European Journal of Education and Pedagogy
www.ej-edu.org

The Personality Predictors of Art Preferences in Children

Lilly KV and Sudhakar Venukapalli

ABSTRACT

Art has been considered as a means of enriching oneself with values, transferring socio-cultural experience and traditions. Children articulate their wonder and excitement while engaging with an artwork and it is evident through their spontaneous responses. Aesthetic experience is regarded as fundamental to human existence. Experiencing and enjoying artworks help children to encounter diversities and prepare them for a facing challenge in life. The objective of the present quantitative study is to explore the relation between personality traits and art appreciation of children. The sample constituted sixty children of grade IX from the state of Telangana. The number of boys and girls participated in the study from rural and urban backgrounds are equal and children are in the age group of 13-15 years. Children's artistic preferences are measured by showing 48 images of artworks of two dimensions: 'abstractedness' and 'complexity'. The 'abstractedness' dimension include representational/realistic, semi-representational and highly abstract artworks and the 'complexity' dimension encompass low complexity, medium complexity, and high complexity artworks. Each group has four types of paintings: landscape, portrait, still life and animal representations. The results of analysis of the relation between children's personality traits and their art preferences using Pearson product-moment correlation coefficient (r) reveals that *Agreeableness and Conscientiousness* is moderately positively correlated with the perceived attractiveness of abstract paintings which is statistically significant. The results do not show any statistically significant correlation between *Openness to Experience* and perceived attractiveness for abstract artworks. Further, there exists a low negative correlation between *Neuroticism* and perceived attractiveness for abstract artworks which is statistically significant. There are no significant correlations between children's personality traits and perceived attractiveness for *Realistic, High Complexity* and *Low Complexity* artworks. The research findings are an indication for teachers to better design their classroom activities for enriching the lives of children.

Keywords: art, aesthetic appreciation, aesthetic preference, beauty, personality traits.

Published Online: March 23, 2023

ISSN: 2736-4534

DOI: 10.24018/ejedu.2023.4.2.607

Lilly KV *
Assistant Professor, St. Ann's College of Education (Autonomous), Secunderabad, India
(e-mail: lillychacko@gmail.com)
S. Venukapalli
Professor & Dean (R), The English and Foreign Languages University, Hyderabad, India
(e-mail: sudhakarvenu.efluniversity@gmail.com)

Corresponding Author

I. Introduction

Art has been considered as a means of enriching oneself with values, transferring socio-cultural experience and traditions. A painting does not aim to depict an objective appearance of the world, rather it chooses a "lived perspective" and portray the appearance of the world as it manifests itself to the percipient (Mouriki & Vaos, 2009). According to Jiao (2019), "art reflects comprehensive social life and reflects all kinds of fields and things in social life, material, spiritual, etc." Further, Jiao suggests that art reflects people's dreams, fantasies, emotions, desires, aesthetic tastes, and aesthetic thoughts (2019).

Francis Hutcheson (2003/1725), "in his thesis which is regarded as the earliest modern writing in philosophical aesthetics," (Beardsley, 1966) explained art as "something that instils a feeling of beauty and pleasure in the beholder." Hutcheson believed that "though individuals have varied judgement on what is beautiful, he believed that there are perfect criteria for beauty" (Shimamura, 2012). On the other hand, David Hume argues in his work, *Of the Standard of Taste* (1757) that "Beauty is not an inherent quality in things themselves: it lives in the mind which meditates on them; and each mind notices a different beauty". According to Kant, "beauty is an instinctive ideal that every individual possesses and hence treated as a universal notion." It is evident that, Kant repeated the feelings of Hutcheson and Hume by stating that "aesthetic judgments can be regarded as a subjective feeling which depends on experience and at the same time it is also a universal notion depending on the pre-existing ideals of beauty" (Shimamura, 2012).

Csikszentmihalyi and Robinson (1990) argued that "thinking and feeling occur simultaneously when people

view and appreciate art." When children indicate their visual preferences for shape, color, and images, they are making their aesthetic choices (Danko-McGhee, 2006). When children perceive an artwork, they articulate their wonder and awe through their spontaneous expressions. In artworks depicting familiar themes, children find different interpretations. Repetition of this process of contemplating artworks of different themes and genres help children to understand that artists create each artwork as a unique expression of their feelings (Eckhoff, 2010).

Why art appreciation is important in classrooms? In the midst of technological advancement, most of us focus on the technical and scientific aspects of the world and tend to neglect social and emotional skills and the quality of life itself. Tyler and Likova contends that "art should be considered as a cognitive process where artists deal with complex issues in present experience and try to look for ways of symbolizing them visually in order to bring coherence to their experience" (2012). Over the years, studies were conducted in the field of art-based interventions to evolve new pedagogies for teaching. The results of the studies showed that art-based interventions help in producing better learning outcomes. Rieger and Chernomas (2013) stated that a pedagogy rich in arts where arts is integrated with different school subjects foster learning among students. On the other hand, Wikström (2011) claimed that children's "observational skills, empathy, non-verbal communication and interpersonal skills" would be enhanced through art integrated learning.

Various public policy documents on education in India since independence, focused on holistic development of children. The Kothari Commission Report of 1964–66 mentioned the importance of arts in the lives of children by stating that the absence of arts in education would deprive the educational processes as a whole and it might lead to decreased aesthetic tastes and values among children. Children acquire the language of art through a richness of creative visual content. This makes training children to understand and experience art at a young age becoming important. Art education inside and outside of school is known to help children develop perception abilities to understand art. To know the language of art, children should continuously observe and experience art. Several researchers have proposed that direct contact with works of art is important for children (Cox-Peterson *et. al.*, 2003). Though studies showed that children's responses to art differ according to their age, psychologists have argued that "children's aesthetic development depends largely on their familiarity with art and the individual experiences children encounter when they perceive artworks. It includes children's knowledge of different artistic medium and their awareness of art in cultural and historic context" (Gardner *et al.*, 1975; Housen, 1987; Lin & Thomas. 2002; Taunton, 1982).

Children's engagement with art objects in classrooms proved beneficial to them. Efland (2002) contended that arts play an important role in the cognitive development of children because "they provide rich experiences that help build the ability to construct interpretations." According to Eisner (2005), the benefits of arts discussion in classrooms include: "the arts encourage students to act and judge in a fair manner even in the absence of rules, to depend on emotions, to pay attention to details, to act and to examine the results of one's choices, and to revise and then to look for other choices." Art provides experiences to students which will help them to frame their own opinions about artworks and further to evaluate their responses with the help of their peers.

Daniel Berlyne is regarded as one of the prominent contributors in the study of psychological aspects of art and aesthetics. His research program, *Psychobiological Aesthetics* initiated in 1960s and 1970s is considered as the beginning of contemporary experimental aesthetics. Berlyne argued that certain attributes of artworks namely, "novelty, complexity, surprisingness, uncertainty and incongruity" determine the arousal in an artwork. These properties are called as "collative" properties and they must be put together to drive one's emotional experience. Jacobsen (2006) argued that Berlyne's argument continues to influence "present studies in empirical aesthetics and the psychology of art." Silvia (2005) contended that "current research on experimental aesthetics is greatly influenced by Berlyne's notions on how collative variables influence arousal, interest, and artistic preference".

Berlyne argued that considering aesthetics and art, "artistic preference for an image is dependent on the complexity of the stimulus" (Berlyne, 1963; Berlyne *et al*., 1968). Further, he suggested that "perceived complexity of a stimulus depends on various factors including regularity of the pattern, the number of elements that constitute the depicted scene, the heterogeneity of the elements, or the absence of regularity of the forms" (Berlyne, 1970). Therefore, under general conditions, with a medium level of arousal, people tend to favor moderately complex artworks compared to very simple or highly complex artworks.

Our past experiences play an important role in formulating our knowledge and appreciation of objects. Research revealed various factors that influence a complete aesthetic experience with artworks including titles which are fluent (Gerger & Leder, 2015), effective interpretation of artworks (Russell, 2003), and expertise in artworks (Belke, Leder, & Carbon, 2015). It was also found that exposure to different genres of artworks enhances ratings on likings of artworks. Stojilovic & Markovic (2014) argued that "familiarity to artworks and the artworks that displays its details increases the ratings of liking of artworks." Zajonc (1968) propounded a theory which was named "mere exposure effect" where he contended that "when a viewer perceives an object or image more often, it leads to his liking for it."

Aesthetic experience is very basic to human existence (Redies, 2007). For centuries, many are in pursuit of the essence of aesthetic experience. It includes "philosophers, historians, theoreticians, and critics of art, and psychologists" and recently neuroscientists have joined this group. Edmund Burke (1757) proposed that "aesthetic judgement has a biological (physiological) foundation." According to work done by many theoreticians in the field of philosophical aesthetics (Burke, 1757; Hume, 1757; Kant, 1790), aesthetic judgement was believed to be "free from cultural, historic, or social conditions which led to the creation of the artwork. On the contrary, more recent

theories of art contends that the historic and social context explains the artworks." (Danto, 1981; Goodman, 1968).

Kieran (2012 cited in Sherman & Morrissey, 2017) suggested that "appreciation of art is an intrinsically valuable skill which helps individuals to build noble character, because when one is engaged with artworks, it fosters imagination, and helps him to critically examine aesthetic qualities of artworks, its artistic originality, emotional expression, depth and moral understanding." Hume argued that art appreciation provides people with "deep imagination, wisdom, comparative knowledge, and freedom from prejudice" (Kieran, 2012). These skills are considered as social skills as it helps individuals to "understand himself and others in a more positive way and modifies one's moral, political and social commitments" (Sherman & Morrissey, 2017). Cuypers et al. stated that "both appreciation and creation of art provide enhanced well-being which was studied by measuring perceived health, life satisfaction, and anxiety and depression scores of individuals" (2012).

Is there a factor called universal aesthetic preference? Child and Siroto (1965) argued that "aesthetic values differ even among the members of the same community." Further research suggested that "aesthetic judgement is not influenced by cultural factors, though it is found only among certain people who exhibit specific aesthetic sensibility" (Child & Sirto, 1965; Ford *et al.*, 1966). In a cross-cultural comparison of aesthetic preferences by British and Egyptian participants including art students and lay people, Soueif and Eysenck (1971) found no significant differences between both cultural groups. This result suggests that "the cause for aesthetic judgements is rather biological" (Soueif & Eysenck, 1972). This notion was further investigated by Farley and Ahn (1973). The study was conducted using polygons with varied complexity dimensions and compared the aesthetic preference of participants. The participants were selected from different cultural background including United States, China, Korea, India, and Turkey. The results agreed that "there exists a factor called aesthetic universals, where it has been found that people in different cultures respond to complexity in a similar pattern" (1973).

The influence of personality traits on aesthetic appreciation of visual objects were discussed from years ago and the modern approach to this aspect started from the beginning of 20th century based on the findings brought forward by Alfred Binet (L'étude *expérimentale de l'intelligence*, 1903). Further researchers began exploring the influence of personality traits on aesthetic preferences of different people.

In a study to examine the "observed differences in preferences for drawings of different complexity and paintings with diverse content", Barron and Welsh (1952) suggested that the "participants who preferred simple, symmetric figures are fund to be contended, gentle, conservative, unaffected, patient and peaceable people." The other set of participants who preferred "complex, asymmetric figures" were placed themselves as "unstable, dissatisfied, pessimistic, emotional, pleasure-seeking and irritable people." The results of the study further confirm the proposal that "those who prefer visual stimuli with different complexity dimension are found to be people with personality traits of extraversion-introversion and conservatism-radicalism dimensions." (1952).

Johnson (1994) explained that "openness can be regarded as interest in beauty whereas intellect is considered as interest in truth" and suggested that both the traits are in the category of information-seeking traits. According to Fayn *et al*. (2015), "people who are aesthetically sensitive possess the personality trait of openness/intellect and this could be the reason for individual differences in art appreciation".

According to Salkind and Salkind (1997), "preference is a degree of liking or not liking a work of art and he proposed that preference for work of art depends on previous experience, learning experience, socializing and cultural values" (1997). Chamorro-Premuzic *et al*. (2009) suggested that preference for work of art is related to intelligence, age, sex, personality traits and level of education. Furnham and Chamorro-Premuzic (2004) argued that *openness to experience* predicts 33% variability in preference for works of art. 'Aesthetic exposure, education and experience with works of art' are also said to influence art preferences (Archbell & Stange, 2012).

Though some aestheticians agree with the presence of a single general factor in the aesthetic preference of people, further studies could not conform it. The reasons for this difference in aesthetic preference could be varying personality traits, social and cultural background of people, the art education received by them and their gender. Studies showed that "perceiving and experiencing art may foster children to become self-directed learners which help them to refine the creative and innovative thinking processes which are the much sought-after 21st century skills" (Bellanca & Brandt, 2010). By experiencing and enjoying art, children will be more prepared for meeting their personal challenges. Art experiences will be an opening for children to develop their identities.

The present study explores the relation between personality traits and art appreciation of children. The quantitative study examines whether children's personality traits contribute to their art appreciation.

II. Methodology

The study employed sixty children who study in grade IX, and they are in the age group of 13–15 years. The participants in the study come from both rural and urban areas of the state of Telangana in India. The number of boys and girls in the sample remain equal. The mean age of rural children is 14.7 years whereas it is 13.6 years for urban children. On the contrary, mean age of girls is 14 years and of boys is 14.3 years. Standard deviation for rural and urban children are 0.58 and 0.56 respectively whereas standard deviation is 0.91 for girls and 0.75 for boys. The sample has 30 children each selected from rural and urban parts of Telangana.

The sample selected for the study are art naïve students who did not receive any formal art education. This may avoid any mediated influence of art related knowledge (Leder *et al.*, 2006). The report of Art Expertise Questionnaire reveals that the children had no formal art education. The Art Expertise Questionnaire is devised to

gather specific data on students' interest in arts, whether they attend any art education classes, and the average time spent per week by each participant on arts activities. At the beginning of the study, children are adequately informed about artworks of varied artistic genres, art preferences, and the different procedures that the children are engaged during the study.

Children's artistic preferences are measured by showing 48 images of artworks. These artworks are categorized into 'abstractedness' and 'complexity' dimensions. Abstractedness represents realism in the composition whereas complexity is measured by the number and complexity of pictorial elements in the artworks. There are three groups in 'abstractedness' dimension: representational/realistic artworks, semi-representational artworks, and highly abstract artworks. The three groups under 'complexity' dimensions are: low complexity artworks, medium complexity artworks and high complexity artworks. Each group has four types of paintings: landscape, portrait, still life and animal representations. Two paintings are selected under each category and thus a total of 48 paintings are used to measure the artistic preferences of children. To reduce the impact of any preference or aversion for a particular painter, not more than six artworks are included by a single artist. Relatively unknown paintings are selected to reduce any impact of familiarity (Eysenck, 1940). To minimize the influence of ecological variables, paintings that depict vivid portraits of human figures and with scenes that could produce strong emotional responses are avoided. Paintings include works from varied art history periods and diverse cultures: classic, modern, and contemporary artworks. Artworks which are low in emotional identity are selected, and it did not show themes demonstrating aggression or which portrays religious activities.

Children viewed images of paintings with the help of a projector. All images of paintings are prepared in uncompressed jpg file color format with different dimensions. All images of paintings are adjusted in size to 1024 pixels. Since studies showed that the influence of viewing time on aesthetic appreciation is minimal, children were not given any time limit to view the paintings (Smith & Smith, 2006).

Visual art preferences of children are measured on a 5-point Likert scale, both for attractiveness and artistic value. For attractiveness, 1- represents very unattractive and 5-represents highly attractive. In the scale on artistic value, 1-represents least artistic and 5-represents highly artistic. Children rated attractiveness of all paintings first and then the artistic value using these two scales. Scores of children on attractiveness and artistic value are computed and taken as one value, *general attractiveness*, which gives the artistic preference of children. Before the main experiment, children are given five practice trials so that they could get an awareness about the paintings which are used in the study. The images which are shown for practice trials differ from those used for the actual study. Children's preference ratings are assessed quantitatively to assess the artistic preferences of children according to four artistic genres under the two dimensions of abstractedness and complexity.

The personality traits of children are measured using the *Big Five Inventory*, BFI. *Big Five Inventory* is a self-report inventory with 44 items that measures an individual on the Big Five Factors (dimensions) of personality. The average score of each student is then found out which gives the individual personality trait.

To investigate the relation between personality traits of children and their preference for artworks, correlation between personality traits and their perceived attractiveness of artworks are found out. Shapiro-Wilk test of normality is used to determine the normality of both variables, and the results showed that both variables are normally distributed. A scatterplot is created to test whether there is a linear relation between two variables and found to be true. Therefore, Pearson product-moment correlation coefficient (r) is used to measure the relation between personality traits of children and their art preferences, and the results are presented.

III. Results

Children's scores of general attractiveness for Realistic, Abstract, High Complexity and Low Complexity genres of artworks are coded from their art preferences. To measure the correlation between personality traits and art preferences of children, following hypotheses are designed.

H_1: There exists a significant positive correlation between children's personality traits and perceived attractiveness for realistic artworks.

H_1: There exists a significant positive correlation between children's personality traits and perceived attractiveness for abstract artworks.

H_1: There exists a significant positive correlation between children's personality traits and perceived attractiveness for high complexity artworks.

H_1: There exists a significant positive correlation between children's personality traits and perceived attractiveness for low complexity artworks.

To test this assumption, following null hypotheses are formulated.

H_0: There exists no significant positive correlation between children's personality traits and perceived attractiveness for realistic artworks.

H_0: There exists no significant positive correlation between children's personality traits and perceived attractiveness for abstract artworks.

H_0: There exists no significant positive correlation between children's personality traits and perceived attractiveness for high complexity artworks.

H_0: There exists no significant positive correlation between children's personality traits and perceived attractiveness for low complexity artworks.

The analysis of data processed using Pearson's product moment correlation provides the following results in Table I:

TABLE I: CORRELATION BETWEEN PERSONALITY TRAITS AND ART PREFERENCES

		Realistic Artworks	Abstract Artworks	High Complexity Artworks	Low Complexity Artworks
Extraversion	Pearson Correlation	-0.092	-0.079	-0.085	-0.059
	Sig. (2-tailed)	0.485	0.546	0.519	0.656
	N	60	60	60	60
Agreeableness	Pearson Correlation	0.033	0.326*	0.017	0.030
	Sig. (2-tailed)	0.980	0.011	0.899	0.819
	N	60	60	60	60
Conscientiousness	Pearson Correlation	-0.007	0.310*	-0.094	0.035
	Sig. (2-tailed)	0.955	0.016	0.477	0.793
	N	60	60	60	60
Neuroticism	Pearson Correlation	-0.108	-0.281*	0.149	-0.117
	Sig. (2-tailed)	0.410	0.030	0.255	0.374
	N	60	60	60	60
Openness to Experience	Pearson Correlation	-0.182	0.038	-0.078	-0.191
	Sig. (2-tailed)	0.165	0.774	0.554	0.143
	N	60	60	60	60

Correlations between personality traits and the general attractiveness for *Realistic, Abstract, High Complexity* and *Low Complexity* artworks are shown in the above table. The results show that *Agreeableness* is moderately positively correlated with the perceived attractiveness of abstract paintings (r=0.326, n=60, p=0.011) which is statistically significant. There is a moderate positive correlation between *Conscientiousness* and perceived attractiveness for abstract artworks which is statistically significant (r=0.310, n=60, p=0.016).

The results do not show any statistically significant correlation between *Openness to Experience* and perceived attractiveness for abstract artworks (r=0.038, n=60, p=0.774). Contrary to the hypothesis, there exists a low negative correlation between *Neuroticism* and perceived attractiveness for abstract artworks which is statistically significant (r=-0.281, n=60, p=0.030). From the results of the correlation test, the null hypothesis is accepted for *Realistic, High Complexity* and *Low Complexity* artworks. There exists no significant correlation between personality traits of children and perceived attractiveness for *Realistic, High Complexity* and *Low Complexity* artworks.

The study presents the relation between personality traits of children and their art preferences. The quantitative analysis of personality traits of children and their art preferences demonstrate that there exists no statistically significant correlation between personality traits of children and their perceived attractiveness for realistic, high complexity and low complexity artworks. The results of analysis show that *Agreeableness and Conscientiousness* is moderately positively correlated with the perceived attractiveness of abstract paintings which is statistically significant. The results do not show any statistically significant correlation between *Openness to Experience* and perceived attractiveness for abstract artworks. Further, there exists a low negative correlation between *Neuroticism* and perceived attractiveness for abstract artworks which is statistically significant.

The results of the present investigation corroborate the findings of Krajewska and Waligorska (2015) that *Neuroticism* was negatively correlated to preference for abstract art. On the other hand, the results are not in conformity with the findings of Chamorro-Premuzic *et al*. (2007) which states that *Openness to experience* is positively associated with preference towards abstract art.

IV. CONCLUSION

The present study explored the relation between children's personality traits and their art preferences. The study illustrates that the personality traits, *agreeableness,* and *conscientiousness* are correlated to perceived attractiveness of abstract artworks and the results shows a negative correlation with *neuroticism* and perceived attractiveness of abstract artworks.

The findings of the study clearly indicates that children should engage with artworks, reflect upon their experiences with artworks, value their experiences with artworks and appreciate its beauty. Teachers should encourage children in gaining these visual experiences. Further, teachers can act as scaffold during these visual encounters of children and help them in finding beauty in nature and in artworks. Children should be provided platforms to express their views on beauty and their reflections on artworks. Their aesthetic experiences should be broadened through the process of art integration in classrooms where children are provided with different contexts while engaging in their curricular subjects

including languages, mathematics, science, history, and the like. Teachers should provide regular opportunities for children to share their experiences and listen to reflections of their peers.

Experiencing art is regarded as an epistemology for finding meaning in life since perceiving and engaging with art arouses imagination and helps in imagining a better world. It may foster positive social change as it yields insight and help in evolving meaning in art and in life. If transference occurs, children may begin to examine art with more insight, understand the world with more curiosity, empathy which may lead to the creation of an inclusive world.

APPENDIX

List of paintings

1) *Hare in the Forest*, Hans Hoffmann, 1585.
2) *Still Life with Shrimps*, Early 18th century.
3) Abstract Landscape, Melody Cleary, contemporary.
4) *Michelangelo Buonarroti*, Daniele da Volterra, 16th century mannerism.
5) Basic Landscape, Barbara Furlong, contemporary.
6) *The Afternoon Meal*, Luis Egidio Melendez, 1772.
7) Abstract Portrait, Jaeyeol Han, contemporary.
8) *Towards Lihou Island*, Tony Allain, contemporary.
9) *Still Life with Lemons and Silver*, Margaret Aycock, contemporary.
10) Landscape, Shylo Verity, contemporary.
11) Animal painting, Nancy Seamsons Crookston, contemporary.
12) *Moving Mountains*, Paula Brett, contemporary.
13) *A Merry Company in an Arbour*, Adriaen van de Venne, 1615.
14) Peter Dranitsin, contemporary.
15) *Still Life with Fruits*, Antonio de Pereda, 17th century.
16) *Autumn Oaks*, George Inness, 1878.
17) *New Eggs, Old Spoon*, Carol Morgan Carmichael, 2015.
18) *Garden of Eden*, Paul de Vos with Jan Wildens, 17th Century.
19) Portrait, Sergey Gusev, contemporary.
20) *Exposed Teeth in Dinosaurs*, Mark Witton, contemporary.
21) *View of Valaam Island*, Mikhail Clodt, 1857.
22) Abstract Portrait, Amira Rahim, contemporary.
23) *Nuts in a White Cup*, Susan Jane Walp, 2008.
24) Rooster paintings, Craig Waddell, contemporary.
25) Landscape, Marty Avrett, contemporary.
26) Hand painted Rhino, Leonid Afremov, contemporary.
27) Abstract Still Life, Larry J Davis, contemporary.
28) *The Garden of Eden with the Fall of Man*, Jan Brueghel the Elder, 1613.
29) *Mrs Woodhill*, Johan Joseph Zoffany, 1770, neoclassicism.
30) *White Calf*, Marion Rose, contemporary.
31) *Relaxing on the Beach*, Robert Anderson, 2012.
32) Portrait, Raja Ravi Varma, late 19th century.
33) *Still Life with Dog and Game*, Alexandre Francois Desportes, early 18th century.
34) *Pears*, Aliki Yiorkas, contemporary.
35) *A Need in Me*, Paul Bennett, contemporary.
36) Unknown
37) Still Life with Fruits, Paul Cezanne, 19th century, post impressionism.
38) Unknown
39) *Girl with a Pearl Earring*, Johannes Vermeer, 1665.
40) Unknown
41) *The Human Head*, Jaxon Northon, contemporary.
42) *Vase with Flowers, Grapes and Peaches*, Jan Frans van Dael, 1810.
43) Portrait, Danny O Connor, contemporary.
44) *Still Life with Flowers*, Dimitri Romanovsky, 20th century.
45) Abstract Landscape, Pluto52 (Morino), contemporary.
46) *El Fayum*, Fabio Modica, contemporary.
47) *Summer Storm near Pulborough*, Samuel Palmer, 1851.
48) *Vera Study*, Jane Radstrom, contemporary.

CONFLICT OF INTEREST

Authors declare that they do not have any conflict of interest.

REFERENCES

Archbell, K. & Stange, K. (2012). *Relationship of personality to preference for representational versus non-representational art.* Retrieved from http://kenstange.com/science/Presentations-Papers/2012 Taiwan%20(virtual)/Personality%20And%20Art%20Preferences.pdf.

Barron, F. & Welsh, G.S. (1952). Artistic perception as a possible factor in personality style: Its measurement by a figure preference test. *The Journal of Psychology: Interdisciplinary and Applied*, 33, 199–203. doi: https://doi.org/10.1080/00223980.1952.9712830.

Beardsley, M.C. (1966). *Aesthetics from classical Greece to the present: A short history*. New York: The MacMillan Co.

Belke, B., Leder, H., & Carbon, C. C. (2015). When challenging art gets liked: evidence for a dual preference formation process for fluent and non-fluent portraits. *PLoS ONE*, 10(8), e0131796. Retrieved from https://doi.org/10.1371/journal.pone.0131796.

Bellanca, J. A., & Brandt, R.S. (2010). *21st Century skills: Rethinking how students learn*. Solution Tree Press. Retrieved from http://soltreemrls3.s3-website-us-west-2.amazonaws.com/solution-tree.com/media/pdf/study_guides/21st_Century_Skills_Study_Guide.pdf.

Berlyne, D. E. (1963). Complexity and incongruity variables as determinants of exploratory choice and evaluative ratings. *Canadian Journal of Psychology*, 17, 274–290. doi: 10.1037/h0092883.

Berlyne, D.E. (1970). Novelty, complexity, and hedonic value. Perception & Psychophysics, 8(5A). Retrieved from https://link.springer.com/content/pdf/10.3758/BF03212593.pdf.

Berlyne, D. E., Ogilvie, J.C., & Parham, L. C. C. (1968). The dimensionality of visual complexity, interestingness and pleasantness. *Canadian Journal of Psychology*, 22(5), 376–387. doi: 10.1037/h0082777.

Burke, E. (1757/1990). *A philosophical enquiry into the origin of our ideas of the sublime and the beautiful.* (A. Phillips, Ed. Intro.), Oxford, England: Oxford University Press.

Chamorro-Premuzic, T., Furnham, A., & Reimers, S. (2007). Personality and Art. *The Psychologist*, 20, 84–87. Retrieved from https://thepsychologist.bps.org.uk/volume-20/edition-2/personality-and-art.

Chamorro-Premuzic, T., Reimers, S., Hsu, A., & Ahmetoglu, G. (2009). Who art thou? Personality predictors of artistic preferences in a large UK sample: the importance of Openness. *British Journal of Psychology*, 100, 501–516. doi: 10.1348/000712608X366867.

Child, I. L. & Siroto, L. (1965). BaKwele and American esthetic evaluations compared. *Ethnology*, 4(4), 349–360. doi: 10.2307/3772785.

Cox – Peterson, A., Marsh, D., Kisiel, J., & Melber. L. (2003). Investigation of guided school tours, student Learning, and science reform recommendations at a museum of natural history. *Journal of Research in Science Teaching*, 40(2), 200–218. doi: 10.1002/tea.10072.

Csikszentmihalyi, M. & Robinson, R. E. (1990). *The art of seeing: An interpretation of the aesthetic encounter*. Malibu, CA: The J. Paul Getty Trust. https://books.google.co.in/books/about/The_Art_of_Seeing.html?id=ayWdarE6K0AC&redir_esc=y.

Cuypers, K., Krokstad, S., Holmen, T.L., Knudtsen, M.S., Bygren, L.O., & Holmen, J. (2012). Patterns of receptive and creative cultural activities and their association with perceived health, anxiety, depression, and satisfaction with life among adults: The HUNT study, Norway. *Journal of Epidemiology and Community Health*, 66(8), 698–703. doi: https://doi.org/10.1136/jech.2010.113571.

Danko-McGhee, K. (2006). Nurturing aesthetic awareness in young children: Developmentally appropriate art viewing experiences. *Art Education*, 59(3), 20–35. Retrieved from https://www.researchgate.net/publication/234604112.

Danto, A. C. (1981). *The transfiguration of the commonplace: a philosophy of art*. Harvard University Press, Cambridge, MA. Retrieved from https://books.google.co.in/books/about/The_Transfiguration_of_the_Commonplace.html?id=LIW60mm5QJkC&redir_esc=y.

Eckhoff, A. (2010). Using games to explore visual art with young children. *Young Children*, 65(1), 18–22. Retrieved from https://www.researchgate.net/publication/290551309.

Efland, A.D. (2002). *Art and cognition: Integrating the visual arts in the curriculum*. New York, NY: Teachers College Press.

Eisner, E.W. (Ed.). (2005). *Reimagining schools: the selected works of Elliot W. Eisner*. New York, NY: Routledge. https://ifarus.com/imagining-schools-the- elliot-eisner.

Eysenck, H.J. (1940). The general factor in aesthetic judgements. *British Journal of Psychology*, 31(1). doi: https://doi.org/10.1111/j.2044-8295.1940.tb00977.x.

Farley, F.H. & Ahn, S. (1973). Experimental aesthetics: Visual aesthetic preference in five cultures. *Studies in Art Education*, 15(1), 44–48. doi: 10.1080/00393541.1973.11651318.

Fayn, K., MacCann, C., Tiliopoulos, N., & Silvia, P.J. (2015). Aesthetic Emotions and Aesthetic People: Openness Predicts Sensitivity to Novelty in the Experiences of Interest and Pleasure. *Frontiers in Psychology*, 6, 1877. doi: 10.3389/fpsyg.2015.01877.

Ford, C.S., Prothro, E.T., & Child, I.L. (1966). Some transcultural comparisons of esthetic judgement. *The Journal of Social Psychology*, 68(1), 19–26. doi: 10.1080/00224545.1966.9919661.

Furnham, A. & Chamorro-Premuzic T. (2004). Personality, intelligence, and art. *Personality and Individual Differences*, 36 (3), 705–715. doi: 10.1016/S0191-8869(03)00128-4.

Gardner, H., Winner, E., & Kirchner, M. (1975). Children's conceptions of the Arts. *Journal of Aesthetic Education*, 9 (3), 60–77. Retrieved from http://links.jstor.org/sici?sici=0021-8510%28197507%299%3A3%3C60%3ACCOTA%3E2.0.CO%3B2-F.

Goodman, N. (1968). *The languages of art*: *An approach to a theory of symbols*. Oxford University Press.

Gerger, G. & Leder, H. (2015). Titles change the aesthetic appreciations of paintings. *Frontiers in Human Neuroscience*, 9, 464. doi:10.3389/fnhum.2015.00464.

Housen, A. (1987). Three methods for understanding museum audiences. *Museum Studies Journal*, 2(4), 41–50. Retrieved from https://vtshome.org/wp-content/uploads/2016/08/6-3MethodsforMuseumAudiences.pdf.

Hume, D. (1898/1757). Of the standard of taste. In T. H. Green & T. H. Grose (Eds.), Essays moral, political and literary. In Shimamura, A. P. (2012). Toward a science of aesthetics. In Shimamura, A.P. and Palmer, S.E. (Eds.), *Aesthetic Science* (pp 3–28). Oxford: Oxford University Press.

Hutcheson, F. (2003/1725). *An inquiry into the origin of our ideas of beauty and virtue*. London: Kessinger Publishing.

Jacobsen, T. (2006). Bridging the arts and sciences: A framework for the psychology of aesthetics. *Leonardo*, 39(2), 155–162. doi: 10.1162/leon.2006 .39.2.155.

Jiao, L. (2019). Analysis of Relationship between Arts Education and Spread of Modern Culture. *Journal of Social Science Studies*, 3. doi: 10.35532/JSSS.V3.189. Google scholar.

Johnson, J. A. (1994). Clarification of factor five with the help of the AB5C model. *European Journal of Personality*, 8,311–334. doi:10.1002/per.2410080408.

Kant, I. (2007/1790). *Critique of judgment.* New York: Oxford University Press.

Kieran, M. (2012). For love of art: artistic values and appreciative virtues. In Sherman, A. & Morrissey, C. (2017). What Is Art Good For? The Socio-Epistemic Value of Art. *Frontiers in Human Neuroscience*, 11, 411. doi: 10.3389/fnhum.2017.00411.

Krajewska, A. & Waligorska, A. (2015). Likeable Likeness: Personality, Experience and Preference for Abstract and Low Complexity Art. *Psychologia*, 58, 61–74. doi: 10.2117/psysoc.2015.61.

Leder, H., Carbon, C. C., & Ripsas, A. L. (2006). Entitling art: influence of title information on understanding and appreciation of paintings. *Acta Psychologica*, 121, 176–198. doi: 10.1016/j.actpsy.2005.08.005.

Lin, S.F. & Thomas, G.V. (2002). Development of understanding of popular graphic art: A study of everyday aesthetics in children, adolescents, and young adults. *International Journal of Behavioral Development*, 26(3), 278–287. doi: 10.1080/01650250143000157a.

Mouriki, A. & Vaos, A. (2009). Ways of Making, Seeing and Thinking about Art: *Art Expression and Art Education.* Retrieved from https://www.researchgate.net/profile/Alexandra_Mouriki2/publication/307767395. Google scholar.

Redies, C. (2007). A universal model of esthetic perception based on the sensory coding of natural stimuli. *Spatial Vision*, 21, 97–117. doi: 10.1163/ 156856807782753886.

Report of the Education Commission, 1964–66. Retrieved from http://dise.in/Downloads/KothariCommissionVol.1pp.1-287.pdf.

Rieger, K. L. & Chernomas, W. M. (2013). Arts-based learning: analysis of the concept for nursing education. *International Journal of Nursing Education Scholarship*, 10, 53–62. doi: 10.1515/ijnes-2012-0034.

Russell, P. A. (2003). Effort after meaning and the hedonic value of paintings. *British Journal of Psychology*, 94 (1), 99–110. https://doi.org/10.1348/000712603762842138.

Salkind, L. & Salkind, N.J. (1997). Gender and Age Differences in Preference for Works of Art. *Studies in Art Education*, 38 (4), 246-256. Retrieved from http://www.jstor.org/stable/1320524.

Sherman, A. & Morrissey, C. (2017). What Is Art Good For? The Socio-Epistemic Value of Art. *Frontiers in Human Neuroscience*. 11, 411. doi: 10.3389/fnhum.2017.00411.

Shimamura, A. P. (2012). Toward a science of aesthetics. In Shimamura, A.P. and Palmer, S.E. (Eds.), (2012). *Aesthetic Science* (pp 3–28). Oxford: Oxford University Press.

Silvia, P.J. (2005). Cognitive appraisals and interest in visual art: Exploring an appraisal theory of aesthetic emotions. *Empirical Studies of the Arts*, 23, 119–133. doi: https://doi.org/10.2190/12AV-AH2P-MCEH-289E.

Smith, L.F. & Smith, J.K. (2006). The Nature and growth of aesthetic fluency. *New Directions in Aesthetics, Creativity, and the Arts*, 1(1). Retrieved from https://www.researchgate.net/publication/232595805_The_Nature_and_Growth_of_Aesthetic_Fluency.

Stojilovic, I. & Markovic, S. (2014). Evaluation of paintings: Effect of lectures. *Psihologija*, 47 (4), 415–432. doi: 10.2298/PSI1404415S.

Soueif, M.I. & Eysenck, H.J. (1971). Cultural differences in aesthetic preferences. *International Journal of Psychology*, 6(4), 293-298. doi: https://doi.org/10.1080/00207597108246695.

Soueif, M.I. & Eysenck, H.J. (1972). Factors in the determination of preference judgements for polygonal figures: A comparative study. *International Journal of Psychology*, 7(3), 145–153. doi: https://doi.org/10.1080/00207597208247048.

Taunton, M. (1982). Aesthetic responses of young children to the visual arts: A review of the literature. *Journal of Aesthetic Education*, 16(3), 93–109. Retrieved from https://doi.org/10.2307/3332196.

Tyler, C.W. & Likova, L.T. (2012). The role of visual arts in enhancing the learning process. *Frontiers in human neuroscience*, 6 (8). doi:10.3389/fnhum.2012.00008.

Wikström, B.-M. (2011). Works of art as a pedagogical tool: an alternative approach to education. *Creative Nursing*, 17, 187–194. doi: 10.1891/1078-4535.17.4.187.

Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9,1–27. doi: 10.1037/h0025848.