LUPINE PUBLISHERS

Journal Of Anthropological And Archaeological Sciences

DOI: 10.32474/JAAS.2025.11.000372

ISSN: 2690-5752

Opinion Article

Serendipity as a form of Comprehension of Innovation in Science and art

Anvar Gofirovich Mukhiddinov*

Doctor of Philology, Professor, Repablik of Uzzbekistan, Ferghana State University, Russia

***Corresponding author:** Anvar Gofirovich Mukhiddinov, Doctor of Philology, Professor, Repablik of Uzzbekistan, Ferghana State University, Russia

Received: November 22, 2025 **Published:** December 01, 2025

Keywords

Serendipity; Aferent; Efferent; DNA Calculus; Intention

Introduction

Significant progress has been made in the study of the brain in recent years, but understanding how the brain's substance functions as a single whole as a result of the interaction of an infinite number of neurons requires further in-depth research. It should be mentioned that such studies should involve the use of non-invasive methods (this is a method that does not require direct contact or modification of the surface or internal structure of the object). The role of serendipity (instinctive (intuitive) foresight, serendipity (from English) is substantiated. — "serendipity" - the ability to draw deep conclusions from random observations, to find something that was not intentionally sought) as a unique property of the brain, providing the search and comprehension of innovation.

Neuro-linguistics, which became a separate interdisciplinary science in the 50s and 60s of the last century, played an important role in the scientific identification of the problem of studying the deep generative basis of the brain substance. This science serves as a prerequisite for the scientific identification of the substance of the brain and its phenomenal properties, including the phenomenon of serendipity.

The dominant role of deep three-dimensional (material, energy and information) neural substrates of the brain substance, functioning at the level of DNA calculations, allows the establishment and coordination of the mechanisms of neurons in the cerebral cortex (neocortex), without conscious intervention.

In 2002, American scientist L. Adleman [1] and his research group solved an extraordinary problem using DNA calculations. In particular, they solved the problem with 20 SAT variables, which has more than 1 million potential solutions. Using biochemical methods, the "wrong" filaments were eliminated, leaving only those filaments that "satisfied" the problem. Analysis of the nucleotide sequence of these remaining chains revealed the "correct" solutions to the original problem.

It should be assumed that the neural mechanisms of the unique phenomenon of serendipity are based on the binary abilities of the brain. In recognizing and comprehending innovations in the form of serendipity in the creative process, intentions are crucial — the orientation of consciousness and thinking towards any subject. Unlike desire, intention is understood as a planned plan of action [2]. Inspiration and the need to discover innovations lead to the emergence of a creative personality with a strong emotional attitude and the need to discover new aspects of the realities of life.

There are many examples from the creative biographies of famous artists that show that great artists experience a surge of new energy and enthusiasm based on serendipity when creating unique works.

Serendipity as a complex form of cognition cannot be represented in the sphere of consciousness in its entirety. A creative person with unique abilities initially covers only certain aspects of innovation, which are later clearly identified in the neural network of the cortex due to the establishment of afferent and efferent connections between the cortex and the deep sphere of the brain [3]. The deep subcortical substance of the brain, which is completely devoid of human qualities, reacts to the strength and character of intentions and provides nervous energy to the corresponding centers of the cerebral cortex. Due to the arrival of new energy impulses in the neural network of the cortex, serendipity mechanisms are triggered, allowing us to comprehend and actualize new aspects of serendipity.

In the works of composers, for example, F. Schubert, colorfulness is achieved due to the harmony of major and minor. In Picasso's work, art historians distinguish between the "Blue" period (1901-1904), in which shades of blue predominate in the master's palette, and the "Pink" period (1904-1906), when the artist preferred pink and gold. Pablo Picasso noted: "If I draw a wild horse, you might not see the horse…. But you will definitely see the wildness!

According to futurology forecasts, the year 2045 will mark the era of technological singularity, when computers will be exponentially smarter than humans. It must be borne in mind that the most advanced IT and supercomputers are created as analogues of the human brain, which will retain its dominant position even in the era of technological singularity.

References

1. Adleman L M (1998) Computing with DNA, Scientific American pp. 34-41.
2. Pierre Cabanne (1977) Pablo Picasso: His Life and Times. — Morrow, — 616 c. — ISBN 978-0-688-03232-6.
3. Kurzweil R (2005) The Singularity Is Near. N. Y.: Viking.

DOI: 10.32474/JAAS.2025.11.000372