasoning (Saville-Troike, 2012)

On the other side, translation process requires perception, analysis and reconstruction. Literary translation is also a complex performance deals with problem-solving or puzzle-solving (Landers, 2001). Therefore, the findings of this study, revealed FI translation students with all characteristics of field independency cognitive style, were more successful in translating the selected literary text with at least some complex grammatical structures and some parts which needs stronger abstraction process.

Knowing about their cognitive style types and the related specifications of FD and FI styles, translators can apply strategies to make performance that is more efficient as well as developing their own cognitive styles.

In a wider perspective, translating literary text in its cognitive dimension can help translators to enhance cognitive skills and abilities besides the skills and abilities related to Translation Competence, more specifically the psycho - physiological competence (Montalt-Ressurreccio, et al., 2008)

In respect to the pedagogical implications of this study, the identification of translation students` cognitive styles highlights the requirement of providing an appropriate learning environment which respects different learning styles such as FD and FI learning styles at least in literary translation and reading comprehension classes. In addition, translator trainers could plan their teaching methods of literary translation based on students` mentioned learning styles to gain better achievement. On the other hand, results of this study include the Cognitive Translation Studies, which there has not been any related material or course to this category of translation studies in Central and North branches of Islamic Azad University. Besides, considering the importance of Cognitive Translation Studies and the interest that students showed in knowing about their GEFT test results and the purpose of this study throughout this research, it could be utilizable to provide related materials and add relevant courses to academic syllabus designing.

Furthermore, since the participants of this study were the advanced students who were going to work as translators in the near future, FI students would be more successful in rendering literary texts comparing to FD students more specifically in translating Virginia Woolf's works.

REFERENCES

- [1] Bell, R. T. (1991). Translation and Translating: Theory and Practice. London and New York: Longman.
- [2] Behnam, B., & Fathi, M. (2009). The Relationship between Reading Performance and Field Dependence/Independence Cognitive Styles. *Journal of Teaching English as a Foreign Language and Literature*, 1 (1), 49-62.
- [3] Brown, H. D. (2000). Principles of Language Learning and Teaching. (4th ed.). New York: Longman.
- [4] Conde-Ruano, T. J. (2005). It doesn't look bad: Behavior and results of students at evaluating translations. Unpublished monitored research. University of Granada.
- [5] Dani , N. D., (1989). Scientific Attitude and Cognitive Styles. New Delhi: Northern Book Centre.
- [6] Educational Testing Service. (1991). Reading for TOEFL. ETS.
- [7] Ezpeleta, P. (2005). La noción de género en la planificación de la traducción de la primera lengua extranjera. In I. Garcia Izquierdo (Ed.).en El genero textual y la traduccion:Reflexiones teoricas y aplicaciones pedagogicas, (p. 135).
- [8] Garcia-Peinada, M. A, Para-Membrives, E., & Calssen .A. (Eds.). (2012). Aspects of Literary Translation Building Linguistic and Cultural Bridge in Past and Present. Germany: Deutsche Nationalbibliothek.
- [9] Geseo, T. (2011). Free Sample TOEFL Practice Tests Just The Facts. Retrieved on August 4, 2011 from http://www.authorpalace.com.
- [10] Guild, P. B., & Garger, S. (1985). Marching; to different drummers, Alexandria, VA: Association for Supervision and Curriculum Development.
- [11] Halverson, S. L. (2010). Cognitive Translation Studies Developments in Theory and Method. Norway: University of Bergen.
- [12] Hurtado- Albir, A. (2001). Traducci ón y Traductolog á. Madrid: Catedra.
- [13] Hurtado- Albir, A., & Alves, F. (2009). Translation as a cognitive activity. In J. Munday. (Eds.). *The Routledge companion to translation studies*, (pp.54-74). London: Taylor and Francis Routledge.
- [14] Jiang, Q. (2008). Aesthetic Progression in Literary Translation. Retrieved on July 24. 2012 from http://www.erudit.org/revue/meta/2008/v53/ n4/019651ar.pdf.
- [15] Jonassen, H. D. (2010). Learning to Solve Problems: A Handbook for Designing Problem-Solving Learning Environment: Routledge.
- [16] Kelly, D. (2005). A Handbook for Translator Trainers, Translation Practices Explained Series. Manchester: St. Jerome.
- [17] Kolawole, S. O., & Salawu, A. (2008). The Literary Translator and the Concept of Fidelity. Retrieved on November 5,2010 from. http:// translation journal .net /journal//46lit.htm.
- [18] Landers. C. E. (2001). Literary Translation: A Practical Guide. Great Britain: Multilingual Matters.
- [19] Larson, M. L. (1084). Meaning-based translation: A guide to cross-language equivalence. New York: University Press of America.
- [20] Lopez-Folgado. V. (2012). Literary Translation as a Cognitive Activity .In M. A., Garcia-Peinada. & E. Para-Membrives & Calssen .A. (Eds.). Aspects of Literary Translation Building Linguistic and Cultural Bridge in Past and Present (pp.101-120): Deutsche Nationalbibliothek.
- [21] Mancy, R., & Reid, N. (2004). Aspects of cognitive style and programming. 16th Workshop of the Psychology of Programming Interest Group. Retrieved on July 4, 2012 from: www.ppig.org.
- [22] Montalt -Ressurreccio. V., Ezpeleta Piorno. P., & Garcia Izquierdo. I. (2008). The Acquisition of Translation Competence through Textual Genre. Retrieved on September 17, 2010 from http://translationjournal.net/.
- [23] Munoz-Martin, R. (2009). Expertise and Environment in Translation Mutatis Mutandis. 2(1). 24–37.
- [24] Munday, J. (Ed.). (2009). The Routledge Companion to Translation Studies. London /New York: Routledge.
- [25] Nilforooshan, N., Asghari, A. (2007). The Effect of Field Dependence Independence as a Source of Variation in EFL Learners' Writing Performance. *Iranian Journal of Language Studies (IJLS)*, 1(2), 103-118.
- [26] Rush, M. G., & Moore, D. M. (1991). Effect of restructuring training and cognitive style. Educational Psychology, 11, 309-321.
- [27] Pacte. (2003). Building a Translation Competence Model. In Alves, F. (Ed.): *Triangulating Translation: Perspectives in Process Oriented Research*, (pp. 43-66). Amsterdam: John Benjamins.
- [28] Pacte. (2005). Investigating Translation Competence: Conceptual and Methodological Issues, Meta, 50 (2), 609-618.
- [29] Pacte. (2011). Results of the Validation of the PACTE Translation Competence Model: Translation Project and Dynamic Translation Index. Retrieved on May 2, 2012 from http://grupsderecerca.uab.cat/pacte/sites/grupsderece
- [30] Portis, S. C., Simpson, F. M., & Wieseman, R. A. (1993). Convergence or divergence? Perspectives on experience and cognitive styles of prospective teachers. Montgomery, AL: Auburn University Montgomery. (ERIC Document Reproduction Service No. ED 354 236).
- [31] Rivas-Carmona, M. (2012). A Pragmatic-cognitive Approach to 'Register' in Literary Translation in M. A., Garcia-Peinada. & E. Para-Membrives & Calssen .A. (Eds.). Aspects of Literary Translation Building Linguistic and Cultural Bridge in Past and Present (pp.121-140), Deutsche Nationalbibliothek.
- [32] Robinson, D. (2003). Becoming a Translator: An Introduction to the Theory and Practice of Translation. (2nd ed.). New York: Rutledge.
- [33] Rumetshofer, H., & Wob, W. (2003). XML- based Adaptation Framework for Psychological-driven E-learning Systems. *Educational Technology & Society*, 6 (4), 18-29. Retrieved on June 11, 2011 from http://ifets.ieee.org/periodical/6_3/4. pdf.
- [34] Saville-Troike. M. (2012). Introducing Second Language Acquisition. New York: Cambridge University Press.
- [35] Seid Motahhari,M & Norouzi, M. (2013). Comparison between Field Dependent and Field Independent Cognitive Styles Concerning Translation of a literary Text. In *General and Specialist Translation / Interpretation: Theory, Methods, Practice 6th International Conference Proceedings* (pp.280-283), Ukraine: Siberian Federal University.
- [36] Shreve, G. (2006). The Deliberate Practice: Translation and Expertise. Journal of Translation Studies, 9(1), 27-42.
- [37] Schaffner. C., & Adab. B. (2000). Developing Translation Competence. John Benjamins.B.V.

- [38] Soto-Andrade. J. (2007). Metaphors and Cognitive Modes in the Teaching-Learning of Mathematics. Retrieved on April 6.2012 from https://doc-0k-94-docsviewer.googleusercontent.com.
- [39] Vandepitte, S. (2008). Remapping Translation Studies: Towards a Translation Studies Ontology. Retrieved on September 17, 2010 from http://www.erudit.org/revue/meta/2008 /v53/n3/019240ar.html?vue =resume.
- [40] Waddington, C. (2001). Different methods of evaluating student translation: The question of validity. *Meta: Translator's Journal*, 46(2), 311-325.
- [41] Weller, H. G., Repman, J., Lan, W., & Rooze, G. (1995). Improving the effectiveness of learning through hypermedia-based instruction: The importance of learner characteristic. *Computers in Human Behavior*, 11, 461-465.
- [42] Williams, J., & Chesterman, A. (2002). The Map. A Beginner's Guide to Doing Research in Translation Studies. Manchester: St. Jeroteme.
- [43] Willson, F.C. (2009). A Model Translating Metaphors In Proverbs (French To English): A Cognitive Descriptive Approach. Unpublished Master thesis. University of British Columbia.
- [44] Witkin, H. A., Oltman, P. K., Raskin, E., & Karp, S. A. (1971). Manual for embedded figures test, children's embedded figures test, and group embedded figures test. Palo Alto, CA: Consulting Psychologists Press.
- [45] Witkin, H. A., Moore, C.A., Goodenough, D.R., Cox, P.W. (1977). Field Dependent and Field-Independent Cognitive Styles and Their Education Implications. *Review of Educational Research*, 47(1), 1-64.
- [46] Woolf, V. (1927). To the lighthouse. In M. Drabble (Ed.), To the lighthouse. Canada: Oxford University Press.
- [47] Yoo, w. s. (2006). Group Embedded Figures Test. Retrieved on November 7, 2010 from http://www.mendeley.com/researchpapers.
- [48] Zhang, L. (2004). Field dependence /independence: Cognitive style or perceptual ability validating thinking styles and academic achievement. *Personality and Individual Differences*, *37*, 1295-1311.

Masoud Seid Motahari is an assistant professor of TEFL at Central Tehran Branch of Islamic Azad University. He teaches courses in both the graduate Translation Studies and TEFL programs. His primary research interests are philosophy, linguistics, and translation studies.

Mehrnoush Norouzi holds an MA degree in Translation Studies from Islamic Azad University, Central Tehran Branch. She is currently an English teacher and works as a freelance translator. Her major areas of research interest are translators, Cognitive Translation Studies, TQA, and Teaching Translation.