



RESEARCH ARTICLE

THE FIRST ELABORATION OF THE FIRST POSTULATE FOR CURRENT
NEUROSCIENCE AND, CONSEQUENTLY, A NEW DIRECT TEACHING-LEARNING
METHOD

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ABSTRACT

In this article, the author has the pretension to make the first elaboration of the first postulates of current Neuroscience (Neuroscience Theory). Subsequently, as one of the consequences of this first postulate, the author predicts or proposes a revolutionary new Direct Human-Machine Learning Method (or Direct Human-Machine Teaching-Learning Method). A method that can shorten the learning time and increase the amount of learning exponentially and develop other skills in the student in an unconscious or conscious state and without being enslaved him (or her). In this context, it is well known that Neuroscience, which is a multidisciplinary area of study, has attracted the attention of many scientific researchers and has presented the possibility of diverse applications in almost all areas of knowledge, for example: in Teaching and Learning, in Medicine, in Biology, in Computing, and so on and so forth. The reason for this is that technological advances from other areas of study to human knowledge have been directed towards promoting rapid and applied development in this multidisciplinary area. As a result, some older concepts about the brain → mind relationship have been abandoned and others proposed that are not yet well defined.

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1. INTRODUCTION

Nowadays, it is well known that scientific research has reached a very advanced stage of development compared to the beginning of the last century. This progress has led to the development of innovative experiments and technologies in scientific and social environments. This reality, over the last three decades, has sparked a great interest in using those experiments and technologies for the area of study of Neuroscience (Neuroscientific Theory). In this way, this is what has been done and Neuroscience has gone through moments of great scientific revolution in its own area.

In this direction, several new experiments and results have recently been produced and new scientific understandings introduced by a growing community of researchers in this multidisciplinary area of science ([Keshavan et al, 2024, [1]], [Gong et al, 2024, [2]], [Dubinsky, Hamid, 2024, [3]] among many others). Thus, some old ideas and concepts about the functioning of the brain → mind, which had no experimental proof, came to be refuted, that is, the experimental results in the present day were null or against such affirmatives. Given this fact, for example, recently, the article in Reference [Estanislau da Silva, 2024, [4]] supports a new proposal for understanding what was given as Schizophrenia (section 3 of that article). In this path, Neuroscience has been built as a theory with an experimental and phenomenological basis.

In this sense, the aim of this author is to propose the first elaboration or formulation of the first postulate of current Neuroscience (Neuroscientific Theory today). Subsequently,

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as one of the consequences of this first postulate, this author proposes a revolutionary new Direct Human-Machine Learning Method (or Direct Human-Machine Teaching-Learning Method). A Method that can shorten the learning time and increase the amount of learning exponentially and develop other skills in the student in an unconscious or conscious state and without being enslaved him (or her). Thus, contribute to the answer to the question: **How does the brain learn something?**

That way, it is through this path that the motivation came to this author to write this article, beyond the own conceptualization of what Neuroscience is as motivating excitations. Strictly speaking, current Neuroscience (Neuroscientific Theory) has been defined as the area of science where the nervous system and its functional and behavioral relationships with the other parts of the body and the formation of the mind are studied. Being a multidisciplinary area, it is divided into five major areas of study: Neurophysiology, Neuroanatomy, Neuropsychology, Behavioral Neuroscience and Cognitive Neuroscience, which are related to each other to form a whole: brain → mind, control of the body by conscience or conscious or no-conscience or unconscious action-reaction, voluntary or involuntary.

2. Some reminders of the modern scientific Method

In this section, the aim of the author of this article is to reaffirm the two fundamental principles of the modern scientific Method. But, before that, it's important to say: what is the main purpose of creating this Method? In this sense, the modern scientific method was invented to establish safe criteria and principles in the direction of carrying out experiments and theories through an objective, impersonal scientific path and in a language as free as possible from figures of speech, which mystify the unknown and even the already known.

The Method was established in opposition to the creation and propagation of deception, occultism, mysticism and charlatanism, which can be done through Science intentionally or unintentionally by those who produce it in human civilization. This fact occurred a lot in the scientific language used by scientists and non-scientists in ancient times and in the "dark ages" as a result of various causes of the time. Now, knowing what the aim of the modern scientific method is, then, in relation to the invention and construction of pure scientific theory or experimental-phenomenological theory, for these it is convenient to follow the two principles described below, in to restrict misleading ideas as much as possible:

1. All theories invented by normal human heads, until today, are built on a minimum number of **postulates** and a minimum number of **definitions** or concepts that cannot be refuted in the objective proposed by the nascent theory.
2. The **language** used to formulate a theory should be impersonal, without unnecessary multiple meanings, without controversies, without figures of speech, which generate a personal point of view, and so on.

There are other important procedures² for developing a new

¹Many scientists have written about the modern Scientific Method, for example: Issac Newton, René Descartes, Ibn Al-Haythan, et al. More currently, the Vienna Circle has given these principles the content of verification and the inductive method. Karl Raimund Popper logically assured that neither verification nor induction alone served the purpose in question, such as understanding reality as it is and not as one would like it to be, as the scientist must work with falsification, that is, he must make a hypothesis and test your hypotheses by looking not just for evidence that it is right, but above all for evidence that it is wrong. If the hypothesis does not stand the test, it is said to have been falsified. If not, it is said to have been corroborated [Popper, 1935, [5]], [Popper, 1963, [6]], [Wikipédia, 2023, [7]].

²Ditto footnote 1.

scientifically acceptable theory or experimental elaboration. But, it is not the aim with this article to elaborate a new theory. In this way, the reminder of these two principles dictated in the words of this author should be sufficient and necessary to help in the first formulation of the first postulate of current Neuroscience (Neuroscientific Theory) and, consequently, ensure the new and revolutionary Direct Human-Machine³ Interaction-Communication Method given in section 3 of the article in [Estanislau da Silva, 2024, [4]] and, by more other consequence, make the prediction of a new and revolutionary Direct Human-Machine⁴ learning Method (or Direct Human-Machine Teaching-Learning Method).

3. The first elaboration of the first postulate of current Neuroscience and its consequences

This section is dedicated to the first elaboration or formulation of the first postulate of current Neuroscience (Neuroscientific Theory) in the process of development to this day.

In this direction, it is well known that the interest in understanding the functioning of the brain → mind of both human and non-human is very old (you can consult it in [Keshavan et al, 2024, [1]] among many others). Thus, it is important to go back to Sigismund Schlomo Freud⁵ (1856-1939), who, among others, discovered that psychic processes⁶ are most of the time **unconscious** in relation to who they happen, the **conscience** being no more than a fraction of the total psychic life of the one with whom it occurs [Freud, 1905, [8]], [Freud, 1900, [9]]. From that, he concluded that we are not in complete control of our **mind** as we believe that we are.

In the days of Sigmund Freud and his contemporaries, there were some theories about this issue, but there was little technology to provide experimental measurements, at least that is what has been published. Today, almost two centuries after Sigmund Freud, every area of human science has had significant theoretical and technological development. For example: the study through Biology had an important advance for the understanding of animal and plant life, the study through Chemistry provided the understanding of various processes and chemical structures in nature and in the living body, the study of Physics Theory and Engineering provided the opportunity to build various technologies, such as interferometers, lasers and so forth.⁷

These scientific and technological advances have contributed to the development of an understanding of how the body and brain are made and how both work for our human generation. In relation to **brain** → **mind**, scientific researchers in the area of Neuroscience have assumed the proposal of the **mind** or **thoughts** as resulting from internal processes within the brain and **not** as resulting from **external processes** ([Ramachandran,

³ Interaction-communication can happen with a machine or with a non-machine resembling a human or with a human or with nature. This interaction-communication can happen as a spontaneous event or as a non-spontaneous event in a conscious state or in an unconscious (non-aware) state in relation to the brain → mind.

⁴ Idem footnote 3.

⁵ Many of the original writings and articles by Sigmund Freud are said to have been destroyed or prohibited at the time when he lived and soon afterwards. Then, many of his studies found today are translations with some interference from those who studied and published them. This fact hinders a better understanding of his studies, especially with regard to the unconscious.

⁶ Psychic processes occur to form what (or who) you are being for living

⁷ Nowadays, there are a vast number of articles concerning these technologies and scientific advances, which can be readily obtained. Therefore, the author of this article leaves it to the observer to search for some of these articles on the Internet or any other available medium, but be careful not to be misled by subtle or crass means.

2011, [10]) among several others), however it has resulted in some important contradictions with the areas of other Sciences studied separately. For the observant reader to be aware of this consequence, the author of this article recommends consulting the reference [Estanislau da Silva, 2024, [4]] or you can study current Neuroscience, Physics, Engineering and Philosophy, among others, separately and come to this conclusion and make your defense.

Then, from what has been exposed in the preceding paragraphs and the recent scientific work entitled *Some Scientific Controversies Compelling on Some Neuroscience Content in Recent Publications*, in [Estanislau da Silva, 2024, [4]], the author of this article elaborates for the first time the first postulate of current Neuroscience (or Neuroscientific Theory) as follows:

1st)The brain interacts by contact or at a distance with parts of itself, the body of the head of the brain and with the external environment in which it lives. This interaction results in information⁸ (thought, image, etc.), which can occur in a state of conscience⁹ (or in a state no-conscience) or in a state of unconscious¹⁰ (or in a state of conscious) of the living being awake or sleeping or asleep, of who has the functioning brain inside the head of his (her or its) body.

In this way, as one of the consequences or predictions, we humans can make a brain model System made up of biological circuits or equivalents¹¹, which are being completed by themselves and each other and forming and sharing information with each other with the passing of life. Another consequence or prediction is that the interaction of the brain with the outside, at a distance or in contact, can result in information (thought, image, etc.) **already ready** from outside, from the outside, into the brain of the head of the living being in a conscious or unconscious state and awake or sleeping or asleep. This interaction of the brain with the outside and at a distance or contact can occur via electromagnetic¹² interaction or other interaction that can make the same interactions and carry information: thought, image, communication, and so on. This interaction constitutes the external part of the mind, in other words, it is the **external part of the mind**, but not mystical.

⁸ The observant reader realizes that the complete interaction results in information or, in other words, the complete interaction results in the mind, which can be internal or external by the postulate itself. But the external part has no mystical meaning.

⁹ Conscience is the same as science, in the meaning of being aware of how something or an event occurs, being fully understood spontaneously or non-spontaneously. If this is ignored, a state of no- conscience is lived by the living being. Conscious has the same meaning conscience, but all information and its total understanding comes ready from the outside into the brain and without mysticism. If this is ignored, for example, through deception or lack of completeness of wisdom, a state of unconscious is lived by the living being, as explained in this article and in the Reference [Estanislau da Silva, 2024, [4]]. All these definitions and meanings are a consequence of the postulate elaborated for the first time by the author of this article.

¹⁰Unconscious has its meaning given in footnotes 9 and 8 and 3 related to each other.

¹¹ Biological, equivalent, similar, and so on, is what is defined as natural or unnatural in footnote 3. Unnatural, as the observant reader may become conscience, does not have the meaning of mystical or anything in this sense. The term conscience is the same as with science (footnote 9), which in everyday conversations or even in scientific conversations has lost its correct meaning due to the ignorance of those who use it. The term ignorance here is used without offense or prejudice, since ignorance can have many causes.

¹² It is important to think about the damage that can be caused by long interaction times or unfavorable interactions with the human body, with the machine body or with another body in interaction.

From the consequence given at the end of the preceding paragraph, the author of this article predicts that we humans can build a new and revolutionary Direct Human-Machine Learning Method (or Direct Human-Machine Teaching-Learning Method)¹³. This Method can shorten the learning time and increase the amount of learning exponentially and develop or make manifest other skills in the student (learner) in an unconscious or conscious state and without being enslaved him (or her). All this action can happen with little physical and mental effort than with the traditional method.

Another result obtained from this postulate and the concept of plasticity or cerebral adaptation or biological adaptation is that the best question to be made is not: Who am I? The best question to be made is: Who (or What) am I¹⁴ being by living?

4. CONCLUSION

Starting from existing scientific studies in articles and books available of the area of the current Neuroscience, but which presented some contradictions with other scientific areas, which were pointed out and explained in [Estanislau da Silva, 2024, [4]], the author of this article makes the first formulation of the first postulate of current Neuroscience (or Neuroscience Theory). Furthermore, as a consequence of this postulate, the author of this article predicts the existence of a new Direct Human-Machine Teaching-Learning Method¹⁵, which can shorten the learning time and increase the amount of learning exponentially and develop or make manifest other skills in the student (learner) in an unconscious or conscious state and without making mental and physical slavery in him (or in her).

Other consequences and predictions can also be supported from this postulate and some very clear and non-refutable definition, if this definition is not possible, then one can look for another postulate. This other postulate should complement the new Theory of Neuroscience (Neuroscience of today). Some of these consequences are made in section 3 of this article by the author of this article, but without the need for a second postulate. To better understand these consequences or predictions, it is important for you to read section 3 of this article. Thus, the proposal in this article is carried out.

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6. Statement of conflict of interest

Additionally, the author declares that there are not potential conflicts of interest in the authorship and participation of the scientific work studied and prepared here for submission to institutions of foreign or national scientific publications. Grateful!

¹³You can take a little of conscience of that relationship or communication by reading footnotes 3 and 11, in this order.

¹⁴Here, the term "I" has the meaning of unitary or unique and so on, but that doesn't exclude the existence of a "I" common to all of us, beyond to this common "I" may exist own "I".

¹⁵ You can take a little of conscience of that Method in section 3 of this article.



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