

WHAT IS NEURON ?

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Received: 03.03.2025

Accepted: 28.03.2025

Published: 02.04.2025

Abstract: Neuron is the cell whose function in live organisms is equivalent to the neutron particle function in matter atom. Neutron role in matter atoms is to establish and keep atom charge neutrality (all atoms in periodic table of elements are neutral). Charge neutrality means that subject which we analyze exhibit neither positive nor negative charge (proton and electron are positively and negatively charged elementary particles, respectively). Further on, all compounds and multiple atom combinations in nature are also neutral. Single cell organisms exhibit charge neutrality, too. They release their neutrality by the RNA-DNA function. Multicell organisms also present themselves to the outer space as neutral. That neutrality is accomplished by neuron function.

Keywords: CNP, Compton frequency, electron, proton, neutron, RNA, DNA, neuron, brain.

Introduction

Charge Neutralization Process (CNP) unifies all forces in nature, creates matter and life and constantly keeps the whole universe in an equilibrium state.

Electrons and protons are elementary particles whose estimated decay time is 65 billion years, what is the other name for eternity. This article argues that the universe is governed by a unique process - **Charge Neutralization Process – CNP**. CNP constantly acts through the whole universe, forcing elementary particles (electrons and protons) to form and sustain electrically neutral material products, listed in the Periodic Table of Elements.

After Hydrogen formation, two or more **electron- proton pairs** were forced to establish electrically neutral structures (matter creation). That was not possible without additional particle-like energy constructs. CNP created neutron(s)- **temporary particles**, which were added to the nucleus structure in order to establish neutral products.

CNP unifies all forces, acting on the every level of dimension and complexity : atomic, molecular, cellular, planetar, galaxy,... creating neutrons, RNA, neurons, neuron bundles (brain), our planet core, and so on.

Elementary particles Electron has toroidal structure (2) consisting of $\lambda_e/\lambda_x = 19206$ electric energy ($E = hf$) rings ($E = \hbar\omega$) - photons (λ_e is electron gravitational mass wavelength, λ_x is Duane-Hunt wavelength). Protons have the same structure as electrons , but different mass, $m_p = 1836 m_e$, consequently; 1836 times more rings (photons).

Electron model is shown on Fig. 1

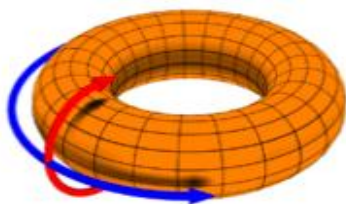


Fig. 1

Under the specific condition, similar to the Big bang description, electron - proton pairs formed hydrogen atoms.

In normal living conditions they last essentially forever. Electron (and proton) fine structure is established from two (electric and magnetic) trapped and locked vortexes in resonant state (2). In a hydrogen atom, electron-proton **energy circulates in such a way that the overall atomic charge is always neutral**. As charge is directly dependent on the vortex energy path (space energy distribution) it is obvious that hydrogen neutrality is maintained by adjustment of the proton energy circulation path.

How electron - proton charge can be neutralised?

Electron and proton fine structure dictates what must happen to establish lasting charge neutral product. Proton energy circulation length is 1836 times longer than electron, what suggest that proton energy circulation length has to be adjusted („diminished“) to the electron energy circulating length. That is why proton is forced to the center of electron and that is criteria how nucleus and atom radius are determined.

If hydrogen atom is exposed to some source of neutrality disturbing energy (that energy will be sensed by electron thanks to the its position), which can not be compensated by proton circulation path adjustment, CNP will generate additional energy construct – **neutron**, which is sum of electron and proton energy, concatenated in unique entity, placed in nucleus, forming deuterium, hydrogen isotope. Neutron function is to add/subtract needed amount of energy (charge) to sustain overall atom neutrality. If disturbing energy continues to violate established deuterium neutrality, CNP will add another neutron, forming tritium.

Free neutrons decay in 885 ± 15 s. Neutron decay refers to the process where a free neutron outside the nucleus breaks down into a **proton, an electron, and an antineutrino**. This decay occurs due to the neutron's instability and has a very short lifetime.

We are also considering the neutron decaying to two or more particles, at least one of which is a new (dark) particle, from outside of the Standard Model, hence the name **neutron dark decay**.

If disturbing energy has a pulse shape of high energy level, CNP will move hydrogen electrons from ground level to the first upper energy level. Radius of the upper electron energy circulation level is greater than ground radius, in order to diminish the influence of incoming disturbing energy which is manifested as electron charge fluctuation. When such disturbance vanishes, the electron will fall down to its previous energy level, emitting an amount of energy (photons) which causes a change of its orbital position (energy conservation).

Matter

From the PTE we see that atomic numbers increase steadily, one by one (from 1 to 118). How can we decipher neutron numbers within matter atoms?

Number of neutrons is determined by CNP, based on atom **electron configuration**. When we look at the matter atom(s) we see " electrons only", as protons and neutrons are deep inside (hydrogen electron and nucleus radius ratio is 10^5). For arbitrary numbers of electron - proton pairs, CNP will **create as many neutrons as needed** and add it to the nucleus, resulting in atom neutrality (for example, Mercury atomic number is 80, but has 120 neutrons). Matter atoms, once created as neutral, are the subject of intensive CNP surveillance. Existing matter in the whole universe is **simultaneously** checked and maintained in neutral state with **Compton frequency rate** (7.81×10^{20} Hz) !!! In case that incoming energy violates atom neutrality, making an impact on valence electrons, CNP will react by adjusting neutron(s) – proton(s) circulation path(s) within the nucleus, maintaining once established charge neutrality.

All matter products, (atoms, molecules, compounds, lifecells, planets, stars, galaxies, universe) are the subject of CNP.

Single cell organisms are made of materia. All of them have the same principal structure : membrane, internal liquid and nucleus. **Function of cell's nucleus is the same as the function of the nucleus in an atom:** it contains such matter products whose function is to establish neutrality of its own cell membrane, which is exposed to the outer world. When cell is the subject of incoming energy, which we can value as disturbing (we refer to matter description above), membrane valence electrons will change their charge, and it will be compensated (neutralization) by nucleus reaction (modification of neutron- proton energy circulation path in case of atom), creating pre-RNA structure. Pre-RNA is made by CNP, principally in the same manner as neutrons, with the same purpose: to establish and maintain charge neutrality of the membrane. In this case CNP acts on a higher level of complexity.

When the disturbing energy stops (one example is sunlight energy during night), existing pre-RNA becomes an INTERNAL source of membrane valence electrons disturbance. CNP solution is : internal pre-RNA will be neutralized by conjugate bases (**A-T, C-G**), thus creating pre-DNA.

In the process of evolution, at some point in time, pre-RNA, turned to the RNA and consequently to DNA structures.

Multicellular organisms are subject to CNP as well, on the higher level of complexity.

In the case of homo sapiens, skin is a membrane which divides the body from the external environment. Through the evolution process, CNP created a stabilisation vehicle : **neuron, which ends in the brain**. Brain function is equivalent to atom and cell nucleus function : establishing and maintaining membrane neutrality. That neutrality is realized by neuron's function.

Brain is a memory made of neurons. All body neurons end up in the brain. During the evolution process, neurons were organised according to assigned function (visual cortex for example). **Brain does not possess any processing ability**. Brain function is to store electric images generated **externally (our senses) and internally under free will (our desire)**. Brain **electric image** is the source of neurosignals whose function is to establish charge neutrality of violated valence electrons. Brain activity is under CNP's permanent dynamic control and influence.

How nature (CNP) created neurons?

Neuron creation will be explained as an example of sense of light creation.

Neuron formation started from the scratch. There was not any knowledge regarding the structure and construction of visual cortex and neurons as DNA (RNA) did not exist at the very beginning of the evolution process. DNA was built from RNA in the neutralization process (CNP) as the up to date history of all sorts of cell's membrane valence electrons violated energy inputs. The DNA role in heredity process is clear, simple and unavoidable. The final goal, in the sense of sight creation, was to build such a mechanism which was able to successfully neutralise all eye's valence electrons, which are parts of rods and cones, when light enters the eye.

Neuron emergence in the eye evolution

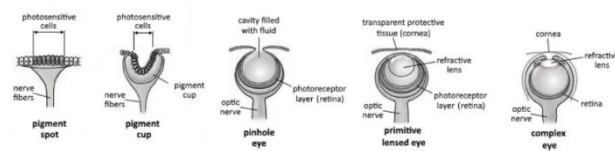


Fig. 4-2: Subsequent stages in the evolution of the eye—The sequence shows images of light-sensitive pigment spots and eyes of different species of mollusks. From left to right: limpet, slit shell mollusk, nautilus, marine snail, and squid. These images are edited renditions from various revised versions of (Strickberger 34).

Light has wide frequency spectra, each and every of them carries specific amounts of energy ($E = hf$), which change valence electron charge, and, as a consequence, their neutrality is violated. In order to respond to **all** neutrality violations, CNP produced (evolution is time scale) universal frequency response mechanism- visual cortex which is connected by optic nerve, with the eye.

How neurons and optic nerves emerged?

When light (photons) reach valence electrons in photosensitive cells, that energy will violate charge neutrality of that particular cell. That violation will be compensated by RNA creation, which is done by CNP action. In lack of the incoming light energy, RNA becomes a source of charge violation (internal) which is upgraded to the DNA as a result of CNP – first step of evolution. In the next step of evolution, first step DNA will start neuron creation by

implementing knowledge from the first evolution step – neuron emergence begins – evolution second step. This process is iterative according to the next routine:

The iteration routine in question is in fact derived from the *bilocal field representation* that is used in quantum electrodynamics—hence the use of the symbol B in Eq. 5.1 as it refers to “bilocal” (see Cahill and Klinger, “Self-Referential Noise and the Synthesis,” section 3). By stripping away all terms that refer to any presupposed geometrical aspects, the following update routine is achieved:

$$B_{ij} \rightarrow B_{ij} - a(B + B^{-1})_{ij} + w_{ij}, \text{ with } i, j = 1, 2, 3, \dots, 2M \text{ and } M \rightarrow \infty. \quad (5.1)$$

After big enough M , we will be able to recognise the tendency of visual cortex formation.

What is the final goal in visual cortex formation?

Visual cortex has to generate electrical signals as a response to incoming frequencies which, as we know, causes eye valence electrons' charge to change. Respons signal's frequency **MUST** be equal to the input frequencies in order to cancel **that** electron charge change. That is the reason why we see red as red (David Chalmers, consciousness hard problem). So, our sense of sight is the collateral gain of CNP. Our brain does not **CONTROL** our sense of sight, as the source of CNP is out of our body and mind. We can close our eyes, but we can not change the content of incoming light energy.

Now we are able to understand the enormous complexity of our organs. Their emergence and structural organization are dictated by the CNP, which is from the quantum domain. Nature (universum) performs CNP as a creativity process on **ALL** material products, **simultaneously**. DNA, which is also a CNP product, has a key role in the heredity process.

Today technology is deep in quantum computing.

Will quantum mechanics help us?

It seems that it can. The immediate solution seems to be that the universe is a quantum computer. It performs **ALL instructions simultaneously**. Seth Lloyd , MIT, describes quantum computer design as hacking the universe. On the question „ Is the universe in fact a giant quantum computer „, Seth answered was „, It could be „.

Let's go back a hundred years back in time. It was proved that light travels forever , without any attenuation. What kind of material (ingredient) is empty space ? It is some sort of superconductor.

Physics Nobel prize winner for 2004. Frank Wilczek, in his book *Lightness of Being* , describing empty space wrote that it is: “ The primary ingredient of physical reality, from which all else is formed, fills space and time. Every fragment, each space time element, has the same basic properties as every other element . The primary ingredient of reality is alive with quantum activity. Quantum activity has special characteristics. It is spontaneous and unpredictable. And to observe quantum activity, you must disturb it. The primary ingredient of reality also contains enduring material components. This make the cosmos a multilayered, multicolored superconductor. The primary ingredient of reality contains a metric field that gives space-time rigidity and causes gravity. The primary ingredient of reality weighs, with universal density.

Conclusion

Universe creates material products out of energy in charge neutralization process- CNP.

Neuron is one of CNP's products. In order to establish charge neutrality CNP created neurons as **COLLATERAL GAIN**.

Neurons are concentrated in the brain, which acts as primary quantum signal receiver/transmitter constantly performing CNP.

That is why our brain knows what we have to do 30 seconds before we are aware of that.

As Tatyana Chernigovskaya said : to whom belongs MY brain.

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