

The duality of art and science through neurotransmitters an applied study in the field of visual art

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Abstract:

Throughout the history of art there are many examples of the duality of art and science, but these few examples that have been highlighted illustrate how important art is in helping us understand many scientific issues, and the potential that art offers to science by applying an artistic lens to these scientific topics. Art and science together help us interpret, study and explore the world around us.

In this applied research study, the effect of hormones on the psychological state of human beings was addressed. Hormones have always manipulated human feelings, both men and women, and this manipulation reached its peak during the period of the spread of the Covid-19 virus. Some became more vulnerable to mental illness. During that period, we became closer to dolls moved by hormones, exposing them to the harshest fears and darkest perceptions. The hormones formed masks that made us see reality not throughout the eye of truth, but we saw it throughout the eye of fear.

Hence, the researcher produced a group of artworks regarding with how hormones manipulate our feelings and bodies and presented them in an art exhibition called neurotransmitters. Where the hexagonal shapes, which are hormones in their chemical form, were used in plastic solutions with the characters of the artwork. The human body is an arena in which hormones struggle to color our daily lives with different feelings: happiness, confusion, sadness, anxiety, nervous pressure, and others, transforming life into a human drama, few of us are aware of its meaning and understand it, but the majority wear the hormonal mask and are ignorant of the fact that this struggle exists daily after day, hour after hour, moment after moment. The colors used add another dimension to the artwork, as the color does not carry the conventional meaning, the white is a symbol of purity, another meaning is hidden behind it, and the black does not necessarily mean sadness, the symbolic intake is different, varied, and proportional to the effect of each hormone.

Key words:

Neurotransmitters – hormones – artwork

The Introduction:

How are you today? A question whose answer requires sessions inside the psychiatrist's office. We answer it in a few seconds, and the truth about our conditions remains hidden, sometimes hidden even from ourselves.

The Neurotransmitters Art Project deals with the stories of people who have gone through psychological, nervous and intellectual experiences, in which our human bodies have turned

into an arena of disharmony and harmony in which each of our hormones and neurotransmitters is present. They understood his mask and the mask of others, and some of us did not feel the need for a mask.

Paintings are not the whole story, but a moment in the story that has a before and after. A moment shaped by a hormonal change, whether it be a moment of joy, pain or...

This exhibition was held about the scientific dualism of art or the artistic of science, which may have faced strong opposition by artists before researchers and scientists. This duality extends its roots from a long time ago and appears beginning in the "Fibonacci" sequence, which formed the basis of the golden ratio that Leonard Da Vinci applied in many of his artworks. These artistic creations that belong to the Renaissance era confirm that "the relationship of art with science is not new, but rather shedding light on it again is an attempt to revive an old idea and understand it.

We also find the duality of science and art in the future school, whose artistic works were inspired by the beginnings of the study of motion in films, influenced by the idea of the frames that make up a single photographic shot, when the speed of the photographed film is slowed down. The Futurist School is an artistic movement that emerged in the early twentieth century. This school aims to capture the energy of the modern world and present it in the form of art, in addition to presenting industry and technology. This school produced paintings that indicate the dynamic ideas and movement of modern life.

The connection of art with science is an idea that dates back to ancient times and eras, and even to the first ancient human civilizations, where archaeological discoveries tell us about drawings, sculptures, and even musical instruments in which man imitated nature, in order to find a kind of daily relationship with it, understand it and become familiar with it, and these The historical evidence that was found in Mesopotamia and in ancient Egypt, and later in different regions of the world, reinforced the understanding of this relationship, which developed to become clearer, then, with regard to realizing its existence." This understanding was embodied in the eighteenth century, when it was Art, during the Renaissance, embodied its identity through the science of nature, and in the perspective of the teachings of that era, the concept of art changed, and then this understanding moved to society more deeply. In this exhibition, the researcher went beyond the traditional use of visual elements with familiar connotations [1], to call for elements Unconventional or usual art, we find in this experiment the transformation of chemical symbols into elements with special aesthetics that enrich the artistic experience of both the artist and the viewer. It is also useful in developing the development of contemporary art itself, as well as in linking art with social issues and in introducing society to scientific issues.

Research Problem:

Is it possible to enrich the field of photography through the reciprocal relationship between art and science in general, and to deal with photographic works on a scientific or rather medical subject, such as neurotransmitters in particular?

Research Aims:

This research aims to shed light on the importance of the duality of science and art historically.

- Analyzing the works of the Neurotransmitter Gallery as a contemporary artistic model for this duality.
- Increasing awareness of the issue of hormonal imbalance and its psychological effects, which lead to a number of mental illnesses that are prevalent in our contemporary societies.
- Producing works of art related to society and its conditions - in particular the Corona pandemic and its role in increasing hormonal imbalance and increasing the incidence of panic attacks and depression.

Research Hypotheses:

- Research is a realistic and effective solution to increase awareness of some mental illnesses associated with our contemporary lifestyle.
- The research explains the imbalance of neurotransmitters and presents its scientific roots in a smooth technical way.
- The ability to test Aristotle's purification theory through the researcher's dialogue with the visitors of the exhibition and deduce the ability of artworks to self-heal.
- Definition of scientific terms and names of hormones and their impact on the human body and the psychological state of people in an attempt to simplify a complex scientific issue into a simple form that is easy to understand.

Research Methodology:

- The analytical descriptive approach in the theoretical framework and the semi-experimental approach in the practical framework of the research

Research Importance:

- The current research derives its importance from the importance of the issue of neurotransmitters and its association with many mental illnesses prevalent among our contemporary society.
- Addressing the topic increases awareness and leads to a dialogue between recipients of art and artists alike.
- Reviving the duality of science and art in contemporary Egyptian works of art.

Research Results:

- The necessity of dealing with artistic works of some scientific and medical issues for ease of understanding and increasing awareness of them.
- Plastic art has capabilities to put the recipients of artworks in a healing state based on Aristotle's theory of purification, and we must take advantage of this therapeutic dimension of artworks.
- Fine art is more beneficial to society when it deals with important and pivotal issues in contemporary societies.

Recommendations:

Linking plastic art to some scientific facts, especially scientific topics of contemporary importance, gives a therapeutic dimension to artwork. We are in the era of self-healing and healing through the arts. This concept is not new, but it has roots in Greek philosophy. Aristotle's philosophy is about purification, which is a medical term. In Greek, watching artistic works that carry feelings constitutes a process of purification and unloading of the charge of similar feelings in the viewer, and this philosophy developed and emerged from it the most famous psychological treatments affecting psychodrama. The researcher recommends making the healing arts axis one of the main themes in scientific fields and conferences.

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