

## Learn without Learning: Experience of Art Perception in Museum (Experimental Studies at The State Hermitage Museum)

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### Abstract

*Education theory and practice of art have grown up. The participants of museum's educational programs define the main purpose and value of the programs as the development of their own creativity and feeling of fullness of life.*

*Experimental studies of the experience of art perception using exhibits of The State Hermitage Museum were carried out (2011 – 2018). We aimed to study how emotions are reflected in the bodily reactions as a person chooses and obtained data that allowed us to conclude: the perception of works of art is an organismic reaction and a controversial verbal assessment. Psychophysiological measurements (blood pressure, heart rate) were combined with the use of psychological techniques: monitoring, verbal self-assessment and projective techniques. The perception of some works of classical art turned out to be a life-event for the participants, regardless of possessing special knowledge or experience in museum visiting in the past. We can talk about a sufficiently strong experience, changing a person.*

*The Museum teaches without learning, authentic museum exhibition space sets the situation of perception, demonstrating the creative potential of a person. The creative potential develops in a realization of one's own feelings, in choosing a work of art that arouses integral perception, in the ability to not just survive the aesthetic sense, but also find the beauty of life, which encourages growth and development, in the emergence of a new view of a familiar reality. The findings of the research process allow conducting educational individual work with the audience, perceiving a work of art, and create new programs for the museum.*

**Keywords:** *art perception, experimental studies, bodily reactions, authentic museum exhibition.*

### 1. Introduction

What is the place of the museum in art education? The museum exhibition helps to study perception and an impact of works of art. But this is not always recognized by the recipient. Art comes from deep human phenomenology, expressing both conscious and unconscious dynamics of mental activity. A work of art is an expression of psychic intentionality of the author, and the perception of this work expresses mental intentionality of the recipient. This article deals with the perception of art at museum exhibitions.

### 2. Previous studies review

Modern psychological science traditionally refers to the psychology of art perception in terms of the study of psychophysiological effects of form, color, and composition of works of art [1,2]. Cognitive psychology seeks psychophysiological correlations of perception of works of art in the field of functions of the brain, and the mechanism of consciousness in the perception. In recent years, neurasthenics have had an active role: studies were conducted in the fields of memory representations, the implicit preference of classical and contemporary art, and of the mechanism of empathy [3, 4]. Researches into psychology of art preferences have two approaches: studies into personality and studies into judgment [5].

The problem is how to integrate sensory data, gathered from the visual system, with semantic knowledge. The theme of synthesis of the sensor and the social as the elements of art experience was developed by L.S.Vygotskiy in russian psychology of art [6]. Modern psychologists consider the unconscious processes, preceding the assessment, as the predictors during aesthetic evaluation. Existing expectations and social purposes of viewer determine the speed of interpretation of the work of art. The beauty exists "in the eye of the beholder"[7]. Experimental studies of the recent years have shown that the name of an artist is the predominant of the perception. Images of paintings by V.Kandinskiy, V. P.Picasso, S.Dali, R.Magritte and others were used as the objects of perception [8].

There are some researches replicate findings of art perception in museum contexts [9, 10]. They concern time, distance of viewing and some social characteristics of visitors. The last psychological study, used studies at the museum exhibitions, examines real emotions of visitors, compares



masterpieces and fakes, and views other problems [11]

The main idea of the present research is to study organismic perception and evaluation. Organismic reaction - is an organismic evaluating process, in which values are never become fixed or rigid, and feeling are accurately displayed in characters, and are continually re-evaluated in terms of organismic satisfaction [12]. A. Meneghetti wrote about the organismic perception as a global perception inherent to human nature. To act in an existential man has a body. This is the only tool that the soul has for its being a history [13].

### 3. Methods

The research of the art perception at the State Hermitage Museum consisted of 2 parts (classical and abstract art) and was conducted in 2011 - 2018. 120 persons took part in the study. The study was experimental, investigated both physiological parameters, analysis of associations and life events of the participants.

Observation methods were combined with physiological measurements, self-evaluation and projective methods. To study the psychological characteristics of participants we used the following: Budner's Scale of Tolerance – Intolerance of Ambiguity, Langle–Orgler Existence Scale (Existenzskala), Hardiness Survey S.Maddi, Life Orientation Test — LOT, Questionnaire for studying attributive factor. For statistical analysis of data we used SPSS.20: frequency analysis, mean values, correlation, the t-test, paired comparison of dependent samples, and factor analysis.

### 4. Results

One feature of the research of classical art (N=40) is that we have put together an experimental study of art perception with the study of emotional experience and involvement by the individual's own life experience for understanding the impact of works of art. Six well-known masterpieces were used as the stimulus material.

 <p>Rapfael Santi "Holy family"</p>	 <p>Canova Antonio "Cupid and Psyche"</p>	 <p>Heda Willem "Breakfast with a crab"</p>
 <p>Roden Auguste Cupid and Psyche"</p>	 <p>Picasso Pablo "Green pan and black bottle"</p>	 <p>Rembrandt "Holy family"</p>

Fig. 1. The stimulus material: well-known masterpieces (2011)

Organismic reactions were recorded with methods from sport's psychology (Marishchuk, 2005) by measuring facial expression, pantomime, vasomotor, pilomotor, autonomic reactions, heart rate, blood pressure and the use of such methods as Lusher's test for measuring vegetative coefficient and overall deviation from autogenous norm. As a result of the study and data analysis we detected a statistically significant change in organismic reactions of the experiment participants ( $p < 0.05$  to  $p < 0.01$ ). Informational impact on the viewer from the work of art exists regardless of how this impact is recognized by the viewer.

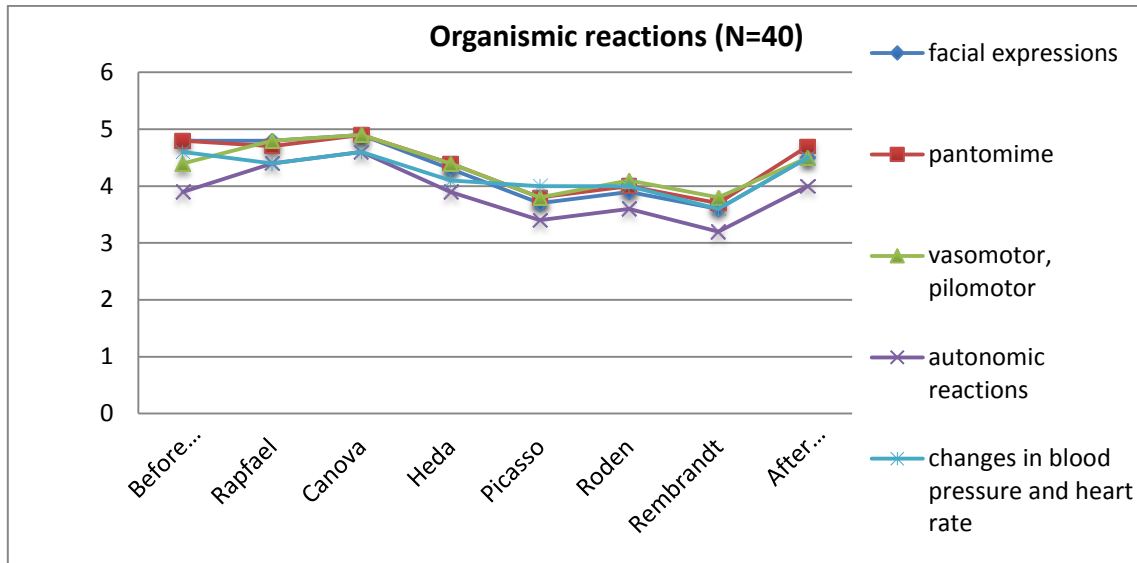


Fig. 2. Changing of the organismic reactions of the participants (N=40)

Obtained data allowed us to conclude that the classical art perception challenges to organismic reaction and conflicting verbal assessments. Participants told about their life events, they had in memory during art perception. The coincidence of organismic reactions, verbalized evaluations were found during perception of Raphael and Canova. The results of discrepancy of organismic reactions and self-assessment were received for Roden and Rembrandt.

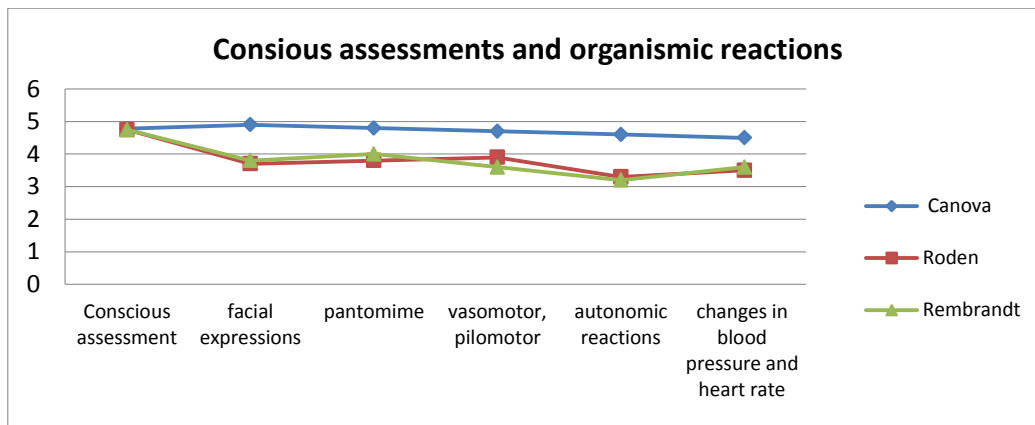


Fig. 3. The discrepancy of organismic reactions and self-assessment

Such a discrepancy can lead to anxiety, which hinders complete perception and causes unpleasant memories. Awareness of bodily reactions, emotional experience and life events by the participants showed that the experience of art perception could lead to a change of the existential experience. The visitor leaves the museum satisfied and filled with new feelings. The museum teaches without teaching. The visitor learns without learning.

The research showcased the relationship between indicators of Hardiness ( $r = 0.409^{**}$ ), self-transcendence from Existence Scale ( $r = 0.480, **$ ) and psycho-physiological parameters of the participants. It revealed the psychological characteristics of the person, allowing him to realize the perception of art as a psychophysiological process and life event leading to existential growth. Interestingly enough, there was no difference between the museum staff and visitors in the perception of works of art. There was the difference in interpretation of art impact.

In the perception of abstract art painting (N=80) we also detected a statistically significant change in physiological parameters ( $p < 0.05$  to  $p < 0.01$ ). Experiment was organized on exposition of V.V.Kandinskiy at The State Hermitage Museum. Three abstract compositions were chosen as stimulus material.



Fig. 4. Stimulus material: three abstract compositions (2017)

Consciousness evaluation of paintings was significantly higher than results of measurement of organismic reactions. It was decided to use participant's associations as spontaneous evaluation. Participants attributed evaluation of associations: directly to the work of art, to the Museum, personal perceptive feelings, and personal experience. Three components of attributive association's factor were selected. Positive emotional value was attributed to the synthesis of perception and painting (,783; ,809; ,808) low emotional value was attributed to the synthesis of the previous experience and Museum (-,013; ,809; ,840) and contradictory emotional value was attributed to the synthesis of perception, Museum and painting.

Factor of attribution of high value positively was related to love of abstract art ( $r=0.340^{**}$ ) and personality as mature expression of emotionality ( $r=0.325^{**}$ ). Factor of attribution of negative association is typical to those participants who have high intolerance to uncertainty ( $r=0.317^{**}$ ), lower degree of disposition optimism ( $r=0.365^{**}$ ), lower degree of self-transcendence ( $r=0.425^{**}$ ) and personality ( $r=0.317^{**}$ ). We found synthesis of sensor and social parameters. Participants didn't want to take responsibility for their negative feelings. They attributed associations to Museum.

Cognitive activity on understanding of the abstract paintings without awareness of bodily reactions led to a decrease in self-assessment of emotional state. The change of emotional state of participants can be observed visually: curiosity is often replaced by tension and desire to understand. The desire to understand abstract art involves the synthesis of sensor and social parameters.

## 5. Conclusions

The findings of the research process allow:

- To use new holistic approach to the study of art perception in bodily reactions and synthesis of sensor and social factors;
- To develop new methods of studying art perception at the museum;
- To highlight the psychological characteristics, which allow grasping the impact of works of art;
- To use the results in new educational programmes.

The role of the Museum is that the visitor is given the opportunity:

- To become aware of the feelings;
- To choose a work of art which evokes holistic perception;
- To experience not just an aesthetic emotion, but to find the beauty of life associated with their own life experiences;
- To recognize the emergence of a new look at a familiar reality.

The Museum teaches visitors to learn without learning: to recognize internal criterion of perception.

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