An Exploration on the Relationship among Learners' Autonomy, Language Learning Strategies and Big-Five Personality Traits

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Abstract:The purpose of this study was to investigate the relationship among Big-Five Personality Traits, Language Learning Strategies and learners' Autonomy. To achieve the goals of study, the researchers selected a group of 150 female and male EFL learners at various branches of universities in Tehran. Participants were required to fill out three questionnaires which were Strategy Inventory for Language Learning (SILL), NEO Five-Factor inventory (NEO-FFI), and Learner Autonomy. The results of this study indicated that there is a significant and positive relationship among these three variables. It can be concluded that EFL learners' use of language learning strategies can significantly predict their autonomy. Moreover, the results display the relationship between five domains of personality with six language learning strategies and autonomy. On the whole, it was found out that personality types of learners had a significant correlation with degree of autonomy and preference for language learning strategies use. Regarding the findings of the study, the obtained results may help EFL teachers, material developers, and educational policy makers bear in mind that five-factor personality of learners can have a predictive role in fostering autonomy and language learning strategies use.

Keywords:autonomy, big-five personality traits, EFL learners, language learning strategies.

I. Introduction

Recently some studies tend to concentrate more on individual differences in strategy performance [1], [2], [3]. In such related studies, it was shown for strategy instruction to be affected; it should take all the variables into account [4]. [5] reported that language teaching research has shifted its focus away from different teaching methodologies to learner characteristics and their possible influence on the process of acquiring a second language. As we go further, divergence of learners' personality factors becomes more and more important in providing different learning services [6]. However according to [7], [8], [9] students who think and work strategically are more motivated to learn and have a higher sense of self-efficacy or confidence in their own learning ability.Under these circumstances, the concept of "autonomy" has attracted attention as an alternative approach to language learning [10], [11]; that is, learners should not only learn how to acquire a foreign language by using different strategies, but also learn to be responsible for their own learning process.

1.1 Learner Autonomy (AU)

There are many educators and thinkers who tried their best in defining learner autonomy and writing down its principles. For instance [9] defines it by saying that autonomy is a capacity for detachment, critical reflection, decision-making, and independent action. It presupposes, but also entails that the learner will develop a particular kind of psychological relation to the process and content of his learning. [12] defines learner autonomy as the ability to take charge of one's own learning, which he then specifies as to have, and to hold, the responsibility for all the decisions concerning all aspects of this learning. [12] outlines the following components as an entirely self-directed process of learning. These components are fixing the objectives, defining the content and progression, selecting the methods and techniques to be used, monitoring the acquisition procedure, and evaluating what has been acquired;therefore, learning how to learn autonomously by the learner is a very crucial component that English language teachers have to take into account when teaching.

1.2 Language Learning Strategies (LLSs)

[13] stated that "language learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8). Learning strategies enable students to take more responsibilities of their own language learning and develop autonomy in their studies. [14] makes a distinction between direct and indirect strategies. Direct strategies are those specific procedures that learners can use to improve their language skills, and include memorizing, analyzing, reasoning and guessing intelligently. On the other hand, indirect strategies include factors such as evaluating one's learning and cooperating with others. Studies of LLSs have shown that their application is related to both individual differences [15], [16] and the contexts in which learners acquire the language [17],

[18]. Since language is socially mediated and context dependent, it would follow that learners' use of language learning strategies could vary with their personalities.

1.3 Big-Five Personality Traits (BFPT)

Personality can be defined in terms of factors that explain behavior, temperaments, or dispositions [19]. The learners' personality types are very crucial components that English language teachers have to take into account when teaching English language.

A brief summary of five dimensions of personality types identified in both natural languages and psychological questionnaires are as follow:

Neuroticism: It is a general tendency to experience negative effects such as anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability. Higher scores on the neuroticism domain are indicative of the presence of neuroses. Low scores are associated with emotional stability and the ability to handle stress [20].

Agreeableness: It is tendency to be pleasant and accommodating in social situations [21]. It is a dimension of interpersonal tendencies. Highly agreeable individuals tend to be altruistic, compliant, modest, and trusting, while disagreeable individuals tend to be egocentric, skeptical of others intentions, and very competitive.

Extroversion-Introversion: An extrovert is said to receive energy from outside sources, whereas an introvert is more concerned with the inner world of ideas and is more likely to be involved with solitary activities. This trait does not just describe whether a person is outgoing or shy, but it considers whether a person prefers working alone or working in a team [22], (p.157).

Openness to experience: It involves active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, and intellectual curiosity [23].

Conscientiousness: It is the trait of being painstaking and careful, or the quality of acting according to the dictates of one's conscience. It includes such elements as self-discipline, carefulness, thoroughness, organization, deliberation (the tendency to think carefully before acting), and need for achievement [23].

Based on the above-mentioned points, understanding the relationship of these three factors: autonomy, language learning strategies and big-five personality traits, explain how learners differ in their language learning process. Starting out from this perspective, this study attempts to examine the relationship among AU, LLSs, and BFPT in Iranian EFL learners.

II. Methodology

2.1 Participants

The participants of this study were the Iranian students studying English in Islamic Azad University different branches in Tehran. There were 150 students, ranging between 19 and 30 years old. The participants were almost evenly split between89 females (59%) and 61 males (41%). They were selected randomly and filled out three questionnaires respectively.

2.2 Instruments

The following instruments were used to gather data at this study:

2.2.1. Learner autonomy questionnaire (AUQ):

To evaluate the participants' level of autonomy, a questionnaire of autonomy, developed by [24], including 52 items were administered. The instrument has four sections. The first section (13 items) focuses on examining the students' views of their responsibilities and those of their teachers; the second section (11 items) explores the students' confidence in their ability to operate autonomously; the third section (1 item) aims to measure the levels of student motivation to learn English; the fourth section (27 items) investigates the students' practice of autonomous learning both inside and outside classroom.

2.2.2. The Strategy Inventory for Language Learning (SILL):

The second instrument in this study was SILL (version 7.0) questionnaire developed by [13]. It covers six categories: Items 1-9 are concerned with the effectiveness of memory (memory strategies); items 10-23 are concerned with the use of mental processes (cognitive strategies); items 24-29 relate to the compensation for missing knowledge (compensation strategies); items 30-38 deal with the organization and evaluation of learning (meta-cognitive strategies); items 39-44 are concerned with emotion management (affective strategies); and items 45-50 deal with learning with others (social strategies). According to [25], SILL has consistency scored above .90 using Cronbach alpha, which indicates high internal reliability. Also the content validity of the instrument was quite reasonable.

2.2.3 Neo-Five-Factor Inventory (NEO-FFI):
        The NEO-FFI is a shortened version of the Revised NEO Personality Inventory (NEO PI-R) and provides a measure of the five domains of adult personality: Neuroticism (N), Extroversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C), using a 60-item form [20]. Sixty items are rated on a 5-point Likert-scale and requires 30 minutes to complete.Internal consistency reliabilities for the NEO-FFI, range from 0.68 (A) to 0.86 (N). Also, test–retest reliabilities range from 0.79 (E and O) to 0.89 (N).

III.   Procedure

        In order to achieve the purpose of the study, the following procedure was carried out. The researcher randomly selected 150 students among both male and female sophomore, junior and senior, with the age range of 19-30, majoring in English Translation and English Literature at different branches of Islamic Azad Universities in Tehran. Students were informed that their scores will not affect their final exam scores and the results will be used for the purpose of research. After giving a brief orientation, students received a package of research instruments containing the AU, LLSs, and NEO-FFI questionnaire along with the written instruction. It took 80 minutes to complete these questionnaires; therefore, the students were asked to fill the questionnaires and return them on the next session. They were encouraged to respond to the items carefully and honestly.

IV.   Results

4.1 Predictability of AU through LLSs
        Based on the results displayed in Table 1 it can be claimed that all components of learning strategies can predict 44.6 percent of learner autonomy (R = .668, R^2 = .446). On the second step, the affective strategy was excluded to reduce the predictive power to 44.5 percent (R = .667, R^2 = .445). And finally the compensation strategy was excluded on the third step to reduce the predictive power to 43.2 percent (R = .664, R^2 = .432).

				Table 1 Model Summary	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.668[a]	.446	.427	16.576	
2	.667[b]	.445	.430	16.523	
3	.666[c]	.444	.432	16.495	2.058
a. Predictors: (Constant), Affective, Compensation, Memory, Metacognitive, Cognitive					
b. Predictors: (Constant), Compensation, Memory, Metacognitive, Cognitive					
c. Predictors: (Constant), Memory, Metacognitive, Cognitive					
d. Dependent Variable: Learner autonomy					

        The results of the ANOVA (Table 2) significance of the regression model(p < .05) indicated that the results displayed in Table 1 were statistically significant at all three steps. Thus, it can be concluded that EFL learners' use of language learning strategies can significantly predict their autonomy.Memory, Metacognitive, and Cognitive strategies were the best predictors.

|			Sum of Squares		df		Mean Square		F		Sig.
									Table 2 ANOVA Tests of Significance of Regression Model		
Model			Sum of Squares		df		Mean Square		F		Sig.
1	Regression		31822.507		5		6364.501		23.165		.000[b]
	Residual		39563.866		144		274.749				
	Total		71386.373		149						
2	Regression		31802.336		4		7950.584		29.124		.000[c]
	Residual		39584.038		145		272.993				
	Total		71386.373		149						
3	Regression		31662.437		3		10554.146		38.790		.000[d]
	Residual		39723.936		146		272.082				
	Total		71386.373		149						
a. Dependent Variable: Learnerautonomy											
b. Predictors: (Constant), Affective, Compensation, Memory, Metacognitive, Cognitive											
c. Predictors: (Constant), Compensation, Memory, Metacognitive, Cognitive											
d. Predictors: (Constant), Memory, Metacognitive, Cognitive											

        Table 3 displays the regression coefficients which can be used to build the regression formula and to evaluate the contribution of the predictor (language learning strategies) to the dependent variable (learner autonomy). The results indicated that a unit of increase in a subject's score on memory strategy resulted in 1.30 units increase in his or her learner autonomy. The results of the t-test (t = 2.62, p < .05) indicated that memory strategy had a significant contribution to learner autonomy. Metacognitive strategy showed a significant contribution to autonomy (t = 2.50, p< .05). Also, cognitive and compensation strategies had a non-significant

contribution to learner autonomy. The t-test results were (t = 1.92, p > .05) and (t = .732, p > .05) respectively. Furthermore, the affective strategy had a non-significant contribution to learner autonomy (t = -.27, p > .05). The results of affective strategy indicated that a unitof increase in one's affective strategy resulted in .176 (pay attention to the negative sign) unit decrease in his or her learner autonomy.

Table 3 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	68.873	9.198		7.488	.000
	Memory	1.300	.496	.260	2.621	.010
	Cognitive	.710	.369	.208	1.925	.056
	Compensation	.487	.665	.063	.732	.465
	Metacognitive	1.376	.549	.252	2.508	.013
	Affective	-.176	.650	-.026	-.271	.787
2	(Constant)	69.025	9.151		7.543	.000
	Memory	1.267	.479	.253	2.643	.009
	Cognitive	.671	.339	.196	1.980	.050
	Compensation	.473	.661	.061	.716	.475
	Metacognitive	1.363	.545	.250	2.502	.013
3	(Constant)	70.079	9.017		7.772	.000
	Memory	1.272	.479	.254	2.658	.009
	Cognitive	.753	.319	.220	2.363	.019
	Metacognitive	1.475	.521	.270	2.831	.005

As displayed in Normal P-P plot (Figure 1), the spread of dots have fallen on the diagonal. Thus, it can be concluded that the assumption of normality was met.
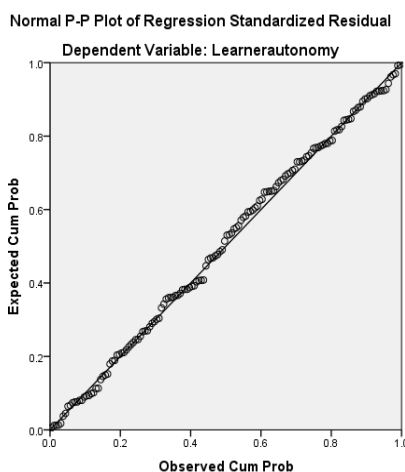
Figure 1: Testing Normality Assumptions.

4.2 Correlation between LLSs and BFPT

As the correlation between personality traits and language learning strategies is considered in Table 4; the highest three correlations are between; neuroticism with cognitive strategy (r = .775, p < .05), conscientiousness with meta-cognitive strategy (r = .771, p < .05) and openness to experience and memory strategy (r = 765, p < .05).In addition,Agreeableness had the lowest correlations with compensation strategies (r = .490, p < .05), social strategy (r = .545, p < .05) and metacognitive strategy (r = .547, p < .05). All of the Pearson statistics enjoyed large effect sizes.

Table 4 Pearson Correlations between BFPT and LLSs							
		Memory	Cognitive	Compensation	Metacognitive	Affective	Social
Neuroticism	Pearson Correlation	.763**	.775**	.606**	.727**	.708**	.666**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
Extroversion	Pearson Correlation	.754**	.742**	.657**	.763**	.716**	.714**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
Openness to experience	Pearson Correlation	.765**	.768**	.629**	.735**	.729**	.637**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150

Agreeableness	Pearson Correlation	.629**	.685**	.490**	.547**	.614**	.545**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
Conscientiousness	Pearson Correlation	.727**	.760**	.663**	.771**	.647**	.732**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
**. Correlation is significant at the 0.01 level (2-tailed).							

4.3 Correlation between AU and BFPT

The results of the Pearson correlation analyses (Table 5) indicated that there are significant and positive correlations among all components of BFPT and learner autonomy. Autonomy has significant and high correlation with neuroticism ($r_{(148)}$ = .605, p < .05, representing a large effect size), extroversion ($r_{(148)}$ = .566, p < .05, representing a large effect size), openness to experience ($r_{(148)}$ = .604, p < .05, representing a large effect size), agreeableness ($r_{(148)}$ = .415, p < .05, representing a moderate to large effect size) and conscientiousness ($r_{(148)}$ = .620, p < .05, representing a large effect size). The lowest correlation was between Agreeableness and Autonomy (r = 415), and the highest correlation was between Conscientiousness and Autonomy (r = 620).

Table 5 Pearson Correlation; Learner AU with Domains of Personality

		Learner autonomy
Neuroticism	Pearson Correlation	.605**
	Sig. (2-tailed)	.000
	N	150
Extroversion	Pearson Correlation	.566**
	Sig. (2-tailed)	.000
	N	150
Openness to experience	Pearson Correlation	.604**
	Sig. (2-tailed)	.000
	N	150
Agreeableness	Pearson Correlation	.415**
	Sig. (2-tailed)	.000
	N	150
Conscientiousness	Pearson Correlation	.620**
	Sig. (2-tailed)	.000
	N	150

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

V. Discussion

The results of the study indicated that there is a significant relationship among Iranian EFL learners' use of language learning strategies and autonomy with their personality traits. Furthermorelanguage learning strategies could significantly predict the degree of autonomy in EFL learners. This study had three outcomes.Firstly, the relationship between personality traits and autonomy is considered as a novel idea. According to the results, there is a significant relationship between these two variables. Among the components of big-five personality, conscientiousness had the highest correlation with autonomy and the lowest correlation is related to agreeableness. Secondly, the other outcome indicated that there is a significant relationship between personality traits and language learning strategies. The highest three correlations are between; neuroticism with cognitive strategy, conscientiousness with meta-cognitive strategy and openness to experience and memory strategy. Besides, Agreeableness had the lowest correlations with metacognitive, social and compensation strategies. These findings were also in line with the findings of [26] and [27]. At last, this can be inferred that language learning strategies can significantly predict autonomy. Among the components of strategies, memory, metacognitive, and cognitive strategies were the best predictors of autonomy. It can be concluded that the prediction of learner autonomy through language learning strategies was a novel idea among researchers.

To conclude the discussion, the results indicate that the use of language learning strategies by EFL learners predicts their autonomy. Moreover the results reveal that the personality types of students have high correlation with learning strategies and autonomy. In this regard, one can assume that no student is thoroughly without a sense of autonomy and the use of language learning strategies. This statement is consistent with [28] notion that no student is completely without a sense of responsibility and we are not to face an ideal responsible student, either. In addition, [28] express learning strategies as one of the most important building blocks of responsibility and autonomy. However, utilizing different strategies while learning and improving the degree of autonomy in learners, with respect to their personality traits, may contribute to greater success in learning and teaching.

VI. Conclusion

It should be noted that this study is a descriptive one. The findings of this study may lead teachers' attention to the awareness of the determiningrole of personality traits, autonomy, and the use of language

learning strategies as contributing factors to the learners' success in the process of learning a target language. Improving learner autonomy and language learning strategy use, with considering personality types of students are now deemed to be the main goal of the various countries' educational systems. Moreover, by paying attention to the use of different strategies, based on learners' autonomy levels and personality types of the students, teachers can make the process of learning faster, easier, and less time-consuming.As a result, without adequate knowledge about language learners' personality traits and the degree of autonomy, teachers cannot provide students with a range of teaching strategies. These outcomes persuade English teachers, teacher trainers and curriculum designers to consider these three variables in the process of teaching and learning.

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