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# AESTHETIC INTELLIGENCE AND ARTISTIC EMOTIONALITY IN THE STRUCTURE OF AESTHETIC CAPABILITIES OF ART MAJOR STUDENTS

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*Authors' Contribution: A – Research Design; B – Data Collection; C – Statistical Analysis; D – Manuscript Preparation; E – Empirical Research Implementation.*

*Relevance of the study. Recently, new constructs of intellectual abilities have emerged, including emotional, social, practical, interpersonal, spiritual, and bodily intelligences. The conceptualization and validation of the construct of aesthetic intelligence were presented in the study by V. Naichuk, K. Fomenko, and O. Kuznetsov (2021). However, there is no data on the connection between aesthetic intelligence and artistic emotionality of artists.*

*Results and Conclusions. Aesthetic intelligence is the ability to understand, analyze, interpret, evaluate, and use information about objects and phenomena of surrounding reality of natural or artificial origin obtained through aesthetic perception in order to solve everyday and professional tasks.*

*Aesthetic intelligence is a complex multidimensional phenomenon integrating perceptual, emotional-value, cognitive, and cultural components*

*that determine the depth and quality of aesthetic cognition. The ability for subtle sensory differentiation, emotional response to artistic images, analytical processing of their structure, and semantic interpretation forms the foundation of the creative activity of future designers.*

*Artistic-imagery emotionality is a component of aesthetic abilities manifested in the ability to respond emotionally to an aesthetic object. Artistic-aesthetic emotionality is revealed through impressive emotionality as the vividness and intensity of emotional reactions to an aesthetic object; artistic empathy as the ability to understand the artistic content of an object; and prognostic artistic empathy as the ability to understand the creator's intention in producing an aesthetic object.*

*Empirically, no differences were found in the level of artistic-aesthetic abilities between designers and artists, including those with different levels of emotional intelligence. The ability to empathize with the character of an artistic work and to predict the further development of events according to the creator's intention is characterized by a predominance of the medium level, whereas the emotionality of artistic-aesthetic perception among artists and designers appeared to be predominantly weak.*

***Keywords:*** *aesthetic intelligence, designers, artists, artistic emotionality, empathy, art education, professional training, aesthetic perception.*

**Естетичний інтелект та художньо-образна емоційність у структурі естетичних здібностей здобувачів мистецьких спеціальностей**

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Внесок авторів: **A – розробка дизайну дослідження; B – збір емпіричних даних; C – статистичний аналіз; D – підготовка рукопису; E – реалізація емпіричного дослідження.**

*Актуальність дослідження. Останнім часом з'явилися нові конструкції інтелектуальних здібностей, включаючи емоційний, соціальний, практичний, міжособистісний, духовний і тілесний інтелект. Концептуалізацію та валідацію конструкту естетичного інтелекту представлено в дослідженні В. Найчук, К. Фоменко та О. Кузнецова (2021). Проте відсутні дані про зв'язок естетичного інтелекту з художньо-образною емоційністю митців.*

*Результати і висновки. Естетичний інтелект – це здатність розуміти, аналізувати, інтерпретувати, оцінювати та використовувати отриману шляхом естетичного сприйняття інформацію про об'єкти та явища навколишньої дійсності природного чи штучного походження для вирішення повсякденних і професійних завдань. Естетичний інтелект є складним багатовимірним феноменом, що інтегрує перцептивний, емоційно-ціннісний, когнітивний і культурний компоненти, які визначають глибину і якість естетичного пізнання. Здатність до тонкого чуттєвого розрізнення, емоційного відгуку на художні образи, аналітичного опрацювання їх структури, змістової інтерпретації складає основу творчої діяльності майбутніх дизайнерів. Художньо-образна емоційність — складова естетичних здібностей, що виявляється в здатності емоційно відгукуватися на естетичний об'єкт. Художньо-естетична емоційність розкривається через імпресивну емоційність як яскравість і напруженість емоційних реакцій на естетичний об'єкт; художнє співпереживання як здатність розуміти художній зміст об'єкта; і прогностична художня емпатія як здатність зрозуміти задум творця при створенні естетичного об'єкта. Емпірично не виявлено відмінностей у рівні художньо-естетичних здібностей між дизайнерами та художниками, у тому числі з різним рівнем емоційного інтелекту. Здатність співпереживати характеру художнього твору та передбачати подальший розвиток подій за задумом творця характеризується переважанням середнього рівня, тоді як емоційність художньо-естетичного сприйняття у художників і дизайнерів виявилася переважно слабкою.*

***Ключові слова:*** *естетичний інтелект, дизайнери, художники, художньо-образна емоційність, емпатія, художня освіта, професійна підготовка, естетичне сприйняття.*

**Introduction.** The problem of the aesthetic development of adults has been scarcely considered in psychological research. As noted by O. Otych (2005), in the context of social development and contemporary labor market requirements, the aesthetic development of personality should ensure the effectiveness of the functioning of labor subjects. Therefore, it becomes an important component of the professional training of specialists in any field, which requires defining the main directions of artistic and aesthetic development of personality within the system of professional education and adapting relevant diagnostic criteria to the specifics of particular professional domains.

Over the past twenty years, this thesis has not only retained its relevance but has become even more significant. The acceleration of the pace of life, the growth of citizens' economic capacity, industrial production and trade turnover, processes of globalization of the socio-economic space, and the increasing role of Internet commerce all act as factors contributing to the growing social demand for the aestheticization of various types of economic activity and human life in general.

According to P. Brown (2022), the author of the term *aesthetic intelligence*, aesthetics plays a crucial role in business and everyday life. Aesthetic intelligence can be developed, and the aesthetic vision of organizational leaders as well as aesthetic activity in general can transform both individual organizations and entire economic sectors. A thoughtful approach to the aesthetic component of a company is a key factor in its successful functioning.

While acknowledging the timeliness of the emergence of this concept in economic discourse and its practical significance, it should be noted that the term *aesthetic intelligence* has not yet been sufficiently conceptualized in psychological science.

Recently, new constructs of intellectual abilities have emerged, including emotional, social, practical, interpersonal, spiritual, and bodily intelligences. The conceptualization and validation of the construct of aesthetic intelligence were presented in the study by V. Naichuk, K. Fomenko, and O. Kuznetsov (2021).

**Analysis of Recent Research and Publications.** The conceptual substantiation of aesthetic intelligence as a construct must meet three conditions:

– the use of statistical methodology;

– the meaningful correlation of the new construct with psychological constructs that have clear empirical justification;

– the operationalization of the construct as intellectual (cognitive) in its essence.

According to the second condition, aesthetic intelligence should be correlated with other constructs measuring intelligence and aesthetic abilities. For this purpose, it is necessary to clarify the understanding of the term *aesthetic intelligence*. According to P. Brown, aesthetic intelligence is the ability to understand, interpret, and express feelings arising in relation to a particular object or experience (Brown, 2022).

Based on this interpretation, aesthetic intelligence, similarly to emotional intelligence, is the ability to understand and regulate emotional states. However, unlike emotional intelligence (EQ), the object of mental activity here is not one's own emotional states or the psychological world of another person, but rather the material or natural world — surrounding reality ranging from nature and art to everyday objects and products we use daily.

Clarifying the above, in our definition aesthetic intelligence is understood as the ability to understand, analyze, interpret, evaluate, and use information about objects and phenomena of surrounding reality, both natural and artificial, obtained through aesthetic perception for solving everyday and professional tasks (Naichuk, Fomenko & Kuznetsov, 2021).

R. Arnheim analyzed aesthetic intelligence through the concept of *visual thinking*, which is not a passive reflection of reality but an active cognitive process involving the analysis of form, proportions, contrasts, and rhythms (Arnheim, 2004). According to this theory, any act of perception contains elements of thinking; therefore, the ability for aesthetic vision is directly related to general mechanisms of intellectual activity. This emphasizes that aesthetic intelligence is an integration of perceptual and analytical-synthetic

processes that ensure understanding of the structural organization of the visual environment.

Within the cognitive approach, aesthetic intelligence is defined as a specific form of information processing integrating perceptual, analytical, and interpretative processes. According to G. Leder, aesthetic processing unfolds through a sequence of stages: from primary sensory analysis to cognitive integration and the formation of aesthetic judgment (Leder et al., 2004). This approach highlights the role of pattern detection, visuospatial modeling, and structural analysis of artistic forms in the formation of aesthetic ability. Accordingly, aesthetic intelligence in the cognitive perspective is defined as the ability to effectively organize perception and construct meaning based on the visual features of an object, which is of key importance for the professional activity of designers and artists.

Within the humanistic approach, it is emphasized that aesthetic intelligence goes beyond purely cognitive operations and is associated with the sphere of experiences, meanings, and personal self-actualization. M. Beardsley emphasized that interaction with art represents a profound emotional and value-based experience that structures the inner world of personality and contributes to the development of reflection and meaning-making abilities (Beardsley, 1981).

Here aesthetic intelligence is viewed as an integration of intuitive experience and rational analysis, enabling the future designer not only to understand artistic material but also to perceive its semantic depth. The humanistic approach allows aesthetic intelligence to be explored as a mechanism of emotional sensitivity, empathy toward visual images, and the ability to interpret them emotionally and semantically.

Within the cultural approach, attention is paid to the socio-historical determination of aesthetic intelligence. In the studies of U. Eco, aesthetic structures are defined as sign-symbolic systems formed within particular cultural traditions and communicative practices (Eco, 1989). Within this framework, aesthetic intelligence appears as the ability to recognize and interpret culturally determined codes, styles, semiotic strategies, and symbolic patterns. For design activity, this implies the necessity of possessing the competence to

read cultural meanings and transform them into new visual solutions that correspond to the context and expectations of the target audience.

Within the field of neuroaesthetics, which combines cognitive psychology and neuroscience, aesthetic intelligence is conceptualized as the result of the interaction of sensory, emotional, and motivational neural networks of the brain. R. Zatorre and V. Salimpoor demonstrated that aesthetic experience activates the reward system, ventromedial prefrontal areas, and sensory zones responsible for integrating emotional reactions with the cognitive evaluation of an object (Zatorre & Salimpoor, 2013). The neuroaesthetic approach allows aesthetic intelligence to be viewed as a neurally mediated mechanism that ensures emotional sensitivity, complex processing of sensory signals, and the formation of aesthetic judgments. In design practice, this emphasizes the importance of both bodily-sensory and rational levels of aesthetic perception.

Thus, aesthetic intelligence is a complex multidimensional phenomenon that integrates perceptual, emotional-value, cognitive, and cultural components and determines the depth and quality of aesthetic cognition. The ability for subtle sensory differentiation, emotional response to artistic images, analytical processing of their structure, and semantic interpretation forms the foundation for the creative activity of future designers.

**Aim of the Study.** The aim of the study is to analyze artistic-imagery emotionality as a structural component of aesthetic abilities in future designers and artists depending on the level of their aesthetic intelligence.

**Results.** Table 1 shows the absence of differences in the indicators of artistic emotionality and empathy as structural components of aesthetic abilities among designers and artists.

A slight advantage in creativity speed was identified among future artists compared to designers, who tend to produce visual images more slowly but demonstrate a greater tendency toward elaboration and detailing of artistic images.

*Table 1*

**Indicators of artistic-imagery emotionality as a structural component of aesthetic abilities in future designers and artists**

| Indicators | Designers M | σ | Artists M | σ | t | p |
|---|---|---|---|---|---|---|
| Impressive emotionality of artistic perception | 2,57 | 2,30 | 3,44 | 2,70 | -0,68 | 0,505 |
| Artistic empathy | 4,71 | 2,43 | 5,56 | 1,74 | -0,81 | 0,432 |
| Prognostic artistic empathy | 2,43 | 1,90 | 3,89 | 2,32 | -1,35 | 0,199 |

A predominance of a medium level of impressive emotionality was identified among future designers and artists. These results indicate an urgent need to implement technologies for the development of emotional intelligence among art students in order to increase their competitiveness in the labor market.

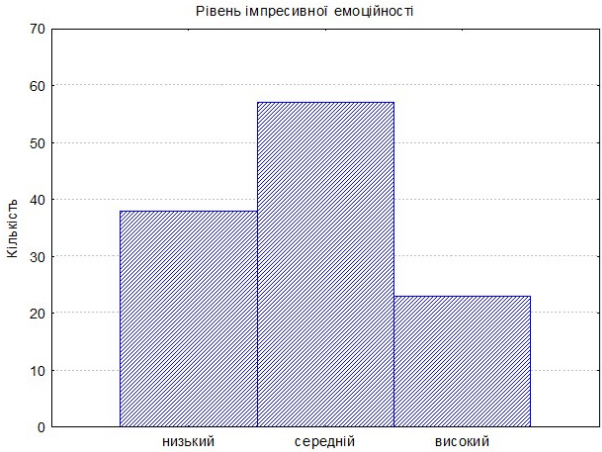



*Figure 1. Distribution of respondents by the level of impressive emotionality of artistic perception.*

The indicators of empathy and prognostic empathy among future artists demonstrate a normal distribution with a predominance of the medium level of development.

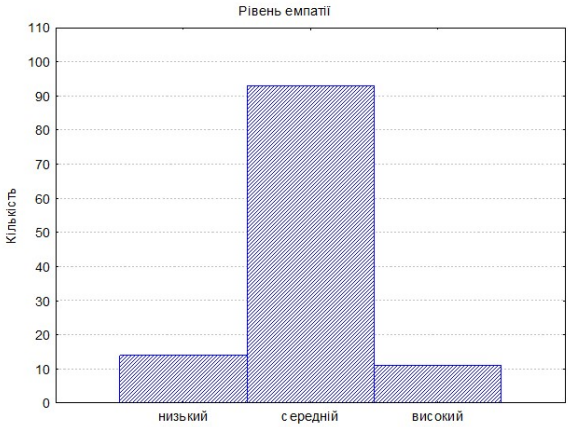



*Figure 2. Distribution of respondents by the level of artistic empathy.*

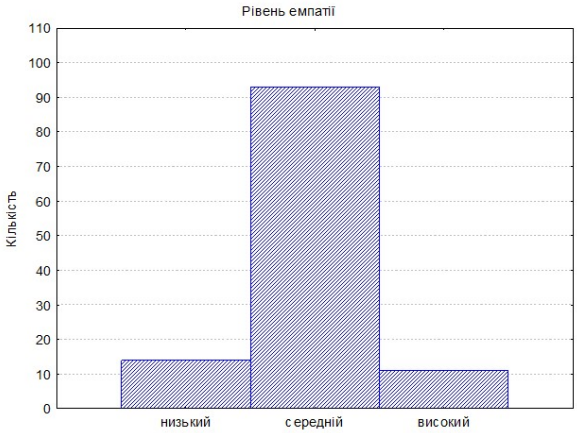



*Figure 3. Distribution of respondents by the level of prognostic artistic empathy.*

Table 2 presents differences in the indicators of artistic-imagery emotionality among future designers and artists with different levels of aesthetic intelligence.

*Table 2*

**Indicators of artistic-imagery emotionality among future designers and artists with different levels of aesthetic intelligence**

| Indicators | Low M | σ | Medium M | σ | High M | σ | H | p |
|---|---|---|---|---|---|---|---|---|
| Impressive emotionality of artistic perception | 1,14 | 0,90 | 2,40 | 2,42 | 1,74 | 2,47 | 3,55 | - |
| Artistic empathy | 5,43 | 0,79 | 5,20 | 2,24 | 4,53 | 1,98 | 3,04 | - |
| Prognostic artistic empathy | 2,14 | 1,46 | 2,47 | 2,36 | 2,21 | 2,64 | 0,56 | - |

A nonlinear dome-shaped relationship was identified between the level of aesthetic intelligence and the indicators of impressive emotionality and empathy of artistic perception.

**Conclusions.** Aesthetic intelligence is the ability to understand, analyze, interpret, evaluate, and use information about objects and phenomena of surrounding reality of natural or artificial origin obtained through aesthetic perception in order to solve everyday and professional tasks.

Aesthetic intelligence is a complex multidimensional phenomenon integrating perceptual, emotional-value, cognitive, and cultural components that determine the depth and quality of aesthetic cognition. The ability for subtle sensory differentiation, emotional response to artistic images, analytical processing of their structure, and semantic interpretation forms the foundation of the creative activity of future designers.

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**Ethics, funding, conflict of interest**

Ethics. The authors confirm adherence to publication ethics principles and standards consistent with COPE and the recommendations of international medical editors. Funding. No external funding was received. Conflict of interest. The authors declare no conflict of interest.

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Додатки



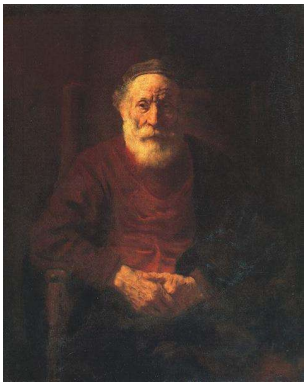
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Іван Крамській — «Незнайомка» (1883)



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