

Characteristics of Personality in People with Different Talents

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Abstract. The five basic characteristics of personality were analyzed in relation to the expression of different talents in 945 persons aged 16-90, 70.9% of whom were women and 29.1% - men. The measures used include Goldberg's "Markers of the Big Five Factors" questionnaire, adapted to Bulgarian culture, as well as self-reported data about musical talent and talent in three other domains with proven manifestations and achievements: art, writing or sports. The analysis of the relationships between the Big-Five personality factors and talents found that people with musical talent had higher levels of Agreeableness and Intellect/Imagination. Participants with other talents had higher values of Extraversion and Intellect/Imagination.

Key words: big-five personality factors, musical talent, other talents.

Introduction

With his behavior, worldview, and attitude to the surrounding world, humans could reasonably be seen as an "ecological factor". They influence the environment through their decisions, planning and concrete actions. People's responsibility, their goodwill and openness to the world and nature could be characterized by studying their personality traits, as well as by looking at the complex relationships between personality traits and other individual features that have a significant inheritance component. Such studies are at the borderline of psychology and genetics, and mentioned interdependencies are a part of the subjects of behavioral genetics.

The complex human behavior, including temperament and personality

characteristics, is the subject of different investigations aimed to describe both their multifaceted phenotypic expression and their relationship with well-studied mechanisms of the genetic constitution. It is widely recognized that human behavior depends on an interaction between a multitude of genetic and environmental factors. The basic characteristics of the personality, the approaches to their characterization and their frequency of expression in different human populations have been studied by many authors (McCRAE & JOHN, 1992; GOLDBERG, 1990; 1992; 2001; COSTA & McCRAE, 1992a, b, 2008; GOLDBERG *et al.*, 2006; ALEXANDROVA-KARAMANOVA, 2016). At the same time, complex psychogenetic studies as a whole

are presented in works of BORINSKAYA & ROGAEV (2000), HILL *et al.* (2002), BAKER (2004), LUCHININ (2005).

The complex impact of genetic factors and environmental factors on the manifestation of musical talent and other talents has excited scientists for a long time (SHOCKLEY, 1957; PRICE, 1963; LYKKEN, 1982; 1998; LYKKEN *et al.*, 1992; WALLER *et al.*, 1993; SIMONTON, 1986; 1987; 1988; 1997; 1999; 2001; 2005; DRAYNA *et al.*, 2001). A pioneer in the field was Francis GALTON, who in 1869 described studies dedicated to the genetics of the talent, and the relationships between heredity and talents. Although such studies would enrich scientific information on the multifactorial bases of complex behavioral-genetic characteristics such as personality, temperament or talents, for example, in Bulgaria they are almost absent (IVANOVA *et al.*, 2017a, b). This motivated the present study - to explore by appropriate statistical approaches possible dependencies between the basic characteristics of personality and the manifestation of different talents in the field of music, art, writing or sports.

Materials and Methods

A total of 945 individuals (70.9% female and 29.1% male) with average age of 32.3 years were included in this study. The sample was collected at random with voluntary participation in the study and this determines the difference in male and female representation. Among the studied population, 68.1% were young people - up to 35 years of age. The Big-five basic characteristics of personality (Extraversion, Agreeableness, Conscientiousness, Emotional stability and Intellect/Imagination) were analyzed by Goldberg's "Markers of the Big Five Factors" questionnaire (GOLDBERG, 1990, 1992), adapted to Bulgarian culture (ALEKSANDROVA-KARAMANOVA, 2016). For each one of the five traits, participants were categorized into one of five groups according to their score: (1) low expression of the trait;

(2) rather low expression of the trait; (3) in the middle; (4) rather high expression of the trait; (5) high expression of the trait.

Self-reported questionnaire data about manifested talents were also collected. On the basis of the data presented in the completed questionnaires, the participants were classified into two groups - with musical talent and with other talents. The second group was formed mainly by participants showing talents other than musical or having the performance of two or three different talents, such as dancing and sports, acting and dancing, writing and painting, etc. Only proven manifestations and achievements in the field of music, art, writing, or sports certified by diplomas, awards and other documents requested by the participants were included in the statistical analysis which was done by means of the SPSS software package (version 2). To identify possible statistically significant associations between the basic features of the personality and the musical talent or other talents, descriptive statistic and independent t-test was performed.

Results and Discussion

It is known that humans create a rich variety of music, that most of them enjoy music in some form. The connection between human, nature and art in all its dimensions is significant and tangible. In fact, music and the other arts are interwoven in the complicated relationships between the persons and nature as an environment, that the ability to perceive and create art is present in all human societies known to date.

The results of our study showed that 24.6% of the participants had a musical talent, manifested as composing, singing, or playing a musical instrument, and 35.3% of the participants had other talents, different than musicals, manifested independently or in combinations including fine arts, literature and poetry, dancing, and sports. The mean values of the five personality traits showed that Agreeableness was most pronounced, followed by Conscientiousness

and Intellect/Imagination. The lowest values had Emotional stability (i.e. high Neuroticism was observed). Regarding groups of persons with high and somewhat high expression of the respective personality traits, 45.2% were agreeable (or somewhat

agreeable); 64.1% were Conscientious (or somewhat Conscientious); 44.3% had high or somewhat high Intellect/Imagination; 21.4% were (somewhat) extraverted and 33.0% were (somewhat) emotionally stable (Table 1).

Table 1. Legal documents in the contemporary Bulgarian and European legislation, determining the conservation status of the registered species in the current study.

Personality factors > Level of expression of the trait V	Extraversion N/%	Conscientiousness N/%	Agreeableness N/%	Emotional Stability N/%	Intellect/Imagination N/%
Low expression	360/39.9	47/5.1	122/13.3	226/24.8	118/13.0
Rather low expression	178/19.5	97/10.6	173/18.8	208/22.9	169/18.6
In the middle	181/19.8	184/20.1	208/22.7	176/19.3	219/24.1
Rather high expression	102/11.1	222/24.3	192/20.9	120/13.2	180/19.8
High expression	94/10.3	364/39.8	223/24.3	180/19.8	223/24.5
Total	915/100	914/100	918/100	910/100	909/100

The analysis of the relationships between the basic characteristics of personality and talents established that people with musical talent had higher levels of Agreeableness and Intellect/Imagination. The found Significances were 0.035 and 0.001, respectively (Table 2.) The high Agreeableness of participants appearing in the field of music may reflect their desire to connect with people through music, and to give joy, harmony, etc. to others by creating music. High Intellect/Imagination probably reflects the high creativity and creative potential of the persons with musical talent and their ability to master / improve their musical skills. Participants with other talents had higher values of Extraversion and Intellect/Imagination. The found Significances were 0.016 and 0.000, respectively (Table 2.). The association with Intellect/Imagination is analogous to that of musical talent. The relationship with Extraversion is likely to indicate the desire

for public appearances / an audience, which is characteristic of performers, authors, athletes.

Studies with such a complex design are rare, and this is the reason our results could not be compared to other literature information. Data obtained in our study show higher levels of expression of the basic personality characteristics of Conscientiousness, Agreeableness and Intellect/Imagination and lower levels of Extraversion and Emotional stability expression. At the same time, a relatively high percentage of the studied individuals (24.6% and 35.3) show their talents in the field of music and other arts, which is an evidence of their creative potential.

Conclusions

Higher levels of expression of Conscientiousness, Agreeableness and Intellect / Imagination and lower levels of Extraversion and Emotional stability have been

obtained in this study. People with musical talent had higher levels of Agreeableness and Intellect / Imagination. Participants with other talents had higher values of Extraversion and Intellect / Imagination. The relationships

between the individual creative and personal basic characteristics could be used to solve problems related to education or to reveal opportunities for personal self-improvement and wellbeing.

Table 2. Significant associations between the musical talent and other talents and the Big-five personality traits in the whole sample: results from the t-test.

		Musical talent			
Personality Factor		N	Mean	t	Sig.
Extraversion	presence	194	33.76	1.251	.211
	absence	608	32.94		
Agreeableness	presence	196	41.29	2.113	.035
	absence	608	40.19		
Consciousness	presence	197	37.57	-1.123	.262
	absence	606	38.22		
Emotional stability	presence	197	30.12	1.580	.115
	absence	599	28.93		
Intellect/ Imagination	presence	194	39.04	3.444	.001
	absence	604	37.26		
		Other talents			
Personality Factor		N	Mean	t	Sig.
Extraversion	presence	260	34.11	2.411	.016
	absence	480	32.64		
Consciousness	presence	261	40.89	1.589	.112
	absence	480	40.10		
Agreeableness	presence	257	37.52	-1.307	.192
	absence	481	38.23		
Emotional stability	presence	258	29.93	1.670	.095
	absence	476	28,74		
Intellect/ Imagination	presence	257	39.67	6.950	.000
	absence	480	36.39		

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