Psychology. Journal of the Higher School of Economics. 2024. Vol. 21. N 1. P. 184–201. Психология. Журнал Высшей школы экономики. 2024. Т. 21. № 1. С. 184–201. DOI: 10.17323/1813-8918-2024-1-184-201

THE INFLUENCE OF BIG FIVE PERSONALITY TRAITS ON FOREIGN LANGUAGE CLASSROOM ANXIETY

A.KH. ERZHANOVA^a, A.V. KHARKHURIN^a, V.L. KONCHA^a

^a HSE University, 20 Myasnitskaya Str., Moscow, 101000, Russian Federation

Влияние «Большой пятерки» личностных черт на языковую тревожность

А.Х. Ержанова^а, А.В. Хархурин^а, В.Л. Конча^а

^a Национальный исследовательский университет «Высшая школа экономики», 101000, Россия, Москва, ул. Мясницкая, д. 20

Abstract

Knowledge of a foreign language helps people from different cultures exchange experiences, expertise, and ideas worldwide. It is considered a valuable asset in the professional field and may be highly useful in personal life. Foreign language classroom anxiety is a phenomenon associated with fear and nervousness that occurs in a language learning context. Foreign language classroom anxiety often leads to a decrease in overall process efficiency, motivation loss, and avoidance of language practice. The aim of this study is to investigate, whether Big Five personality traits contribute to foreign language classroom anxiety. Four hundred and fifty-two foreign language learners aged between 16 and 70 participated in the study. Participants were given a Big Five personality inventory to

Резюме

Знание иностранного языка помогает людям из разных культур обмениваться опытом, делиться экспертизой и идеями по всему миру. Способность говорить на иностранном языке является конкурентным преимуществом как в профессиональной, так и частной жизни. Языковая тревожность — это страх и нервозность, которые возникают в контексте изучения иностранного языка. Зачастую языковая тревожность способствует снижению эффективности процесса, потере мотивации и избеганию практики иностранного языка. Цель настоящего исследования - выявить, существует ли влияние личностных черт «Большой пятерки» на формирование языковой тревожности. В исследовании приняли участие 452 человека в возрасте от 16 до 70 лет, которые изучают различные иностранные языки. Участникам были предложены краткая версия опросника личностных черт «Большая пятерка»

The article was prepared in the framework of a research grant funded by the Ministry of Science and Higher Education of the Russian Federation (grant ID: 075-15-2022-325).

Статья подготовлена в рамках научного гранта Министерства науки и высшего образования РФ, проект № 075-15-2022-325).

assess their personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness to new experience), and a foreign language classroom anxiety scale which measures the following components: test anxiety, fear of negative evaluation, and communication apprehension. Linear regression was used as an analysis method. The results revealed that neuroticism positively predicted fear of negative evaluation, communication apprehension, and test anxiety. Extraversion negatively predicted fear of negative evaluation, communication apprehension, and test anxiety. Openness to experience also negatively predicted all three foreign language anxiety components. The results of the study suggest that knowledge of learners' Big Five personality traits may decrease the levels of foreign language anxiety in a classroom.

Keywords: foreign language anxiety, personality traits, Big Five.

Asiia Kh. Erzhanova — Graduate of the Master's program, School of Psychology, Faculty of Social Sciences, HSE University.

Research Area: language anxiety, cognitive aspects of foreign language acquisition, educational psychology, intercultural competencies.

E-mail: asyaerzhanovaa@gmail.com

Anatoliy V. Kharkhurin — Associate Professor, School of Psychology, Faculty of Social Sciences, HSE University, PhD in Psychology:

Research Area: creativity, plurilingualism, bi- and multilingualism, plurilingual creativity, bilingual creativity, intercultural competence, bilingual education, creative education, bilingual memory, code-switching, cognitive aspects of art. E-mail: akharkhurin@bse.ru

для оценки уровня экстраверсии, доброжелательности, добросовестности, нейротизма и открытости новому опыту, а также шкала тревожности на занятиях иностранным языком для оценки их языковой тревожности, которая состоит из таких компонентов, как тестовая тревожность, боязнь негативной оценки, а также коммуникативное восприятие. В качестве метода анализа данных была выбрана линейная регрессия. Результаты показали, что нейротизм позитивно влияет на боязнь негативной оценки, коммуникационное восприятие и тестовую тревожность. Экстраверсия негативно влияет на боязнь негативной оценки, коммуникативное восприятие и тестовую тревожность. Открытость также негативно влияет все три компонента языковой тревожности. Полученные результаты позволяют сформулировать вывод о необходимости учитывать личностные черты обучающихся в процессе изучения иностранных языков с целью снизить уровень языковой тревожности.

Ключевые слова: языковая тревожность, личностные черты, «Большая пятерка».

Ержанова Асия Халимжановна — выпускница магистратуры, департамент психологии, факультет социальных наук, Национальный исследовательский университет «Высшая школа экономики».

Сфера научных интересов: языковая тревожность, когнитивные аспекты изучения иностранных языков, педагогическая психология, межкультурные компетенции.

Контакты: asyaerzhanovaa@gmail.com

Хархурин Анатолий Владимирович — доцент, департамент психологии, факультет социальных наук, Национальный исследовательский университет «Высшая школа экономики», PhD по психологии.

Сфера научных интересов: креативность, полилингвизм, мультилингвизм, билингвизм, полилингвальная креативность, межкультурные компетенции, билингвальное образование, креативное образование, билингвальная память, кодовые переключения, когнитивные аспекты искусства.

Контакты: akharkhurin@hse.ru

Valeriya L. Koncha — PhD student, Research Fellow, International Center for the Study of Institutions and Development, Institute for Industrial and Market Studies, Faculty of Social Sciences, HSE University.

Research Area: polylingual creativity, digitalization, protests, quantitative political methodology

E-mail: vkoncha@hse.ru

Конча Валерия Леонидовна — аспирант, младший научный сотрудник, Международный центр изучения институтов и развития, Институт анализа предприятий и рынков, факультет социальных наук, Национальный исследовательский университет «Высшая школа экономики».

Сфера научных интересов: полилингвальная креативность, цифровизация, протесты, количественная политическая методология.

Контакты: vkoncha@hse.ru

Nowadays, it is impossible to underestimate the importance of foreign languages. People learn foreign languages at all ages. Immigrants, professional migrants, international students, and tourists must acquire languages different from their natives. People have various experiences learning a foreign language: for some people, it is easy and pleasant, but for many others, it is related to particular difficulties and stress. Many factors can account for difficult experiences with foreign language learning, cognitive, personal, social, cultural, emotional, etc. For example, according to Federmeier, Jongman, and Szewczyk (Federmeier et al., 2020), language comprehension and production are the most complex cognitive skills. Perceiving information in a foreign language may be challenging and requires a cognitive effort. Social interaction can also facilitate or hinder language learning. It helps language learners to focus on specific words or phrases (Yu & Ballard, 2007) and may lead to maximizing the efficiency of learning a foreign language or, on the other hand, produce some additional difficulties. Lastly, the National Standards for Foreign Language Education project (National Standards in Foreign Language Education Project, 1996) suggests that mastering a foreign language is closely connected to the knowledge of a cultural context. The American Council created this project on the Teaching of Foreign Languages, which includes French, German, Spanish, and Portuguese. These standards were developed for elementary and secondary school education and cover five goals of education. These five educational goals are communication skills, understanding the culture, interrelation of language and other areas of knowledge, comparing language and culture, and practicing in multilingual communities.

This emphasizes the role of the cultural factor in which language learning occurs. For example, a cross-cultural study (El-Zahhar & Hocevar, 1991) revealed that language learners in the USA, Brazil, and Arab countries experienced high test anxiety due to the severe consequences of their exam performance on their career development. Another example of how the language itself may influence differences in the development of language anxiety can be found in the study by Dewaele (2002). Individuals with low neuroticism reported lower levels of communicative anxiety in English, but the same individuals did not demonstrate this effect when learning French.

One of the major obstacles in successful language learning appears to be anxiety experienced by learners. Foreign language anxiety (FLA) is a complex construct related to the sense of security, self-confidence (Spielberger et al., 1976), and language achievement (Onwuegbuzie et al., 2000; Abbasova & Shavyrina, 2019).

Horwitz, Horwitz, and Cope (1986) defined foreign language anxiety (FLA) as "a distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process" (p. 126). There is evidence that fifty per cent of language learners suffer from FLA (Horwitz & Young, 1991). Our work aims to close the gap in understanding the nature of FLA and investigate the personality traits causing it.

The theme of anxiety is discussed in the studies of behavioral theory, trait theory, and social cognitive theory (McIlroy et al., 2000). Traditionally, anxiety is classified as trait and state anxiety (Spielberger, 1972). People with trait anxiety tend to think of different circumstances as a threat or danger, whereas state anxiety is linked to a specific emotional situation that is perceived as unpleasant (Lufi et al., 2004). In this classification, FLA appears to be a state of anxiety that occurs in a foreign language learning context. The state of FLA is associated with tension and fear during a language learning process (Šafranj & Zivlak, 2019). There is evidence that individuals with general anxiety are much more likely to develop FLA (Shomoossi et al., 2009). FLA is accompanied by such physical symptoms as headache, stomachache, a racing heart, etc. (Šafranj & Zivlak, 2019). Experience of FLA among individuals varies depending on their motivation towards learning, the complexity of the tasks, and the consequences of their language performance (Humphreys & Revelle, 1984). That is, although anxiety appears to be one of the universal human conditions, the levels of FLA might differ among learners.

FLA is usually perceived along three axes: fear of negative evaluation, test anxiety, and communication apprehension (Horwitz et al., 1986). The fear of negative evaluation is defined as "apprehension about others' evaluations, avoidance of evaluative situations, and the expectations that others would evaluate oneself negatively" (Watson & Friend, 1969, p. 449). Individuals experiencing fear of negative evaluation are likely to avoid situations that involve judgment. Horwitz and her colleagues suggested that the fear of negative evaluation can be triggered by the high language proficiency of a teacher and/or classmates.

Test anxiety also appears to be a common state among foreign language learners that occurs in the context of examination. There is evidence that 30% of all learners experience different levels of test anxiety (Shaked, 1996). Text anxiety influences learners' performance during exams, although their knowledge may be sufficient to succeed. Smyth (1995) suggested that test anxiety becomes extreme, especially among adults whose language test results impact their career opportunities. Interestingly, test anxiety does not only occur during nationwide exams; midterm or final university exams may be the reason for test anxiety (Asmali, 2017). Irrespective of the type of an examination, some additional factors contribute to the development of test anxiety. These are personality traits, learners' capabilities, and psychological and social characteristics (Gregersen & Horwitz, 2002).

Communication apprehension is a person's fear of engaging in a conversation due to poor communication skills. However, this person can communicate her or his ideas freely in a native language (Aydın, 2008). Young (1991) suggested that learners prefer not to participate in various language-related activities because they fear making mistakes in a foreign language. Price (1991) reported fear of

wrong pronunciation as the primary source of language anxiety. Koch and Terrell (1991) also argued that language students are most afraid of speaking in front of their peers.

Gregersen and Horwitz (2002) identified the following factors influencing the development of FLA: behavioral, cognitive, sociolinguistic, psycholinguistic, and physiological. For example, behavioral factors may include not attending classes or not doing homework. Aydın, Yavuz, and Yeşilyurt (2006) found that test anxiety was mainly provoked by language proficiency, parents' expectations, and students' attitudes toward language learning. Another study (Chamorro-Premuzic et al., 2008) demonstrated that this constituent of FLA was determined by students' personality, perceived levels of intelligence, and self-evaluation. Many researchers agree that personality significantly impacts language anxiety development (e.g., Gass & Selinker, 1994; Cook, 1991; Murray & Mount, 1996). For example, based on Cook's assumption that some specific personality traits can either facilitate or inhibit the learning process, Gas and Selinker suggested that personality significantly influences language achievement. Muray and Mount highlighted that learning habits are also connected to personality, which influences the differences between learners.

In personality literature, the Big Five Personality Model includes five personality dimensions, openness to experience, conscientiousness, extraversion-introversion, agreeableness, and neuroticism-emotional stability (Ellis, 2008). The Big Five personality traits were shown to influence one's attitudes, skills, interests, and strategies for adapting to the environment (Burger, 2011).

The openness to experience trait addresses how individuals perceive adventures, how curious they are, and how likely they are to be involved in new activities, experiences, and emotions. Those who are low in openness are consistent and cautious, whereas being high in openness means being curious and inventive (Šafranj & Zivlak, 2019). Individuals with high openness may be unpredictable and lack focus, while those with low openness involve well-known activities (Toegel & Barsoux, 2012).

Conscientiousness assesses the extent to which an individual is organized, self-disciplined, follows the plans, and performs dutifully. Those who are low in conscientiousness are careless and negligent, while those who are high in this trait are organized and efficient (Šafranj & Zivlak, 2019). On the other hand, high conscientiousness was associated with being stubborn, while low conscientiousness was associated with flexibility (Toegel & Barsoux, 2012). Conscientiousness was found to consistently predict academic achievement (Poropat, 2009).

Extraversion refers to the extent to which an individual seeks the company of other people and is talkative and sociable. Individuals with high scores in extraversion are outgoing and energetic, while those with lower levels of extraversion are more reserved and solitary (Šafranj & Zivlak, 2019). High extraversion was associated with attention-seeking, while low extraversion indicated a reflective personality (Toegel & Barsoux, 2012).

Agreeableness refers to the extent to which an individual is cooperative and empathetic rather than antagonistic toward the environment (Šafranj & Zivlak,

2019). Individuals with higher agreeableness are more likely to be naive and submissive, while lower levels of agreeableness are associated with competition and demands (Toegel & Barsoux, 2012). Hair and Graziano (2003) reported a link between agreeableness, academic achievement and scholastic competence.

Emotional stability (neuroticism) refers to the degree to which an individual easily suffers from unpleasant emotions, for instance, anxiety, depression, or irritation. It is also linked to the ability to control impulses (Šafranj & Zivlak, 2019). High neuroticism means being spontaneous and irritable, while the opposite is organized and steady (Toegel & Barsoux, 2012).

A growing body of literature demonstrates a relationship between Big Five personality traits and FLA.

Openness to experience turned out to be negatively correlated with FLA (e.g., Babakhouya, 2019; Gargalianou et al., 2016). These findings also overlapped with Chamorro-Premuzic and his colleagues (2008) and Khosravi and Bigdely (2008), who investigated the relationship between imagination and test anxiety. Openness to experience consists of intellectual and creative components, the latter including creativity, aesthetics, and imagination (DeYoung, 2003). Hence, test anxiety was found to relate to the creative component of openness.

In recent research, the role of conscientiousness in developing FLA has been contradictory. For example, a few studies found a positive relationship between conscientiousness and FLA (e.g., Gargaliano et al., 2016; McIlroy et al., 2000), whereas others did not find any significant relationship between these two (e.g., Babakhouya, 2019).

The influence of extraversion on FLA received substantial coverage in literature (e.g., Babakhouya, 2019; Chamorro-Premuzic & Furnhamm, 2003; Khosravi & Bigdely, 2008; MacIntyre & Charos, 1996). However, these findings appear to be contradictory. For example, Babakhouya and Chamorro-Premuzic, and Furnham reported that extraversion was positively related to test anxiety and fear of negative evaluation. However, Khosravi and Bigdely found no significant relationship between those variables. Moreover, MacIntyre and Charos reported a significantly negative relationship between extraversion and language anxiety.

Agreeableness was negatively correlated with FLA (Babakhouya, 2019). The researcher explained that individuals with high scores in agreeableness were more likely to manage positive relationships and feel free to talk to others.

Finally, there is indirect evidence for the relation between neuroticism and FLA. Language learning requires substantial attention and a systematic approach, and people with low emotional stability concentrate on their emotions and negative self-talk (De Raad & Schouwenburg, 1996). This study also suggested that those with high neuroticism scores are less successful in academic performance due to their personality characteristics, which might also influence FLA development. Dewaele (2002) reported significant relationships between neuroticism and FLA among Flemish students in English and French classes. These findings were supported by studies demonstrating a link between test anxiety and neuroticism (e.g., Babakhouya, 2019; Khosravi & Bigdely, 2008). In the same fashion, Šafranj and Zivlak (2019) suggested that learners with low emotional stability tend to experience more

anxiety in a foreign language learning context, while MacIntyre and Charos (1996) reported no correlation between emotional stability and FLA.

Present Study

The reviewed literature unambiguously links Big Five personality traits and FLA. The current study aims to provide a more systematic investigation of this relation. In contrast to other studies, we considered the FLA components independently and proposed the following hypotheses. First, openness, agreeableness, and extraversion negatively predict FLA components of fear of negative evaluation, test anxiety, and communication apprehension. Second, conscientiousness and neuroticism positively predict those FLA components.

Method

Participants

Four hundred and fifty-two individuals (70 males and 382 females) aged between 16 and 70 (M = 27.21, SD = 11.02) participated in the study. Participants were recruited through social media (e.g., VK). The participants came from 30 countries, mostly from Russia (362) and Kazakhstan (39), while others were from Belarus, Israel, Italy, Turkey, Ukraine, and the USA. The participants spoke, on average, three languages (M = 3.48, SD = 1.03, min = 1, max = 7). Since the survey was conducted in Russian, we ensured that all of them were fluent speakers of this language (self-rated proficiency in Russian was M = 4.67, SD = 1.23 out of 5). No other personal data except participants' age and gender was collected.

Procedure

The data was collected online using a reliable survey platform (https://www.1ka.si/). The survey began with the consent form approved by the HSE University Ethics Committee. The respondents were informed that participation was voluntary and non-compensated. The survey took approximately 20 minutes. It consisted of socio-demographic questions, a language learning experience questionnaire, a foreign language classroom anxiety scale (FLCAS), and a ten-item personality measure. A language learning experience questionnaire included questions about language repertoire, age of acquisition, and language proficiency self-assessment.

Instruments

Personality Traits Assessment

Participants' personality traits were assessed by a modified version of the Very Brief Measure of the Big-Five Personality Traits for Russian-speaking individuals

developed by Kornilova and Chumakova (2016). The original version of the assessment (Gosling et al., 2003) had a list of ten pairs of adjectives (two pairs representing each personality trait). Each pair of adjectives reflected different poles of the personality traits, one with positive and the other with negative connotations. The participants were asked to rate how closely these combinations matched their personality on a 7-point Likert scale ("I view myself as..."). The assessment tool includes five subscales: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience.

Kornilova and Chumakova (2016) used forward-backward and dual-panel procedures to translate the questionnaire into Russian. Since the original study did not perform the validity checks, Kornilova and Chumakova (Ibid.) collected data from 397 people aged 17 to 51 (M = 24.69, SD = 5.59) to adapt an existing questionnaire and perform validity tests. The results showed that all five subscales demonstrate high internal consistency (α = .62, for extraversion; α = .32, for agreeableness; α = .81, for conscientiousness; α = .70, for neuroticism; and α = .45, for openness to experience). Moreover, the assessment tool possesses high external validity according to both absolute and relative indicators of the model fit indices (S-B χ^2 (26) = 74.99, p < .001, CFI = .93, MFI = .94, RMSEA = .069).

Foreign Language Anxiety Assessment

Participants' FLA was assessed by the FLCAS (Horwitz et al., 1986). This assessment tool measures an individual's level of anxiety when learning a foreign language. The questionnaire consists of 33 5-Likert scale items constituting three sub-scales: test anxiety, communication apprehension, and fear of negative evaluation. Nine questionnaire items (2, 5, 8, 11, 14, 18, 22, 28, 32) were reverse coded. The scores range lies between 33 and 132 points; the results obtained by scoring all 33 items were summarized to obtain the FLA total score. The higher FLA scores indicated the higher levels of anxiety experienced by participants. The FLCAS is the most reliable and valid instrument for measuring FLA (Aida, 1994; Cheng et al., 1999). The FLCAS demonstrated high internal consistency ($\alpha = .93$; Horwitz, 1986). The construct validity checks were also performed. The FLCAS was found to correlate with the Trait scale of the State-Trait Anxiety Inventory (r = .29,p = .002; Spielberger et al., 1983) with the Personal Report of Communication Apprehension (r = .28, p = .063; McCroskey, 1970); with the Fear of Negative Evaluation Scale (r = .36, p = .007; Watson & Friend, 1969); and with the Test Anxiety Scale (r = .53, p = .001; Sarason, 1978).

Results

Descriptive Statistics

Before proceeding with the analysis, the data normality checks were performed. The original data was found to be not normally distributed; therefore, we applied the Box-Cox transformation for the data (Box & Cox, 1964). This family of power

transformations allows us to identify the best transformation based on the value of λ to normalize the data. The transformation was applied to all research variables with the corresponding value of λ . Further analysis will be based on the normalized data. Table 1 illustrates the descriptive statistics (means and standard deviations) and the Pearson correlations between the research variables. The table reveals that the strongest negative and statistically significant relations were found between the components of Big Five traits: neuroticism and extraversion (r = -.137, p < .01); conscientiousness and agreeableness (r = -.299, p < .01); conscientiousness and openness to new experience (r = -.383, p < .01).

Finally, a positive association was found between the components of FLCAS and the Big Five traits. Fear of negative evaluation was positively related to agreeableness (r = .092, p < .05) and negatively related to extraversion (r = -.195, p < .01) and openness to new experience (r = -.199, p < .01). Communication apprehension was negatively related to extraversion (r = -.263, p < .01) and openness to new experiences (r = -.204, p < .01). Test anxiety was also found to be negatively correlated with extraversion (r = -.195, p < .01) and openness to new experiences (r = -.223, p < .01).

Big Five Personality Traits Predicting Fear of Negative Evaluation

To test the first hypothesis, linear regression analysis was performed with Big Five personality traits as predictors and the fear of negative evaluation as an outcome. Table 2 presents the results of this regression analysis. It was found that four personality traits significantly predicted the fear of negative evaluation: positive prediction by neuroticism (β = .019, p < .001), negative prediction by openness (β = -.059, p < .001), and extraversion (β = -.162, p < .001). Predictions by conscientiousness and agreeableness were not significant.

Table 1
Means, Standard Deviations, and Correlations between the Research Variables (n = 452)

	M	SD	1	2	3	4	5	6	7
1. Neuroticism	2.99	1.14	_						
2. Agreeableness	3.15	1.16	.057	_					
3. Extraversion	3.37	.88	137**	039	_				
4. Openness	4.02	1.11	016	.016	023	_			
5. Conscientiousness	4.42	1.01	055	299**	.106*	383**	_		
6. Fear of negative evaluation	39.68	12.31	.212**	.092*	195**	199**	015	_	
7. Communication apprehension	39.14	13.46	.216**	.063	263**	204**	.013	.864**	_
8. Test anxiety	8.19	2.98	.162**	.017	195**	223**	.080	.720**	.728**

^{*} p < .05, ** p < .01, *** p < .001.

Big Five Personality Traits Predicting Communication Apprehension

To test the second hypothesis, linear regression analysis was performed with Big Five personality traits as predictors and communication apprehension as an outcome. Table 3 presents the results of this regression analysis. The finding demonstrated that three personality traits significantly predicted communication apprehension: positive prediction by neuroticism (β = .184, p < .001) and negative prediction by extraversion (β = -.235, p < .05) and openness (β = -.192, p < .001). Predictions by agreeableness and conscientiousness were not significant.

Big Five Personality Traits Predicting Test Anxiety

Finally, linear regression analysis was performed to test the third hypothesis with Big Five personality traits as predictors and the test anxiety as an outcome.

 ${\it Table~2}$ Results of Linear Regression Analysis between Big Five Personality Components and Fear of Negative Evaluation (N = 452)

Predictor	Estimate	SE	SE t p	v	Stand. Estimate	95% Confidence Interval	
				r		Lower	Upper
Neuroticism	.305***	.072	4.229	.000	.019	.163	.446
Agreeableness	.119	.082	1.441	.150	.068	044	.282
Extraversion	349***	.097	-3.587	.000	162	541	158
Openness	384***	.089	-4.328	.000	059	558	209
Conscientiousness	135	.116	-1.167	.244	209	363	.093

Table 3 Results of Linear Regression Analysis between Big Five Personality Components and Communication Apprehension (N = 452)

Predictor	Estimate	SE	t	p	Stand. Estimate	95% Confidence Interval	
						Lower	Upper
Neuroticism	.373***	.090	4.129	.000	.184	.195	.550
Agreeableness	.136	.104	1.313	.190	.061	068	.339
Extraversion	643***	.122	-5.265	.000	235	883	403
Openness	449***	.111	-4.039	.000	192	667	230
Conscientiousness	040	.145	-0.276	.782	014	326	.245

^{*} p < .05, ** p < .01, *** p < .001.

Table 4 shows results of this regression analysis. The results demonstrated that three personality traits significantly predicted the test anxiety: positive prediction by neuroticism (β = .143, p < .01) and negative predictions by extraversion (β = -.182, p < .001) and openness (β = -.193, p < .001). Predictions by agreeableness and conscientiousness were not significant.

Overall, the results demonstrated that openness, neuroticism, and extraversion were significant predictors for all components of FLCAS. Agreeableness and conscientiousness did not significantly predict any components.

Discussion

This study aimed to identify personality traits that contribute to the development of FLA. The results of the current study demonstrated that three out of five personality traits predicted all three FLA components. These are emotional stability/neuroticism, extraversion, and openness to experience. Agreeableness and conscientiousness did not reveal any predictive power of FLA components.

Openness to Experience

We found that openness to experience negatively predicted fear of negative evaluation, test anxiety, and communication apprehension. These findings can be explained by the fact that individuals high in openness are intellectually curious. Openness to new experiences is associated with openness to sensations and emotions and engagement with information (DeYoung et al., 2012). Instead of fear of being negatively evaluated by others, individuals with high openness embrace the challenge of expressing themselves in a foreign language. Hence, these learners are eager to learn and are excited about learning opportunities. These individuals are considered forethought and intelligent (De Raad & Schouwenburg, 1996), which

Table 4
Results of Linear Regression Analysis between Big Five Personality Components and Test Anxiety (N = 452)

Predictor	Estimate	SE	t	p	Stand. Estimate	95% Confidence Interval	
						Lower	Upper
Neuroticism	.188**	.060	3.141	.002	.143	.071	.306
Agreeableness	.028	.069	0.402	.688	.019	108	.163
Extraversion	324***	.081	-3.988	.000	182	483	164
Openness	294***	.074	-3.982	.000	193	439	149
Conscientiousness	.051	.097	0.530	.597	.027	139	.241

^{*} p < .05, ** p < .01, *** p < .001.

might also explain the lack of test anxiety. They enjoy working with semantic and abstract information (DeYoung et al., 2007). These individuals can properly prepare for examinations and take pleasure from the process rather than the anxiety about failing. We can also speculate that openness to experience may negatively predict communication apprehension due to the opportunities social interactions bring. For individuals high in openness, learning a foreign language may be a colossal opportunity to broaden their minds and explore new things while travelling, reading social media, and exchanging ideas with people from other language backgrounds.

Extraversion

Further, we found that extraversion negatively predicted all three components of FLA. These findings could be explained by the fact that extroverted individuals are more talkative, and communication is essential to their lives. It is easier for people with higher levels of extraversion to connect with peers and teachers. As a result, individuals with high extroversion might feel more comfortable practicing a foreign language and, therefore, experience less communication apprehension.

When it comes to fear of negative evaluation and test anxiety, the negative prediction of extraversion might be explained by the positive mindset of these individuals (Gargalianou, 2015). This optimism may influence less fear of negative feedback and the examination context. We also speculate that extroverts may have a more positive self-image that supports them during evaluation. These findings align with a study by Brown, Robson, and Rosenkjar (2001). They found that people with high extroversion were generally less anxious than those with lower scores. It was suggested that extraversion was associated with a communication-oriented context, making learning a language more comfortable. However, Dewaele (2013) reported only a moderate relationship between this personality trait and foreign language classroom anxiety. More specifically, it was only found in one sub-group. The present study suggests that extraversion is the strongest significant predictor among other personality traits for all FLA components.

Neuroticism

We also found neuroticism to be a positive predictor of all three components of FLA. A possible explanation of this finding comes from an observation that people with high neuroticism tend to be more irritable and lack impulse control (Chamorro-Premuzic & Furnham, 2003). Regarding fear of negative evaluation, we speculate that these characteristics might lead to an inadequate reaction to possible minor corrections of mistakes. Even when appropriately communicated, the feedback might be perceived poorly. For communication apprehension, lacking impulse control makes social interactions more challenging since the anxious state becomes evident to an interlocutor. It might increase the fear connected to the communication context if it is hard to avoid negative emotions when speaking a foreign language.

Concerning test anxiety, irritability and lack of impulse control might distract a learner while completing a language test, not letting them concentrate on specific tasks. Being high in neuroticism may also lead to being worried about making mistakes in a foreign language learning context. This explains the predictive nature of neuroticism for both test anxiety and fear of negative evaluation. A focus on potential mistakes and misunderstandings distracts learners from the actual learning and increases their anxiety levels. Fear of negative evaluation and test anxiety may also be connected to low self-esteem (Marlar & Joubert, 2002). These findings were supported by Dewaele (2013), revealing a significant link between neuroticism and foreign language classroom anxiety. It is worth noting that this relationship was found for adult learners in the second, third, and fourth languages.

Some of the characteristics associated with high neuroticism are self-consciousness, vulnerability, and even hostility (Barrick & Mount, 1991). These traits may be the ground for communication apprehension. Moreover, Eysenck and Eysenck (1975) also revealed that individuals with high neuroticism tend to have low self-respect, which may be a barrier to social conduct.

Agreeableness

According to the study results, agreeableness did not predict any of the FLA components. These findings are consistent with the studies conducted by Babakhouya (2019), Chew and Dillon (2014), and Asmali (2017). Interestingly, the study by Chamorro, Ahmetoglu, and Furnham (2008) revealed a negative relationship between test anxiety and agreeableness. Bialayesh and colleagues (2020) also found a significant positive relationship between agreeableness and language anxiety. Based on the results of this study, we speculate that even though agreeableness as a personality trait may be beneficial in a social context, it does not predict foreign language anxiety due to its complexity and specific contexts of learning grammar rules and training in correct pronunciation.

Consciousness

It should also be highlighted that conscientiousness, according to the results of this study, did not predict any components of FLA. These findings contradicted the previous research suggesting that there was a negative relationship between test anxiety, in particular, and conscientiousness (Chamorro-Premuzic et al., 2008). A few studies (e.g., Blickle, 1996; Poropat, 2009; De Raad & Schouwenburg, 1996) revealed a correlation between conscientiousness and academic achievement. This could be explained by the fact that more conscientious learners are more inclined to set goals and make efforts in the foreign language learning process. According to Šafranj and Zivlak (2019), individuals with higher levels of conscientiousness are more likely to experience language anxiety since they are more worried about an impression they make. Although conscientiousness is connected to academic achievement, we suggest that it may not play a predictive role in any of the FLA components. We could speculate that being conscientious and responsible and get-

ting ready for exams and lessons does not always help to overcome foreign language anxiety. One can do their best to learn the rules and vocabulary and still fail when talking to someone in a foreign language or taking a language exam.

Limitations

The current research has some limitations. First, we used self-reported scales to measure FLCAS and the Big Five when collecting the data. This could lead to inaccuracy of measurements since some respondents may have tendencies to give socially desirable answers. Second, we did not control for a language as an independent variable that a respondent is learning. The levels of FLCAS may vary depending on the specific language or language group. Third, the study's findings might be compromised by cultural bias. Note that we recruited a Russian-speaking sample only. Based on the reviewed literature, the levels of FLCAS might vary across cultures. Therefore, future studies need to consider the cultural context and compare the levels of FLCAS among different cultures.

Conclusion

The results of this study provided additional evidence about personality traits that could predict FLA. Based on these findings, we propose several practical implementations. Knowing the predictive nature of students' emotional stability helps teachers create an anxiety-free learning environment. For this purpose, for example, teachers should pay special attention to the difficulty levels of given tasks. A suitable level of difficulty will allow students who are high on neuroticism to acquire greater confidence in their knowledge, which would reduce the level of anxiety.

In addition, understanding the personality traits could allow teachers to control students' levels of FLA more flexibly. Based on these findings, tutors may individually choose the assessments and evaluation instruments, reflecting a student's personality. For example, for individuals with higher levels of extraversion, group work in a classroom that requires interaction with other students may be more suitable.

Further, we found that conscientiousness did not predict FLA at all. This raises the question about the nature of the interaction between conscientiousness and FLA. In further research, we plan to test the mediating effect of FLA on the link between conscientiousness and academic achievement.

The research on the sources of FLA is beneficial for both learners and teachers because higher levels of anxiety might lead to weak performance and/or skipping lessons (Dewaele & Thirtle, 2009). Further research should focus on the other factors that account for FLA development to decrease the levels of anxiety among learners.

References

- Abbasova, O. A., & Shavyrina, A. A. (2019). Vliyanie yazykovoi trevozhnosti na speshnost' izucheniya inostrannogo yazyka [The influence of language anxiety on the success of learning a foreign language]. Sovremennyi Pedagogicheskii Vzglyad, 2(27), 21–28.
- Asmali, M. (2017). Big Five personality traits and test anxiety among English as a foreign language learners. *Iğdır University Journal of Social Sciences*, 11, 1–21.
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78, 155–168.
- Aydın, S. (2008). An investigation on the language anxiety and fear of negative evaluation among Turkish EFL learners. *Asian EFL Journal*, 30(1), 421–444.
- Aydın, S., Yavuz, F., & Yeşilyurt, S. (2006). Test anxiety in foreign language learning. *Journal of Social Sciences Institute Balıkesir University*, 9(16), 145–160.
- Babakhouya, Y. (2019). The Big Five personality factors as predictors of English language speaking anxiety: A cross-country comparison between Morocco and South Korea. *Research in Comparative and International Education*, 14(4), 502–521. https://doi.org/10.1177/1745499919894792
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1–26. https://doi.org/10.1111/j.1744-6570.1991.tb00688.x
- Bialayesh, S., Homayouni, A., Nasiri Kenari, M., & Shafian, Z. (2020). Relationship between personality traits with language anxiety among bilinguals. *European Psychiatry*, 41(S1). https://doi.org/10.1016/j.eurpsy.2017.01.334
- Blickle, G. (1996). Personality traits, learning strategies, and performance. *European Journal of Psychology*, 10, 337–352.
- Box, G. E. P., & Cox, D. R. (1964). An analysis of transformations. Journal of the Royal Statistical Society, B, 26, 211–234.
- Brown, J. D., Robson, G., & Rosenkjar, P. R. (2001). Personality, motivation, anxiety, strategies, and language proficiency of Japanese students. In Z. Dornyei & R.W. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 361–398). Honolulu: University of Hawaii, Second Language Teaching and Curriculum Centre.
- Burger, J. M. (2011). Personality (8th ed.). Belmont, CA: Wadsworth, Cengage Learning.
- Chamorro-Premuzic, T., Ahmetoglu, G., & Furnham, A. (2008). Little more than personality: Dispositional determinants of test anxiety (the Big Five, Core Self-evaluations, and Self-assessed Intelligence). Learning and Individual Differences, 18, 258–263. https://doi.org/10.1016/j.lindif.2007.09.002
- Chamorro-Premuzic, T., & Furnham, A. (2003). Personality traits and academic examination performance. *European Journal of Personality*, 17(3), 237–250.
- Cheng, Y. S., Horwitz, E. K., & Schallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning*, 49(3), 417–446. https://doi.org/10.1111/0023-8333.00095
- Chew, K. H. P., & Dillon, D. B. (2014). Statistics anxiety and the Big Five personality factors. *Social and Behavioral Sciences*, 112, 1177–1186. https://doi.org/10.1016/j.sbspro.2014.01.1282
- Cook, V. (1991). Second language learning and language teaching. London: Edward Arnold.
- De Raad, B., & Schouwenburg, H. C. (1996). Personality in learning and education: A review. *European Journal of Personality*, 10(5), 303–336.

- Dewaele, J. M. (2002). Psychological and sociodemographic correlates of communicative anxiety in L2 and L3 production. *International Journal of Bilingualism*, 6(1), 23–38. https://doi.org/10.1177/13670069020060010201
- Dewaele, J. M. (2013). The link between foreign language classroom anxiety and psychoticism, extraversion, and neuroticism among adult bi- and multilinguals. *The Modern Language Journal*, 97(3), 670–684. https://doi.org/10.1111/j.1540-4781.2013.12036.x
- Dewaele, J.-M., & Thirtle, H. (2009). Why do some young learners drop foreign languages? A focus on learner-internal variables. *International Journal of Bilingual Education and Bilingualism*, 12, 635–649.
- DeYoung, C. G. (2003). Sources of openness/intellect: Cognitive and neuropsychological correlates of the fifth factor of personality. *Journal of Personality*, 73(4), 825–858.
- DeYoung, C. G., Grazioplene, R. G., & Peterson, J. B. (2012). From madness to genius: The Openness/Intellect trait domain as a paradoxical simplex. *Journal of Research in Personality*, 46(1), 63–78. https://doi.org/10.1016/j.jrp.2011.12.003
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93(5), 880–896. https://doi.org/:10.1037/0022-3514.93.5.880
- Ellis, R. (2008). The study of second language acquisition (2nd ed.).Oxford: Oxford University Press.
- El-Zahhar, N. E., & Hocevar, D. (1991). Cultural and sexual differences in test anxiety, trait anxiety and arousability: Egypt, Brazil, and the United States. *Journal of Cross-Cultural Psychology*, 22(2), 238–249. https://doi.org/10.1177/0022022191222005
- Eysenck, H. J., & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire*. London: Hodder and Stoughton.
- Federmeier, K. D., Jongman, S. R., & Szewczyk, J. M. (2020). Examining the role of general cognitive skills in language processing: A window into complex cognition. *Current Directions in Psychological Science*, 29(6), 575–582. https://doi.org/10.1177/0963721420964095
- Gargalianou, V. (2015). The effects of gender and personality on foreign language anxiety among adult multilinguals. Antwerp: University of Antwerp.
- Gargalianou, V., Muehlfeld, K., Urbig, D., & van Witteloostuijn, A. (2016). Foreign language anxiety in professional contexts: A short scale and evidence of personality and gender differences. *Society* and Business Review, 17, 195–221. https://doi.org/10.1007/s41464-016-0007-6
- Gass, S., & Selinker, L. (1994). Second language acquisition: An introductory course. Hillsdale, NJ: Lawrence Erlbaum.
- Gosling, S. D., Rentfrow, P. J., & Swann Jr., W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37(6), 504–528. https://doi.org/10.1016/S0092-6566(03)00046-1
- Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *Modern Language Journal*, 86, 562–570. https://doi.org/10.1111/1540-4781.00161
- Hair, E., & Graziano, W. (2003). Self-esteem, personality and achievement in high school: A prospective longitudinal study in Texas. *Journal of Personality*, 71(5), 971–994.
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a Foreign Language Anxiety Scale. *TESOL Quarterly*, 20(3), 559–562. https://doi.org/10.2307/3586302
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. Modern Language Journal, 70(2), 125–132.

- Horwitz, E. K., & Young, D. J. (Eds.). (1991). Language anxiety. From theory and research to classroom implications. Englewood Cliffs, NJ: Prentice Hall.
- Humphreys, M. S., & Revelle, W. (1984). Personality, motivation, and performance: a theory of the relationship between individual differences and information processing. *Psychological Review*, 91, 153–184
- Khosravi, M., & Bigdely, I. (2008). The relationship between personality factors and test anxiety among university students. *Journal of Behavioral Sciences*, 12(1), 13–24.
- Koch, A. S., & Terrell, T. D. (1991). Affective reaction of foreign language students to Natural Approach activities and teaching techniques. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp. 109–126). Englewood Cliffs, NJ: Prentice Hall.
- Kornilova, T. V., & Chumakova, M. A. (2016). Development of the Russian version of the brief Big Five questionnaire (TIPI). *Psikhologicheskie Issledovaniya*, 9(46). https://psystudy.ru/index.php/num/article/view/480 (in Russian)
- Lufi, D., Okasha, S., & Cohen, A. (2004). Test anxiety and its effect on the personality of students with learning disabilities. *Learning Disability Quarterly*, 27, 176–184.
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15, 3–26.
- Marlar, M. R., & Joubert, C. E. (2002). Liking of personal names, self-esteem and the Big Five inventory. *Psychological Reports*, *91*(2), 407–410. https://doi.org/10.2466/PR0.91.6.407-410
- McCroskey, J. C. (1970). Measures of communication-bound anxiety. Speech Monographs, 37, 269-277.
- McIlroy, D., Bunting, B., & Adamson, G. (2000). An evaluation of the factor structure and predictive utility of a test anxiety scale with reference to students' past performance and personality indices. *British Journal of Educational Psychology*, 70(1), 17–32. https://doi.org/10.1348/000709900157949
- Murray, R. B., & Mount, M. K. (1996). Effects of impression management on self-deception on the predictive validity of personality constructs. *Journal of Applied Psychology*, 81(3), 261–272. https://doi.org/10.1037/0021-9010.81.3.261
- National Standards in Foreign Language Education Project. (1996). Standards for foreign language learning: Preparing for the 21st century. Lawrence, KS: Author.
- Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (2000). Cognitive, affective, personality, and demographic predictors of foreign-language achievement. *The Journal of Educational Research*, 94, 3–15. https://www.jstor.org/stable/27542298
- Poropat, A. E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322–338. https://doi.org/10.1037/a0014996
- Price, M. L. (1991). The subjective experience of foreign language anxiety: Interview with highly anxious students. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp. 101–108). Englewood Cliffs, NJ: Prentice Hall.
- Šafranj, J., & Zivlak, J. (2019). Effects of big five personality traits and fear of negative evaluation on foreign language anxiety. *Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje*, 21(1), 275–306.
- Sarason, I. G. (1978). The test anxiety scale: Concept and research. In C. D. Spielberger & I. G. Sarason (Eds.), *Stress and anxiety* (Vol. 5, pp. 193–216). Washington, DC: Hemisphere.
- Shaked, Y. (1996). During the test I am in a shock. Marive [Israeli daily newspaper], A1, 6-7.
- Shomoossi, N., Kassaian, Z., & Ketabi, S. (2009). Variation of test anxiety over listening and speaking test performance. *Iranian Journal of Language Studies*, 3(1), 65–78.

- Smyth, F. (1995). Standardized testing in college admission: How the act and sat are used and compared. *Journal of College Admission*, 148, 24–31.
- Spielberger, C. D. (1972). Current trends in theory and research on anxiety. In C. D. Spielberger (Ed.), *Anxiety: Current trends in theory and research* (pp. 3–19). New York, NY: Academic Press.
- Spielberger, C. D., Anton, W. D., & Bedell, J. (1976). The nature and treatment of test anxiety. In M. Zuckermann, & C. Spielberger (Eds.), *Emotions and anxiety: New concepts, methods and applications* (pp. 317–344). Hillsdale, NJ: Lawrence Erlbaum.
- Spielberger, C. D., Gorsuch, R., Lushene, R., Vagg, P., & Jacobs, G. (1983). *Manual for the state-trait anxiety inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Toegel, G., & Barsoux, J. L. (2012). How to become a better leader. MIT Sloan Management Review, 53(3), 51–60.
- Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448–457.
- Young, D. J. (1991). Creating a low-anxiety classroom environment: What does the language anxiety research suggest? *Modern Language Journal*, 75(4), 426–437.
- Yu, C., & Ballard, D. H. (2007). A unified model of early word learning: integrating statistical and social cues. *Neurocomputing*, 70, 2149–2165. https://doi.org/10.1016/j.neucom.2006.01.034