

Is There a Correlation Between Extroversion Personality Characteristics of Medical Students and Awareness of Works of Art?

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Aim: In this study, we aimed to assess the relation between extroversion personality characteristics and awareness of works of art among a group of university students.

Materials and Methods: One hundred thirty-five phase II students of the Medical Faculty of Hacettepe University registered in the 2005-2006 academic year participated in this descriptive study. In order to assess extroversion personality characteristics, Eysenck Extroversion Personality Scale was used. For determining awareness of works of art on the campus, researchers photographed selected works of arts and presented them for evaluation by the participants in a questionnaire. Four categories were determined as follows: category A: artistic products with the least probability of being recognized; category B: products with low probability of being recognized; category C: products with intermediate probability of being recognized; and category D: products with the highest probability of being recognized.

Results: 59.3% of the participants in this study were male and 40.7% female students. Twelve works of art in total were presented to the students in the study. Students knew the correct location of a mean number of 6.3 ± 2.3 works of art. The mean extroversion score of the participants was 13.7 ± 4.3 . Those scoring "14 or more" points from the extroversion scale were described as "more extrovert".

Conclusions: The personality trait of extroversion might be one of the positive influences on the participants' awareness of works of art. Further studies in order to evaluate and increase the awareness of the students about works of art may be appropriate.

Key Words: Extroversion Personality Characteristics, Works of Art, Awareness

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Tıp Öğrencilerinin "Dışa Dönük Kişilik Özellikleri" ve Sanat Eserlerinin Farkındalığı Arasında Bir İlişki var mı?

Amaç: Bu çalışmada bir grup üniversite öğrencisinin dışadönük kişilik özellikleri ile sanat eserlerinin farkındalık düzeyi arasındaki ilişkinin incelenmesi amaçlanmıştır.

Materyal ve metod: Tanımlayıcı tipteki bu araştırmaya 2005-2006 eğitim-öğretim yılında Hacettepe Üniversitesi Tıp Fakültesi ikinci sınıfta okuyan 135 öğrenci katılmıştır. Katılımcıların dışa dönük kişilik özelliklerinin saptanması için "Eysenck Kişilik Envanteri'nin Dışa Dönüklük Ölçeği" kullanılmıştır. Kampüs içinde yer alan sanat eserlerinin farkındalık düzeylerinin belirlenebilmesi için de araştırmacılar tarafından seçilmiş olan sanat eserlerinin fotoğrafları çekilmiş ve bu fotoğraflar anket içinde katılımcıların değerlendirmesine sunulmuştur. Eserler seçilirken, dört kategori belirlenmiştir. Buna göre fark edilme olasılığı "çok az" olan eserler A; fark edilme olasılığı "az" olan eserler B; fark edilme olasılığı "orta" derecede olan eserler C; ve fark edilme olasılığı "yüksek" olan eserler D kategorisi olarak değerlendirilmiştir.

Bulgular: Araştırmaya katılanların %59.3'ünü erkek, %40.7'si kız öğrenciler oluşturmuştur. Araştırmada öğrencilere sorulmuş olan toplam 12 sanat eseri bulunmaktadır. Öğrenciler bu eserlerin ortalama 6.3 ± 2.3 'ünün yerini doğru bilmıştır. Katılımcıların aldıkları ortalama dışa dönüklük puanı 13.7 ± 4.3 olmuştur. On dört ve üzerinde puan alanlar "dışadönük" olarak değerlendirilmiştir.

Sonuç: Dışa dönük kişilik özelliğinin katılımcıların sanat eserlerinin farkındalıklarını olumlu yönde etkileyen faktörlerden birisi olabilir. Bu bakış açısıyla, öğrencilerin sanata olan duyarlılıklarını artırmaya yönelik çalışmalar uygun olabilir.

Anahtar Sözcükler: Dışa dönük kişilik özelliği, Sanat eserleri, Farkındalık

Introduction

The terms "introvert" and "extrovert" personality characteristics were first used by Sigmund Freud, and the context of these terms was extended by Carl Jung (1). As Neubauer mentioned in 2004, according to Jung, the dominant function in an extrovert

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is used in dealing with the world and the auxiliary function is used inwardly (2). A person who is an introvert uses the dominant function inwardly and deals with the world with his/her auxiliary function. A typical extrovert is defined as a person who enjoys a social environment, not working alone, has many friends, is usually self-indulgent, can be aggressive, and whose emotions are not in control. A typical introvert is described as a person who is usually silent and shy, can not behave in an intimate manner, plans his/her future, does not rely on instant reactions, controls his/her emotions, and is concerned with ethical judgements (3). In some previous studies, the relation between the personality trait of extroversion and status of interest in art was analyzed, as well as its relation with many other variables (4-9). As Locher (10) mentioned, art is open to different stimuli and comments, and in this regard, extroverted people are accepted as being more open to external stimuli. Hence, the possibility of being aware of artistic productions might be higher among extroverts compared to others. In addition, the openness to external stimuli may help these people to become more successful in their social lives. In Pardue's (6) study on students whose training is in health and works of art issues, it was emphasized that the viewing of art provides students an opportunity to refine and enhance their visual inspection skills. Furthermore, art is found to be an alternative creative medium that has been successfully integrated into medical education.

Based on this rationale, this study aimed to examine the relation between the extroversion personality trait of phase two students and their awareness of works of art.

Materials and Methods

Study Sample and Population

One hundred thirty-five phase two students (2005-2006) in the Medical Faculty of Hacettepe University participated in this descriptive study. Data was collected by four of the researchers between 17 and 28 April 2006. A questionnaire, prepared by the researchers, was comprised of four basic parts including sociodemographic characteristics of the participants, their participation in sociocultural activities, extroversion personality traits and questions about artistic productions.

Assessment of the Extroversion Personality Traits

For assessment of the extroversion personality traits, the Eysenck Personality Scale (extroversion part) was used. The validity study of this scale was completed in Turkey by Topcu in 1982 (3). The test included 21 questions and was used to determine students' extroversion personality traits. The traits assumed to indicate "extrovert" were evaluated as "1" and those indicating "not extrovert" as "0". The highest point attainable from this test was an estimated 21. There is no "exact" point at which one is considered an extrovert or not. Thus, in analyzing the results, the researchers used the "median value" as the cut-off point. In this study, the median was estimated to be 14. Participants scoring "14 or more" were determined as "more extrovert" compared to those scoring less than 14 points. In order to measure the awareness of artistic productions on the campus, researchers photographed selected artistic products and presented them for evaluation by the participants via questionnaire. In choosing the artistic products, four categories were determined as follows: category A: artistic products with the least probability of being recognized; category B: products with low probability of being recognized; category C: products with intermediate probability of being recognized; and category D: products with the highest probability of being recognized (Figure 1).

Statistics

Statistical Package for Social Sciences (SPSS) 10.0 was used for statistical analysis. Analyses included frequency and percent distributions, and calculations of means, standard deviations, medians, and percentiles.

Results

59.3% of the participants in this study were male and 40.7% female students. Their ages ranged between 18 and 23 years, and 52.6% were 20 years old. 38.5% of the participants lived in the dormitory, 35.6% at home with their family, 18.5% at home with their friends, 5.9% at home alone and 1.5% with their relatives (Table 1).

70.4% of the participants reported having inadequate time for their areas of interest. Among the students who



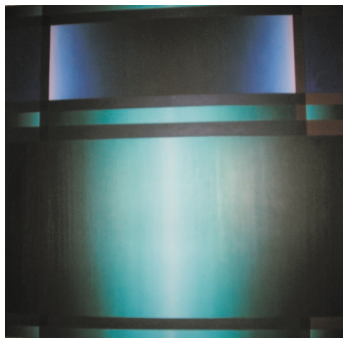
A



B



C



D



E



F



G



H



I



J



K



L

Figure 1. Photographs of the 12 works of arts.

Table 1. Sociodemographic characteristics of the students (Ankara, 2006).

Characteristics	Number	%
Age		
<20	23	17.0
20	71	52.6
>20	41	30.4
Mean±sd	20.2±0.8	
Median	20	
Sex		
Male	80	59.3
Female	55	40.7
Health expenditure is funded by		
Retirement fund	78	57.8
SSK	31	23.0
Bağ-Kur	13	9.6
Private	5	3.7
Out of pocket	8	5.9
Residency		
Dormitory	52	38.5
Home, alone	8	5.9
Home, with friends	25	18.5
Home, with family	48	35.6
With relatives	2	1.5
Total	135	100.0

reported enough time for areas of interest, 57.0% selected science, 51.9% sports, and 26.7% politics. With regard to their area of interest in art, 71.9% of the participants selected music, 23.0% painting, 21.5% theater, 21.5% photography, and 0.7% sculpture; 8.1% of the participants stated having no interest in any of the activities about art (Table 2).

Of all participants, 45.9% stated that they often read books, 8.9% stated they often travel to touristic and/or historic sites, and 17.8% stated they often travel for the

Table 2. Major areas of interest of the students (Ankara, 2006)*.

Areas of interest	Number	%
Sculpture	1	0.7
Theater	29	21.5
Photography	29	21.5
Painting	31	23.0
Politics	36	26.7
Sports	70	51.9
Science	77	57.0
Music	97	71.9

*Calculated over 135 participants

purpose of pleasure. Almost 50% of the participants reported that they had never gone to the cinema, 31.1% had never gone to the theater, 74.8% had never gone to the opera, and 21.5% had never gone to a concert. Almost 1 out of 10 students (9.6%) reported that they had never used the library (Table 3).

The mean extroversion score of the participants was 13.7 ± 4.3 and the median was 14. Those scoring 14 or more points from the extroversion scale were described as "more extrovert". The percentages of the participants who correctly knew 0, 1, 2 and 3 of the locations of the works of art in category A were 58.5%, 22.2%, 11.9% and 7.4%, respectively. In category B, these percentages were 43.7%, 30.4%, 25.2% and 0.7%; in category C, 6.7%, 19.3%, 35.6% and 38.5%; and in category D, 0.7%, 3.0%, 11.1% and 85.2%, respectively. Among the 12 works of art, students could correctly identify the location of a mean number of 6.3 ± 2.3 (median: 6). The scores of the participants are presented in Tables 4-6 and Figure 2.

Table 3. Sociocultural activity participation of the students (Ankara, 2006)*(n=135).

Activity	Never	Sometimes	Frequently
Read books, etc	2.2	51.9	45.9
Travel to touristic and historic sites	10.4	80.7	8.9
Travel for the purpose of pleasure	10.4	71.9	17.8
Attend the cinema	50.4	6.7	43.0
Attend the theater	31.1	59.3	9.6
Attend the opera	74.8	22.2	3.0
Attend concerts	21.5	63.7	14.8
Visit museums	39.3	59.3	1.5
Visit exhibitions	37.0	59.3	3.7
Watch art-related programs on TV	19.3	67.4	13.3

*More than one answer was reported; percentage values were calculated over 135 participants for each activity.

Discussion

Health is described by the World Health Organization (WHO) as the physical, mental and social well-being of an individual. Social well-being in this description has a wider context (11). According to Belek (12), an individual is

Table 4. Relation between extroversion personality scores of the students and awareness of works of art in category B (Ankara, 2006).

Extroversion score	Number of correctly known works of art in category B					
	< median		≥ median		Total	
	Number	%	Number	%	Number	%*
<14	33	53.2	29	46.8	62	45.0
≥14	26	35.6	47	64.4	73	55.0
Total	59	43.7	76	56.3	135	100.0

Chi square=7.05; p=0.02

*Column percentage; others - row percentage values.

Table 5. Relation between extroversion personality scores of the students and awareness of works of art in category C (Ankara, 2006).

Extroversion score	Number of correctly known works of art in category C					
	< median		≥ median		Total	
	Number	%	Number	%	Number	%*
<14	23	37.1	39	62.9	62	45.0
≥14	12	16.4	61	83.6	73	55.0
Total	35	25.9	100	74.1	135	100.0

Chi square=8.28; p=0.01

*Column percentage; others - row percentage values.

Table 6. Relation between extroversion personality scores of the students and awareness of works of art in category D (Ankara, 2006).

Extroversion score	Number of correctly known works of art in category D					
	< median		≥ median		Total	
	Number	%	Number	%	Number	%*
<14	13	21.0	49	79.0	62	45.0
≥14	7	9.6	66	90.4	73	55.0
Total	20	14.8	115	85.2	135	100.0

Chi square=3.44; p=0.06

*Column percentage; others - row percentage values.

expected to assume his/her humanistic, socialistic, and collectivistic roles. The opposite condition means that there is a defect in an individual's social well-being. There is a growing perception among the public that medicine has become a profession of "uncaring technocrats" and that doctors and other health professionals have lost their humane approach to patients.

The fine arts may contribute to developing some human values in health services and places where they are provided. However, the strict curriculum of medical faculties frequently does not allow medical students to carry out such activities as well as their scientific programs. This inadequacy can unfortunately be a threat to medical students in developing more self-oriented

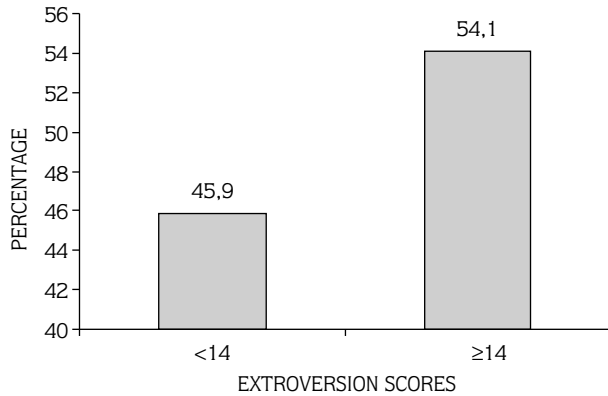


Figure 2. Extroversion scores of the students (Ankara, 2006).

personality characteristics. However, medical students usually have close relations with their colleagues and patients of different backgrounds. Self-oriented personality characteristics may sometimes interrupt their humanistic approach, especially in their relations with patients. Macnaughton and Baum (13) mention that medicine and the other health professions should turn to the arts for inspiration.

When participants' personality traits of extroversion were analyzed, 54.1% were more extrovert than the others. In a research conducted by Belojevic, Slepcevic and Jakovljevic (14) involving 123 medical students of the Medical Faculty of Belgrad University in 2001, personality traits of extroversion of the participants were measured by the Extroversion Scale of Eysenck Personality Questionnaire and two groups of subjects were formed concerning the level of intro-extroversion, using the mean score as a dividing criterion; 62.6% of the students were more extrovert than the others. To date, there have been many studies examining correlations between extroversion and various variables (4-9). However, no study in the literature that evaluates extroversion and awareness of works of art was found. The results of this study point out that individuals scoring higher on the extroversion scale had greater knowledge of locations of works of art. The results were parallel with description of extroversion and the results of Belojevic, Slepcevic and Jakovljevic's study (14), which mentions that extroverts have more connection with the external environment.

When the frequency of participants' visiting museums was queried, 39.3% of the subjects mentioned that they had never visited a museum, whereas 59.3% sometimes

visited, indicating a low tendency to visit museums. The findings of Mason and McCarthy's (15) survey conducted in New Zealand in 2006 showed that generally middle-aged and older people visit museums, while young people generally do not consider museums as places to spend their leisure time. This may also explain the results of our study, which took place in a medical faculty in Ankara. Thus, activities in which students can participate and exhibitions intended for their interests can be coordinated. During the executive period of this study, some limitations were noted:

- Eysenck Personality Questionnaire contains four parts. Personality traits of extroversion were measured by the extroversion scale, but the lie scale, used to measure the tendencies of examinees to "fake good" when they complete the questionnaire, was not included (16). In the extroversion scale, answers that support the personality trait of extroversion can be easily estimated. Due to the absence of the lie scale, suspicions about the sincerity of the participants could not be eliminated. This should be kept in mind in further studies.
- Participants were asked to mention their interests and were allowed to select more than one choice. However, these choices had not been graded, so during the comparison of the choices some limitations were encountered. For better analyses, this issue should be addressed in similar studies.

In conclusion, the personality trait of extroversion may have a positive effect on a participant's awareness of works of art. 54.1% of the participants scored high on the extroversion scale; however, the percentages of the students who correctly knew locations of the works of art were not as high as expected. Considering that medical students and at the same time youth must not be insensitive to art, it is necessary to focus on increasing activities about art in order to develop their artistic interests at both universities and local administrations. There must be a place for art in the curriculum of the medical faculties because of its positive effects on the medical students' future career.

Students scoring higher extroversion points were more aware of works of art in category B and C than the others ($p < .05$). This data proved the study's hypothesis that extroverts are more likely to have greater knowledge

of art productions. This relation must be proven more clearly by studies with a greater number of participants. In category D, the same result was less meaningful ($p=.06$). To show this relationship more clearly, analysis with larger scale studies is suggested.

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