A Study on Individuals' Art Preferences according to Their Personality Traits via Computer-Aided Web Site

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Abstract   Aim of this study is to examine the relationship between individuals' art preferences and personality traits. In this study where relational scanning model was used, 336 students of a university, which has total 28.000 students, make up the research group. Students in the research group are from different classes and demographic traits. Five-factor personality scale, a computer-aided art preferences survey that includes 24 visuals from the arts of Renaissance, Cubism, Abstract Art, Traditional Art, Impressionism and Surrealism and personal information form were used to obtain the research data. According to results it was found that people with the personality traits of extroversion and openness to experience mostly prefer surrealist works and those with personality traits of tender-mindedness usually prefer Impressionist work of art.

Keywords: personality, art preferences, openness to experience, big five model

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1. Introduction

Art is one of the many activities (playing sports, having picnic or going fishing etc) that we prefer to do so that we can move away from discipline-required daily works and relations. Many people are involved in arts to get rid of the tiredness in their life. Some people take painting, music, marbling, calligraphy and dance lessons from hobby courses while some others are more passive and only prefer to follow artistic activities as they are shy or could not find enough time. The importance and priority of art to a person can vary. While some people want to be informed from the artistic activities, they spend time and money for them, some others are only interested in an artistic activity when they come across and they do not spend money for it. However, some people regard going to galleries, learning about artists, following the hobby courses and the date of concerts or theatres are loss of time. Apart from those who does not let art be involved in their life, people who are slightly interested in art vary according to their art preferences. Whether the preferences, of which motto is "there is no accounting for tastes", are related to art education, art history, parenting education and personality beside the art experience or not is one of the big questions for every field. For example, those who prefer square shapes are prim, hard-working and logical but sometimes they may make wrong decisions. On the other hand, those who like circle shapes are good communicators, agreeable and sympathetic personalities [1].

2. Art preferences and Characteristics of Personality

In this sense, it can be stated that individuals' art preferences are related to their personality structure. However, psychologists usually ignore individuals' interest in art [2]. In this sense, whether individuals' tendencies to works, which are separated from each other according to style, function and sense of art, are related to individuals' personality or not is an important question. In this field of study the researches which were done abroad are important. Conservatism, openness, schizotype, tolerance to uncertainty and especially a various type of personality factors that search for sense were studied [3]. Specific studies which would shed light on especially the relation between art and personality were carried out, too [3,4,5,6].

It was found in Wilison, Ausman and Mathews's studies (1973) that liberals mostly prefer more complex and abstract paintings on the other hand, conservatives do not like mixed representative and mixed abstract paintings and they prefer simple representative ones. In Furnham and Avison's studies (1997) the relation between the preference of surreal painting and personality was examined. According to findings of this study the relation between the preference of surreal painting and the dimension of five factors personality was not very strong. The findings supported other studies showing the relation between art preferences and personality, also they showed

that some personality traits could be related to especially preference of surreal painting.

In McManus and Furnham's study (2006) it was concluded that aesthetic activities have strong relations specially with the personality functions of openness, adaptability and responsibility. In a study carried out by Premuzic et al. (2009) 91.692 individuals' personal differences in their artistic preferences were examined and it was found that art preferences were consistent with personality and openness to experience -a personality trait- had the strongest relation.

According to Premuzic et al. (2009) together with the wide acceptance of one of the personality theories named five factor -sometimes called "Big Five"- it would be easier to compare the findings of different studies for the determiners of personal differences in art preferences. According to theory of five factors personality, personal differences which are not clinical can be classified as five personality factors [2] Studies in which the relations between the five factors personality and art were examined were not too old. There are some studies [7], [8], [9], [10] which deal with the relations between artistic concepts and personality. However, in these studies the question about individuals' art preferences and whether their personality structures affect these preferences or not is not dealt with sufficiently. In fact, the answer of the question "how is the relation between individuals' personality structure, their art preference and artistic interests" is of great importance. In this study, answers for the following questions were searched in order to examine the individuals' personality structure and their art preference;

1. Is there a relation between personality types of individuals and their art preferences?
2. Do individuals' personality types differentiate according to their art preferences.

3. Method

Relational scanning model was used in this study. Scanning is an approach that aims to describe a situation, an event, an individual, a society or an object in their own conditions which remain in the past or still exist [11].

3.1. Sample and Procedure

In this study, which deals with university students' personality types and art preferences, research group consist of 336 students and 150 (44%) of them takes fine art education and 186 (66%) of them are from other departments. In the scope of study 205 (% 55.1) male and 131 (% 44.9) female total 400 students were reached with convenience sample method. Age of the participants is as such; 312 (%92.2) of them are between 18-25 age range and 24 (% 7.8) of them are older than 26. Students in the study group were announced to enter a ready-prepared web-based survey system. The students who voluntarily enter the web site were given feedback about their art preferences, types of personality and artistic interests when they fully completed the form. The server PC Sun Fire X2200 with quad-core and AMD Opteron processor was preferred and used as the infrastructure of the web-site in which the scales were applied. Also it has 16 gb Ram memory and 2 hard disks (Raid) that can record the

date simultaneously. In addition, there are four 10/100 / 1000BASE-T Gigabit Network Connections (Ethernet port), 1 DVD burner (DVD-RW), a total of 4 USB 2.0 ports (2 on the front panel, 2 on the back panel), and on the main board are located a 2D / 3D graphic card, and a serial RS232 port.

CentOS 6.5 operating system of RedHat Company, free for personal use, is used as a server operating system. Apache Server version 2.2.29 is used for web services on the server. MySqL 5.5 version is used as a database which is both easy and free for use. The coding of the survey is entirely done by us using the php (Php 5.5) programming language.

3.2. Data Collection Instrument

In this study the data is collected through Adjective-based Personality Tests and 24 visual(Guernica/Pablo Picasso,Pêras, Camille Monet and a child the Artist's garden in Argenteuil /Claude Monet,The Blind Leading /Pieter Bruegel, Court of mahmud of ghazni/ Hadi Tajvidi, Dessin Arithmétique IV./ Theo van Doesburg, Bottle and Wine Glass on a Table/Pablo Picasso, La Mod'ele Rouge/Rene Magritte, Onions/Pierre Auguste Renoir, Christ before Pontus Pilate/Hieronymus Bosch,Vav/Erol Akyavaş, Compossition/Wassily Kandinsky, Compossition/ Georges Braque, Geopolitius Child/ Salvador Dali, Mola/ Van Gogh, The Martyrdom of Saint Catherine/Lucas Cranach the Elder, Falcon/ from a Moraqqa Giclee, whispering Wall/ Burhan Doğançay, Violin and Playing Cards/Juan Gris, African Sonata/ Vlademir Kusch, Le Boulevard de Montmartre/ Camille Pissaro, Hunters in the Snow/ Pieter Bruegel, Ebru-Tulips /Alparslan Babaoğlu, Composition/ Ferruh Başağa) and individual information forms developed and classified by experts according to the art movements within the framework of literature.

3.3. Adjective-based Personality Test

Adjective-based Personality Test was developed by Bacanlı, İlhan and Aslan (2007). Factor analysis and similar scale validity methods were utilized in order to test the validity of the developed scale. In the factor analysis which was conducted to test the validity of the scale, 40 adjective pairs which can evaluate the five different personality traits (Neurotic personality, Extraversion, Openness, Agreableness, Consciuostness.) were determined. The resulting data showed 52.6% of the five-factor personality variance. Sociotropy Scale, Conflict-Response Scale, Negative-Positive Emotion Scale, and constant Anxiety Inventory were used to test the external validity of the developed scale. Expected results were obtained through these comparisons. The obtained results proved the validity of the current scale. Also at the end of the reliability analysis of the scale, Cronbach alpha coefficient is found to be for sub scale of Neurotic Personality .73, Extraversion .89, Openness .80, Agreeableness .87, Conscientiousness .88 [12].

Individuals' Art Preferences Scale: In the framework of literature, a computer-aided art preferences survey which covers 24 visual species of the art genres such as Renaissance, Cubism, Abstract Art, Traditional Art, Impressionism and Surrealism was applied. According to the survey, 4 paintings with high representing power were chosen from each of these 6 art movements. To give brief

information about the chosen painting movements; Renaissance today is adopted as the period that started the classical European Art. Until the 15th century the symbolic world view of the Middle Age was dominant over Europe. There was an abstract and debate closed system of thought. This was naturally reflected in the art. Besides Painting and Architecture, "Perfect Form", "Balance", "Balanced Proportions" and "Elegance" were also valid in the 15th century Sculpture [13,14]. According to San [15] in response to the perfect and ideal image of the Renaissance, the contemporary art movements of the 20th century such as cubism, structuralism and constructivism are the movements that deal with a number of abstract forms and qualities which cannot be separated from substance and its form. In these types of art, intuition also has a big role as well as mind. With regard to the rates and links, there are no external goal orientations except the expression of artist's own inner harmony and intuition except some substantial items such as mass, contour, color and tones. Dysfunctional abstract paintings deal with pure and absolute forms. Impressionism is an art movement that takes capturing the light and colour of the object as a goal and takes care of saving the light and colour of the nature rather than representing it. Emerged and observed first as a painting movement and later as a music movement in France in the last quarter of the nineteenth century, and aimed to enroll the world completely in light and colour effect terms, impressionism handled the reality using a rather different method from realism and naturalism. Taking the reality and epistemological process as an individual phenomenon rather than regarding them universal distinguishes them from other art movements influenced by scientific developments [16].

The basic category that determines the abstract art is geometry and it displays a specific order. Painting is a surface covered with form, texture and colour which are combined together in a specific order. Making the art of painting geometrical and fixing it on a geometric structure means a move away of the art from the interest of living [17].

Surrealism is an art vision based on the data of the science of mental illnesses particularly the psychoanalysis which began and developed with the Viennese psychiatrist Sigmund Freud. Until that time all the schools were established through seeking expression opportunities about the relations between objects. Surrealism was doing the same thing in another way: through self approach, through human spirit, through unconscious way of world. According to Surrealism, human being comprehends the outside world with his emotions but his perception of the outside world is not an expression of the concrete reality. People unconsciously re-establish that world inside themselves. The mission of the surrealist art is to express that inner world and clear up the subconscious. This can be achieved not through thinking logically, but on the contrary, through taking madness into consideration, dreaming, and observing the mental patients' ways of thinking [18].

"When the dynamic nature of modernity and modern social institutions are considered, security is literally the opposite of inertia here. On the other hand, in traditional cultures, the time that Levi-Strauss calls as 'reversible time' which corresponds to continuous renewal of the temporal uniformity and similarity is conducted through repetition method; namely the past is a way of organizing of the future." [19]

24 paintings which relate to those 6 stylistically, spiritually and sensually different art movements are presented to students' liking. The paintings are graded between 1 and 5 depending on the appreciation of the students.

Personal Information Form: Demographic Individual Info Forms are used.

Table 1. Is there any relationship between the personality and art preferences?

		AP	NP	EX	OP	AG	CO
AP	Pearson Correlation	1	,083	-,096[*]	-,111[*]	,047	-,033
	Sig. (2-tailed)		,082	,044	,020	,322	,493
	N	336	336	336	336	336	336

*. Correlation is significant at the 0.05 level (2-tailed).

Table 2. Do individuals' personality types differentiate according to their art preferences?

		Sum of Squares	df	Mean Square	F	Sig.
Neurotic Personality	Between Groups	2019,178	5	403,836	1,284	,270
	Within Groups	137176,505	331	314,625		
	Total	139195,683	336			
Extraversion,	Between Groups	4193,009	5	838,602	2,916	**,013***
	Within Groups	125376,204	331	287,560		
	Total	129569,213	336			
Openness	Between Groups	3726,377	5	745,275	3,293	**,006***
	Within Groups	98687,969	331	226,349		
	Total	102414,346	336			
Agreeableness	Between Groups	1261,347	5	252,269	1,025	,402
	Within Groups	107326,809	331	246,162		
	Total	108588,156	336			
Conscientiousness	Between Groups	2043,918	5	408,784	1,533	,178
	Within Groups	116266,308	331	266,666		
	Total	118310,226	336			

*. Correlation is significant at the 0.05 level (2-tailed).

3.4. Data Analysis

A pearson correlation analysis is applied to find an answer to the question that whether there was any relationship between the personality -the first sub-question of the research- and art preferences. The results are remarked in Table 1.

When Table 1 is examined it is observed that there is a low level of correlation between subscales of Personality Type Scales and individual art preferences. It is inferred that there is a correlation of.-11 between individuals' art preferences and their openness to experience, and a .-9 correlation between their art preferences and outwardness.

A one-way variance analysis is applied to find an answer to the question that whether the personality types differ according to individual art preferences -the second subquestion of the research-, and the results are remarked in Table 2.

Table 2 shows us that the personality types differentiate depending on the individual art preferences. When the F value of the extroverted individuals has differentiated significantly at the rate of 2,91 ,p<.05, the F value of the individuals who are open to experience has differentiated significantly at the rate of 3,29 ,p<.05. LSD tests are performed to have a look at the source of this difference. The results are given in Table 3.

Table 3. Findings concerning the differences of art preferences according to individual personality types

Dependent Variable			SignificantDifference (I-J)	Standard error	Significance
				2,80855	,076
		3,00	**6,44670**[*]	**2,04577**	**,002**
		4,00	2,53877	3,48541	,467
		5,00	**7,45063**[*]	**2,69238**	**,006**
		6,00	4,62872	3,89757	,236
		1,00	3,24514	2,49176	,193
		3,00	**5,85095**[*]	**1,81502**	**,001**
Openness	2,00	4,00	,04514	3,09228	,988
		5,00	**7,08292**[*]	**2,38870**	**,003**
		6,00	4,91815	3,45795	,156

*. Correlation is significant at the 0.05 level (2-tailed).
1 (Cubism) 2 (Surrealism) 3(Impressionism) 4(Northern Renaissance) 5(Traditional Art) 6(Abstract Art)

When Table 3 is examined it is observed that the extroverted individuals have higher scores of surrealism than impressionism and traditional art. At the same time, the individuals who are open to experience also have higher scores of surrealism than impressionism and traditional art.

4. Discussion

According to findings obtained from the study, there is a correlation –even if it is low- between individual's art preference and personality. In Funham and Avison's study [3], the relation between the preference of surreal painting and five factors personality was not so strong either. However, individuals' personality structure affects their art preferences. When the literature is generally taken into consideration, it is seen that although the correlations between the personality and art preferences are not statistically very high, individuals make their preference according to this characteristic of their personality structure. In Dellinger' study [1] it is stated that there is a relation between individuals' personality types and their preference of shapes. A work of art can be regarded as a composition of shapes; therefore, this study matches up with Dellinger's.

It can be indicated that individuals who are open to experience and extroverted, like more liberal and different experiences and they make effort to gain different experience. In this sense, these individuals are liberalist. In their study Wilson, Ausman and Matthews [4] stated that liberals preferred more complex and abstract paintings. Premuzic et al. [19] found that younger and extroverted personalities mostly prefer cubism; however, agreeable and responsible personalities mostly make impressionist preferences. Also, in this study it was stressed that individuals, who are open to change, have higher imagination, need for cognition and divergent thinking, they prefer untraditionally, low authoritarian regime and liberal behaviours. Furthermore, these individuals are more compatible with the concepts of untraditional and modern abstract arts. In our study, it was also found that individuals who are extroverted and open to experience mostly prefer surrealist paintings and they are not very interested in impressionist and traditional paintings. According to Wilson, Ausman and Matthews [4] conservative people mostly prefer traditional art however, liberals mostly like more cubic and abstract paintings. Findings obtained from our study support the other studies done in this issue. Also, according to Per and Beyoglu [10] students of fine arts department usually have extroverted personality.

The students who attend fine arts department in Turkey are more extroverted individuals given that they are selected with reference to interests and talents. As the 44% of the sample in this study is comprised of the students of fine arts department, it can be said that the interests and art preferences of the individuals who are extroverted and open to the experience show surrealist tendencies. In the study carried out by Furnham and Crump [20] in which the personality traits of the students of science and art department such as abstraction, openness to experience, geniality and conscientious responsibility were compared, it was deduced that scores of geniality, sensitivity, abstraction and openness to development of the art department students were higher than the scores of science department students while they got lower scores in conscientious responsibility and perfectionism. Moreover, according to Alkan et al. [7] extraversion and openness to experience influence the relationships of the individuals positively. It is believed that extroverted personality traits

preclude the individuals from being egocentric and help them relate with the others.

5. Conclusion

As a result, the relationship between personality types and art preferences of individuals is obvious. The one results of the study, open experienced and social persons show more interest in Sürrealizm emphasis on the subconscious and abstract works that emphasize ideas as shown in the literature. But unlike this, It is a consequence in research that the persons who are lower openness to experienced and social show orientation to the external world is reflected in pictures as impressionism and traditional arts.In addition, the extroverted personality types of abstract art known for its warmth and sensitivity in social relationships and showing interest in the surrealist work.The high levels of responsibility and perfectionism conscientious people prefer the traditional arts. So it shows that our country is an indication that similar results with studies in other countries about the relationship between personality types and art preferences.

6. Future Investigations

The study may be lacking some qualitative data in the context of findings. The relationship between the preferred paintings and personality types of the individuals could only be evaluated in terms of quantitative data. This method does not allow us to comprehend to what the individuals pay more attention while choosing paintings and what they think or how they feel about painting. Mixed patterns which include a combination of quantitative and qualitative data can be suggested for the next studies to be done in literature.

On the other hand, personality types and art trends of the students from various fields of art education can be compared. At the same time, the influence of the art education of the individuals on human relations and communication, and life satisfaction can be searched.

Also, the relationship between the preferences of geometric shapes and personality types of the individuals can be investigated.

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