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CULTURAL DIMENSIONS OF OPENNESS AS A PERSONALITY FACTOR

Case Study

Keywords
Personality,
Performance,
A culture of Openness

Abstract

The article outlines the relationship between Openness as a dimension of personality and academic performance. Openness along with other dimensions of Extraversion is a significant predictor of academic performance. The data showed that there are significant differences in the level of Openness between students from specific faculties. The sample consisted of 751 Romanian students (222 men and 529 women) from a Romanian university. Furthermore, the article discusses the limitations and implications of this research.

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OVERVIEW OF STUDIES

Openness as a personality factor has a great importance in the structure of the five-factor model of personality (FFM). Also, the five-factor model of personality variation has been replicated across a range of human societies, suggesting that FFM is a human universal. There are cross-cultural tests of the FFM in over 50 societies across six continents. Openness is one of the five personality factors of the Big Five personality theory. It indicates how open-minded a person is and individual differences in Openness are related to differences in the fluidity of their cognitive structure (McCrae, 1996). The author mentioned about six facets of Openness: "vivid fantasy, artistic sensitivity, depth of feeling, behavioral flexibility, intellectual curiosity and unconventional attitudes" (McCrae 1996, p. 323).

A cross-cultural study showed that there is a genetic influence on the appearance and development of personality factors, including the Openness factor. Yamagata and his colleagues (2006) conducted a broad study that highlighted the genetic influence on the formation and development of personality factors. Thus, by examining 1,209 monozygotic and 701 dizygotic twin pairs from Canada, Germany and Japan, they suggested that the FFM has a solid biological basis and may represent a common heritage of the human species. Also, this study looked at whether the universality of the five-factor model operationalised by the Revised NEO Personality Inventory is due to genetic influences that are invariant across diverse nations.

The FFM of personality is composed of five distinct factors that are usually named Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. Extraversion refers to a higher degree of sociability, energy, assertiveness and talkativeness (loquacity). Neuroticism means the degree of emotional stability. Openness to experience describes those who are interdependent minded and intellectually strong. Conscientiousness means being disciplined, organized and achievement oriented. Finally, Agreeableness refers to being good-natured, helpful, trustful and cooperative.

According to Barrick et al. (2001), Openness, Extraversion and Agreeableness did not predict overall work performance, but they did predict success in specific occupations or relate to specific criteria.

The results of a study conducted by Rothman & Coetzer (2003, p. 72) confirmed that "Openness to experience is related to task performance and creativity". Also, employees who are open to experiences show "an active imagination, aesthetic sensitivity, attentiveness to inner feelings and a preference for variety, all of which explain why they are rated higher on their performance and creativity at work" (idem).

Along with Openness, Assertiveness plays a key-role when it comes to discussing the relationship between personality factors and professional performance. In the Revised NEO Personality Inventory, Assertiveness is a dimension of Extraversion factor, together with Warmth, Gregariousness, Activity, Excitement Seeking and positive emotion.

Although many studies have shown that Assertiveness contributes to the development of professional performance, there are some studies which have shown that Assertiveness could have a negative impact on professional performance. For example, in the Korean academic environment, Assertiveness can also have a negative impact on the efficiency of communication. Jing Yu Zhang and Jung Kee Kim from Hanyang University, South Korea (2017) have determined 7 students' communication motives (participatory, relational, sycophancy, excuse making, functional, self-pursuit and reinforcing motives) on 208 Korean students from two Confucius institutes.

The authors have found that educational effects have maintained a positive interrelation with instructors' responsiveness and versatile style. But negative interrelation was found in the assertiveness style. Also, there is a positive correlation between students' communication motives and educational effects generally. The instructors' versatile style and students' participatory motive have positively impacted on the satisfaction formation process. Responsiveness, versatile style and participatory motive have positively impacted on learning effects, while the assertiveness style and sycophancy motive have resulted in a negative impact. The researchers concluded that a more in-depth study on research issues is needed.

However, a plausible explanation for the results obtained in this study could be found in a predominantly collectivist culture (Hofstede et al., 2010; Markus & Kitayama, 1991; Markus & Kitayama, 2013) where factors such as high / low power distance would play a major influence.

In cross cultural psychology, many authors argued that Extraversion, Openness items have shown different factor structures in East Asian societies because they are more collectivist cultures in which interpersonal affiliation and obedience to authority are more normative (Cheung et al., 2008; Cheung & Leung, 1998). Also, an illustrative example in this case is given by H. Yamada (1989) mentioned in Markus & Kitayama (1991, p. 224): "American parents who are trying to persuade their children to eat their suppers are fond of saying: think of the starving kids in Ethiopia, and appreciate how lucky you are. On the other hand Japanese parents are likely to say: think about the farmer who worked so hard to produce this rice for you; if you don't eat it,

he will feel bad, for his efforts will have been in vain".

The developmental differences between personality factors related to culture (predominantly individualist or collectivist culture) were not included in our previous research goals. However, in our past teaching activities with students from different cultures, we were able to easily detect significant differences in students' self-perceptions. For example, the answers to the question "Who am I?" varied significantly in groups of Japanese, Romanian or Egyptian students. The Egyptian students from a university in Cairo described themselves as being more "believer", "faithful", "correct", "self-confident", "full of hope" and "altruistic" in relation to others. In Osaka, Japan, students described themselves as being in the first place: "sister"/ "brother" (the most common answer we met), "son" / "daughter", and responses with personal characteristics such as "student", "friend"/ "good friend" or "motivated student". The Romanian students described themselves as being first: "independent person", "goal-oriented", "optimistic / pessimistic person"; the "student" description is left on the last position most of the time by Romanian students. Also, the description "friend" / "girlfriend" was a much more common answer than the description "son"/ "daughter".

As far as these aspects are concerned, the authors consider that a more extensive research in the whole of Romania is needed to highlight different forms of Romanian self and personality structure. For the moment, it is difficult to say that a Romanian student has rather an "independent view of self" and not an "interdependent view of self" (Markus & Kitayama, 1991, p. 226).

How much openness or assertiveness do young Romanian students invest in their professional training and especially in their preparation for life? The research below attempts to provide some answers to this question.

PURPOSE

The current research aimed to advance our understanding of the relationship between Openness as a personality factor, Assertiveness as a dimension of the Extraversion factor and the academic performance of Romanian students.

Hypothesis
1. The authors assumed that there are significant differences between students from different faculties, in terms of the level of Openness.
2. The authors assumed that Conscientiousness, Openness and Assertiveness are simultaneous predictors of the "average of grades" (dependent variable).

MATERIALS AND METHODS

The sample consisted of 751 Romanian students (222 male, 529 female) from a Romanian university. When choosing the students, the authors used the simple random sampling technique. All research was conducted according to the ethical and deontological rules presented in the General Ethical Protocol of the Romanian University and mentioned in Deontological Code of the Psychologist, from the Romanian Psychologists' Association.

The students completed the survey individually under the supervision of an interviewer. Prior to conducting the survey, participants were informed about the purpose of the study. The respondents' confidentiality was also assured.

In investigating the personality factors the authors used the NEO PI-R Personality Inventory (Costa & McCrae, 1992; Costa & McCrae, 2009) and the semi-structured interview technique mainly regarding the student's academic behavior and exam data. Academic performance was rendered operational by calculating the average score of each student throughout the entire period of academic education. In order to test the research' assumptions we used several statistical methods (ANOVA and multiple regression) processed in SPSS 23 program.

RESULTS AND DISCUSSIONS

Regarding the factor "Openness", the authors hypothesized that there were significant differences in the level of Openness between students from specific faculties (Hypothesis 1). The data showed significant differences in the level of Openness between students from specific faculties ($r = -.118^{**}$; $p<.001$). Although the correlation between the two variables is significant at $p<.001$, the correlation is weak. This result supports Hypothesis 1. The authors assumed that the level of correlation was weak due to the diversity of occupational profiles that made up the research sample; also they mentioned that the research sample was made up of students from faculties of medicine, law, sports, mathematical sciences, computer science, theatrical arts, theology, humanities and social sciences.

According to McCrae (1996, p. 323), there are six facets of Openness: "vivid fantasy, artistic sensitivity, depth of feeling, behavioral flexibility, intellectual curiosity and unconventional attitudes". Also, individual differences in Openness are related to differences in the fluidity of their cognitive structure (McCrae, 1996). For this reason, a more in-depth research would be useful and necessary in this case, because the methodology of the study did not include psychological instruments for assessing cognitive abilities. Each assessment was preceded by a psychological interview regarding the academic

behavior in general; inter-individual differences on cognitive, perceptual and motor skills were identified, notably how to engage in a task, the attention span and quality and psychomotor behavior in general, but in the absence of specific tools for assessing cognitive and motor skills, the authors were not able to draw valid conclusions on the relationship of Openness factor and the cognitive abilities.

It is very likely that the abilities to take in information are very different in the case of students, which causes a high variability of the results and implicitly a weak correlation between the "faculty" variable and the Openness factor. In this case, it is also possible to find different levels of professional motivation and/or engagement in a task – the questionnaire - or the degree of fatigue accumulated after the academic day; those factors could have a significant impact on the results.

It was postulated (McCrae, 1994) that an open person with a higher degree of tolerance for ambiguity can access more thoughts and feelings unconsciously at the same time; this makes for intense and deep experiences. Relying on this assumption, an instrument for assessing emotional behavior would be useful, such as a valid instrument which measures the emotional effort, the emotional dissonance, and also a recording of frequency for certain emotions; this would also increase the external validity of measurements for the Openness factor.

Also, the results showed significant correlations between Openness and Extraversion (r =.421** ; p<.001); it is very likely that a student with a high level of Openness tends to behave, act, think, and feel in an extraverted way. The correlation between Openness and Extraversion has led us to carefully analyze this aspect and to identify which dimension of Extraversion would be strongly correlated with the Openness factor.

Conscientiousness, Openness, and Assertiveness act as simultaneous predictors (F= 14.883; sig. 0.000) of academic achievements (see table no 1). In our analysis the highest average for Assertiveness was recorded by the Law School students, followed by students from the Faculty of Social and Human Sciences (see table no 3).

The analysis of the connection between Assertiveness and the other factors is outlined below, with emphasis on some facets of the Openness factor. Among the factors, Conscientiousness recorded the highest average (mean = 124.72; std. dev. 19.34), followed by Agreeableness (mean = 111.54; std. dev. 17.77), Openness (mean = 111.83; std. dev. 15.32) and Extraversion (mean = 111.60; std. dev. 17.34). The sub-dimension "Warmth" of the Extraversion factor got the highest score (mean = 21.25; std. dev. 3.875) in relation to "Assertiveness" (mean = 16.36; std. dev. 4.51) and "Positive emotions" (mean = 20.06;

std. dev. 3.98). Also, on 751 students, the data showed a significant main effect (F = 73.202; sig. 0.000^a) of the two variables Warmth and Positive Emotions on the dependent variable "Assertiveness" (see table no. 2) . We can conclude that Positive Emotions and Warmth are relevant predictors of Assertiveness as expressed by the participants. So, the students who tend to express a high level of Positive emotions in their general academic behavior (β = .264; sig. 0,000) along with a high level of Warmth (β = .198; sig. 0,000) tend to finally develop an academic behavior characterized by a high level of Assertiveness.

LIMITATIONS AND FUTURE CONSIDERATIONS

As for the limitations of our research, the authors identified the following issues: first of all, the characteristics of the population from which the research sample was extracted partially conforms to the characteristics of the WEIRD population (Henrich et al., 2010); the participants are European young educated men and women; they come from a democratic and industrialized country, with an optimal living standard. It is very possible to have different results if the research sample should consist of young people from a developing country, with limited access to education. Also, possible discriminatory behaviors existing in the participants' experience or strong stereotypes and prejudices between males and females regarding the academic life would have a significant influence on the results of the study.

CONCLUSION

The two hypotheses of the study were confirmed. Although there are many studies that have already identified a model of the "Big - Three" factors in relation to job performance, in the case of the Romanian students there are at least 3 factors and facets from the fourth and fifth factor of the model that directly are related to their academic achievements.

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ANNEXES

Table no 1. Simultaneous predictors
(Conscientiousness, Openness, Assertiveness) of "average of grades" (dependent variables)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	55.920	3	18.640	14.883	.000[a]
Residual	935.563	747	1.252		
Total	991.483	750			

a. Predictors: (Constant), Conscientiousness, Openness, Assertiveness

b. Dependent Variable: Average of grades

Table no. 2. Multiple regression's coefficients for Assertiveness

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	5.463	.924		5.912	.000
Positive Emotions	.299	.044	.264	6.724	.000
Warmth	.231	.046	.198	5.050	.000

a. Dependent Variable: Assertiveness

Table no.3 Distribution of Assertiveness (mean and Std. deviation) according to students' assignments in the faculties

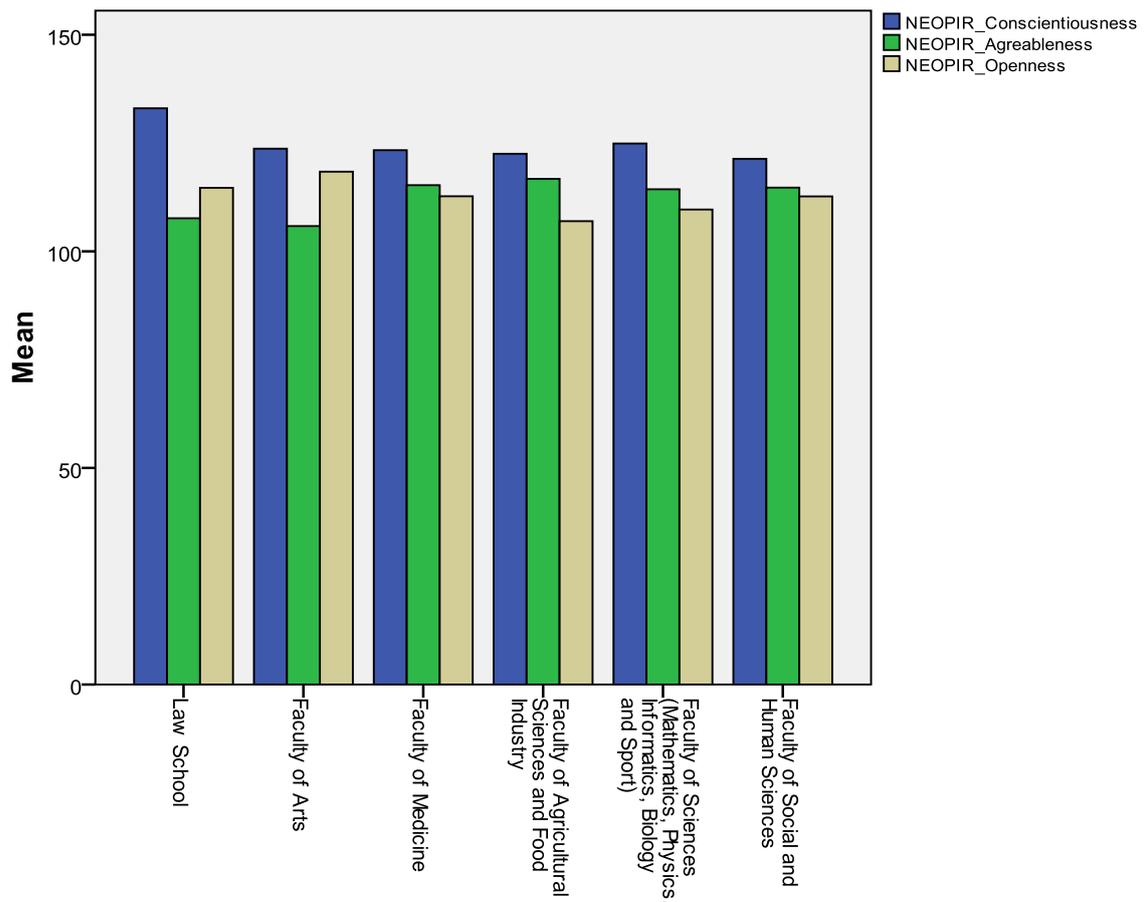| Faculty	Mean	N	Std. Deviation
Law School	18.44	108	4.346
Faculty of Arts	16.38	52	4.939
Faculty of Medicine	15.58	252	4.383
Faculty of Agricultural Sciences and Food Industry	16.08	129	3.999
Faculty of Sciences (Mathematics, Physics, Computer science, Biology and Sport)	16.26	139	4.211
Faculty of Social and Human Sciences	16.62	71	5.455
Total	16.36	751	4.516

Figure 1. Differences in expressing Conscientiousness, Agreeableness and Openness according to students' faculties