## NEUROTHEOLOGY – THE ULTIMATE HERMENEUTICS OF THE RELIGIOUS EXPERIENCE

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**Abstract.** The term "neurotheology" was used in the beginning in a more speculative meaning than in a true scientific one. Then the same term, was employed by some of the researchers in cognitive psychology or by the behaviorists, to explain more accurately the metaphysical feelings the need of supernatural, in general and the opening toward the phantastic realm. In this sense, an example is constituted by the ubiquity of the myths and symbols in relationing the human being to the sacred.

Keywords: neurotheology, the sacred, "homo religiousus", behaviorism

The sentence given by Gerhard Tersteegen – "a God, once understood, is no longer God" – is the doctrinaire foundation of the most recent hermeneutics of the religious experience of man, as one of the most powerful arguments to found a new border discipline – similar to the psychology of the archetypes, to transpersonalist psychology, tanathology, etc. – namely neurotheology, which confirms the new unified religious era, because it is an union among the psychology of the states of modified consciousness – studied on the scientific bases of neurotheology – and religious experiences of the ecstasy of a shamanic type.

The religious experience, from the archaic times to the modern and contemporary era, constituted a nucleus of the life of man, accompanying it and giving it meaning. In a life time, man experiments a multitude of ceremonials, more of less rendered sacred or laic, remaking certain models from archaic times, even if only symbolically. Even the " a-religious man", how Mircea Eliade names it, has a religious behavior, although it is not fully conscious that a ceremonial state exists. The initiation rituals, the rituals of renewal, find their expression in the behavior of the modern man, in his daily existence. Human existence is full of trials, and obstacles, often accompanied by sufferance that man overcomes to gain even more force and to grow, each of these as an equivalent of a symbolic "deaths" and "resurrections", that is, a process of initiation.

Mircea Eliade reminds us, among others, and of psychoanalysis as integrated in the initiation scenarios of the modern man: "Even if certain techniques specific to the modern times, for instance psychoanalysis, which still maintains the initiation scheme. The patient is required to go deep into his being, to relive his

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past, to face again his traumas, and this dangerous operation seems formally similar to the initiation descent in the Inferno, among the larvae, and the fights «monsters». As the initiate had to be a winner in the trials he was subjected to, to «die» and to «resurrect» to be able to arrive at a fully responsible and open to spiritual values, the patient subjected to psychoanalysis has to confront his own «unconsciousness», haunted by larvae and monsters, to regain his psychical health and to integrate in the world of cultural values.<sup>11</sup>

The celebration of certain events (The New Year's Eve, a new home, a promotion on the social level, etc.) represent in a more or less difficult recognizable manner rituals of renewal, with old roots that are to be found in all cultures and religions of the world: "In general, the majority of those « without religion» entertain pseudo-religions and degraded mythologies, which is not so much a surprise, since the profane man is the follower of *homo religiousus* and cannot simply cancel his own history, in other words, the behavior of his religious ancestors, to whom he owes what he is today."<sup>2</sup>

The perspective in conformity to which the contemporary man perpetuates a multitude of religious rituals as a consequence to the "inheritance" of *homo religiousus*, naturally raise a series of questions asked with a dramatic edge in the contemporary hermeneutics of the religious experience, namely: "What is it that determines contemporary man to reiterate these rituals".

Carl Gustav Jung approves by his analytical studies that each man brings along at birth, under the form of mental archetypes, the integrality of means placed at the use of humanity from the beginning of the world to define the relations with the world<sup>3</sup>.

Apparently it is not just about learning as explained by the Pavlov's psychological theory, but there is also something else going on there, namely: "The transcendental being exist in a transcendental way in the human being as a gene of God." Also, there is another important aspect to be considered: "This resilience and universality of the opening of men toward religion and/or magic raised the problem if this inclination is a purely cultural phenomenon or if it has an organic (biological) basis represented by a certain cerebral structure genetically determined through the organogenesis process and not epigenetically through the process of learning. The admittance of this morphological-functional substrate is the essence of what has been named *bio-theology* or *neural-theology*. In the year 2004, a distinguished geneticist, Dean Hamer, described a gene (VMAT2) considered responsible for the "construction" of the neuronal dispositive that determines the metaphysical feelings and that he named the *gene of God*. It is a

<sup>&</sup>lt;sup>1</sup> Mircea Eliade, *Sacrul şi profanul*, 2nd edition, transl. by Brînduşa Prelipceanu, Bucharest, Humanitas, 2000, p. 157.

<sup>&</sup>lt;sup>2</sup> *Ibidem*, p. 158.

<sup>&</sup>lt;sup>3</sup> Carl Gustav Jung, *Psihanaliza fenomenelor religioase*, critical edition, selection of texts, introduction and notes by Jean Chiriac, Bucharest, AROPA, 1998, pp. 71-74.

gene related to the biological construction, especially of the dopaminergic neurons of the *reward system* situated in the accumbency nucleon and from the ventral mezzo-encephalic aria. This system ensures rather the emotional connotation related to the feelings correlated with the experimentation of the transcendent. In 1997, a team of researchers from San Diego University led by Vilaynur Ramachandran, delimited a region in the prefrontal lobe responsible for our mental activity related to the supernatural realm and especially to the notion of God, region that he named metaphorically "*God's module*". "These data show that within human encephala there are privileged regions implicated in feeling correlated with the experimentation of the religious or magic supernatural"<sup>1</sup>.

Aldous Huxley used the term neural-theology for the first time in his utopist story, *The Island*<sup>2</sup>. The discipline studies the religious and spiritual experiences. Certain scientists categorize neural-theology as pseudo-science. But the studies in neural-theology are closely related to chemistry and neurology.

The term was then used by some researchers in cognitive or behavioral psychology who attempted to identify the neural and physiological bases of the metaphysic feelings (such as the dissolving of the time, space and self, the identification with the cosmos, the respectful fear of the supernatural, the mystic ecstasy, the feeling of Divine illumination, the feeling of the contact with God) of the need for the supernatural and for the opening toward fantastic.

In 1994, Laurence McKinney published his first book dedicated to the subject, entitled *Neural-theology: Virtual Religion in the 21<sup>st</sup> Century*<sup>3</sup>. McKinney writes in his book that only after the age of 3, the child creates an illusion of the chronological time, as a fundamental part of his or her psychology. The inability of the adult brain to remember anterior images creates the need for questions, such as: "where do I come from?" or "where does everyone go after death?" According to his theory, this fact leads to the varied explanations of the religions. The idea of experience of death as a change toward a new life makes most of the people embrace religion.

Recent studies, to localize the active regions of the brain while subjecting individuals to spiritual experiences, show that there is a more active zone of the brain, indifferently of religion or culture – that seems a confirmation of McKinney's theory – that the feelings associated to the religious experience are rather normal aspects of the brain functions, than a communication with God.

The American researchers Andrew Newberg and Eugene d'Aquili from Pennsylvania University, offered a new explanation, both profoundly simple and

<sup>&</sup>lt;sup>1</sup> Constantin Bălăceanu-Stolnici, Cristina Glavce, Magdalena Berescu, Adriana Borosanu, *Antropologia între cultură și știință*, Bucharest, Editura PRO Universitaria, 2010, pp. 124-125.

<sup>&</sup>lt;sup>2</sup> Aldous Huxley, *Insula*, transl. from English by Daniela Rogobete, Bucharest, Polirom, 2011.

<sup>&</sup>lt;sup>3</sup> Laurence McKinney, *Neurotheology: Virtual Religion in the 21<sup>st</sup> Century*, Cambridge, MA, American Institute for Mindfulness, 1994.

scientifically precise: the religious impulse is deeply engrained into the biology of the human brain. Newberg and d'Aquili based this conclusion on a long term research of the functioning and behavior of the human brain. They scanned using the medial imagistic using the magnetic resonance the brains of Buddhist mediators and those of a group of Franciscan monks during prayers and meditation. The two researchers discovered that extremely profound spiritual meditation provokes a modification in brain activity.

In other words, what Buddhist designate by the state of being one with the universe and the Franciscan monks describe as the real presence of God, is neither an illusion, nor a subjective psychological experience, or a phantasm of the subject. It is a chain of neurologic distinct successive events objectively observable and registered and even photographed.

In an article published in "The Washington Post", and signed by Shankar Vedantam at the  $26^{th}$  of June 2005, presents briefly a new direction in the neural sciences that attempts to explain the religious experience and the processes that are taking place at the level of the brain during such experiences<sup>1</sup>. The scientific world approached such subjects with specific means, within a new branch of the neural sciences, named *neural theology*. Scientists attempt to understand and explain these particular experiences, the religious ones, to measure them and even to reproduce them under laboratory conditions. With the help of the neural imagistic researchers explore the experiences defining concepts such as *nirvana* in the Oriental religions or the *state of grace*, experienced by the Christians. Briefly, the scientists ask themselves the question whether spirituality as involved by the religious experience can be explained in terms of neural networks, neural transmitters or simply as brain chemistry.

The studies suggest that the transcendental feeling of being one with the universe could be explained by a low activity of the parietal lobe that makes possible the perception of the self and controls the spatial and temporal orientation. The elevated feelings of love and compassion are presupposed to be generated by the changes produced in the frontal lobe during the concentration in the practice of meditation. It is discovered that the spiritual practices activate the temporal lobe, which confers a highly personal meaning to meditation, generating the conviction that religion has profoundly modified the life of that person – in conformity with the so-called theory of the temporal lobe model.

Brain is organized so that it can have these religious experiences – this is the fundamental thesis of neural theology. If there is no "axial" change taking place at the level of the brain, then religion and spirituality shall act within the parietal lobe for a long while. The brain is predisposed to have these experiences and this

<sup>&</sup>lt;sup>1</sup> Shankar Vedantam, *Culture and Mind: Psychiatry's Missing Diagnosis*, in: "The Washington Post", 26 June, 2005.

is why so many believe in God, sustained Andrew Newberg and Eugene d'Aquili<sup>1</sup>. It is necessary to state that the experiments presented by the authors of the treaty of neural theology refer to experiences during meditation of Buddhist monks and to the "mystic union" – *unio mystica* – lived by the Franciscan nuns who have taken part into this research. This type of experiences was defined in varied manner in the studies and theoretic approaches developed in neural theology.

As following we shall present the characteristics of the religious experiences, as resulted from the studies made by the neural theology scientists and identified by observation or personal remembrance.

The first of the characteristics of the religious experiences involving ecstasy is losing the perception of the limits of the self and of the spatial and temporal orientation. From here we have a second characteristic, namely the disappearance of the dichotomy Self-Someone else, followed by visual and additive hallucinations. The state can be named "ecstasy", because it is accompanied by the feeling of transcending ordinary reality, of space and time. As well, there are mentioned feelings of inner unity and cosmic union, too. The subjects said also that they had the perception of a presence, of another reality, totally different from the one associated with the human being, perceived as the superior and absolute Being. This state is characterized as a "spontaneous knowledge" (*insight*) of the nature of the universe, a perception *of the sacred and of the ineffable*, too.

The multitude of feelings – visions, near death experiences, mystic and numinous experiences, all are invocated as major arguments of neural theology in favor of the ,, transcendental unity of the religions<sup>2</sup> on the verge of being accomplished in the postmodern era – that can lead to the transformation of personality in the sense of the accentuation of certain traits such as the compassion, altruism, devotion, or even the love for fellow human beings<sup>3</sup>.

The cognitive sciences explored the rational capacities of human brain/mind, but granted little attention to the other more elevated functions. Stanislav Grof, the promoter of the transpersonal psychology and renamed personality in the picture of the New World described by the New Religious Movements, analyses, in turn, with different means (respiration techniques, psychedelic substances, dance, sound, etc.) the same range of feelings. Grof names these states "holotropic", as a different class, inscribed into the category of the modified states of consciousness. Although the holotropic states of consciousness do not have as a component the

<sup>&</sup>lt;sup>1</sup> Andrew Newberg, Eugene D'Aquili, Vince Rause, *Why God Won't Go Away. Brain Science and the Biology of Belief*, New York, Ballantine Books, 2002, p. 199. <sup>2</sup> Frithiof Schuon, Despress unitstant for the second states of the second states

<sup>&</sup>lt;sup>2</sup> Frithjof Schuon, *Despre unitatea transcendentă a religiilor*, transl. by Anca Manolescu, Bucharest, Humanitas, 1994.

<sup>&</sup>lt;sup>3</sup> Raymond A. Moody Jr., *Viața după viață*, transl. by V. Zatuşevschi, Braşov, Editura Adevăr divin, 2011, p.17 s.q.q.

loss of spatial and temporal orientation, they are still characterized as dramatic perceptive changes in all the sensorial areas. They could be accompanied by visions and experiences that describe different aspects of the animal or vegetal regnum, of nature in general or of cosmos. There could appear also experiences that involve other senses, too: sounds, physical sensations, smells, tastes and other. The emotions associated with these states overpass the spectrum of the daily emotions: "They rank from ecstatic feelings, of beatitude and «peace that overcomes any understanding», to episodes of intense terror, killing rage, profound desperate feelings, tormenting guilt and other forms of unimaginable emotional sufferance. The extreme forms of these states are similar to the descriptions of the paradisiacal or Celeste worlds and of the hells described in the holly writings of the great religions of the world."<sup>1</sup>

Referring to the contemporary "spiritual crisis", Stanislav Grof presents it as a spiritual search that in a holotropic state, and finds its final destination by the experience of the Absolute, of the supreme cosmic principle. He shows that this supreme cosmic principle can be lived in two manners: one is that where all the personal borders melt or are drastically canceled, situation when the human subject merges with the Divine source, becomes one with this source and impossible to separate from it; and the second manner is that by which the subject maintains the feeling of distinct identity, undertaking the role of an exterior witness to the so-called existential *mysterium tremendum* provoked by the presence of the absolute Being.

Another perspective referring to the religious feelings is the *experience of the numinous* profoundly analyzed by Rudolf Otto in his work *The Sacred*<sup>2</sup>. The defining of the concept of *numinous* is related at Otto, to that of the *sacred*. Historically, components of rational and moral order were added to the "sacred". What understands Otto by *numinous* is exactly the primordial *sacred*, minus its moral and rational elements: "...I speak of a numinous category as a special category of interpretation and evaluation, and, as well, of a numinous state of the soul that appears when this category is used, that is, when an object is felt as numinous."<sup>3</sup>

Rudolf Otto observes that the feeling of numinous is accompanied by a series of states and attributes, perceptible exclusively through the feeling, their integral conceptualization and verbalization being excluded. *The feeling of the state of creature* is precisely the feeling that accompanies the closeness to the

<sup>&</sup>lt;sup>1</sup> Stanislav Grof, *Psihologia viitorului*. *Lecții din cercetarea modernă asupra conștiinței*, Bucharest, Editura Elena Francisc Publishing, 2005, p. 18.

<sup>&</sup>lt;sup>2</sup> Rudolf Otto, *Das Heilige – Über das Irrationale in der Idee des Göttlichen und sein Verhältnis zum Rationalen*, Gotha, Leopold Klotz Verlag, 1926; Romanian transl.: Rudolf Otto, *Sacrul*, transl. by Ioan Milea, Cluj-Napoca, Editura Dacia, 2002.

<sup>&</sup>lt;sup>3</sup> Rudolf Otto, *Sacrul*, transl. by Ioan Milea, Cluj-Napoca, Editura Dacia, 2002, p. 13.

numinous. The human subject surrounded by this feeling has the impression of its vanity, the impression that the being is but "dust and ashes" – illustrated by the author through the words of *Scripture*: "And Abraham answered and said, Behold now, I have taken upon me to speak unto the LORD, which am but dust and ashes" (*Genesis*, 18: 27). *Mysterium tremendum* (the awesome mystery) is an attribute that connotative of fear, but not one in a natural sense, but a feeling of mystery that winces, a sacred terror or a mystical spur. The element of the absolute power (*majestas*), of force, of absolute superiority as attribute of the *numinous Being*, is another characteristic described by Otto as belonging to the numinous. *Majestas* refers to the religious "humility", sensed at the contact with the *numinous Being*: "This leads, on the one hand, to the «cancelation» of the self, and on the other, to the affirmation of the unique and absolute reality of the transcendent."<sup>1</sup>

To the elements *tremendum* and *majestas* the attribute of *energy* is added an attribute which can be described as the "devouring ardor of God" or "God's mad love"<sup>2</sup>. A Father of the Church characterizes poetically the state of *tremendum*, saying: "Love is nothing than a withered rage"<sup>3</sup>. *Mysterium* is accompanied by the elements *mirabile* and *augustum*. The religious mystery, sustains Otto, the true *mirum* is the feeling of "the entirely other – *Das-Ganz-Andere*", the "Stranger" and the "Amazing": "…is what it is absolutely outside the realm of the regular things, intelligible and, thus, «familiar». He is what stays in opposition with this field and by that He fills our souls with a stunning feeling of wonder"<sup>4</sup>.

"The fascination" (*fascinans*) is another element that belongs to the *numinous*, described as that attribute both in opposition and in harmony with *tremendum*, due to which the "creature" feels the impulse to orient her being toward the *numinous* and perceives the mystery as something wonderful, as the element of a spell: "Next to what is stirring stays what is enchanting, strangely charming, what arrives often to be intensified to the delirium and dizziness, which constitutes the Dionysian aspect of the noumenon. This we shall name *fascinans*"<sup>5</sup>.

A last attribute is that of the *colossal* seen as something that is so big that overcomes the limits of human capacity of spatial perception, but, first of all, it is perceived as something stirring and "un-usual": "If the fundamental meaning of the word is understood there, it would become a quite exact expression for the numinous, with its elements of *mysterium, tremendum, majestas, augustum* and *energicum (fascinam* itself is also amongst them)."<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> *Ibidem*, p. 30.

<sup>&</sup>lt;sup>2</sup> Paul Evdokimov, *Iubirea nebună a lui Dumnezeu*, transl. by Teodor Baconsky, Bucharest, Editura Anastasia, f.a., pp. 60-63.

<sup>&</sup>lt;sup>3</sup> Rudolf Otto, *Sacrul*, transl. by Ioan Milea, Cluj-Napoca, Editura Dacia, 2002, p. 30.

<sup>&</sup>lt;sup>4</sup> *Ibidem*, p. 38.

<sup>&</sup>lt;sup>5</sup> *Ibidem*, p. 50.

<sup>&</sup>lt;sup>6</sup> *Ibidem*, p. 62.

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It is easy to notice that many of the characteristics of these feelings, as they are described, either by the researchers from the field of the neural sciences, or from those from the field of transpersonal psychology, or even derived from the analysis of the "sacred" at R. Otto, overlap, as for instance in the case of the transcendence of the limits of the self, in the altered perception of time, the perception of something that can be defined as superior or absolute Being. Also, it is easy to identify the elements of *fascinam*, *mirum* and *colosal*, as well in the sacred (revealed) writings of the universal religions<sup>1</sup> – as approaches the matter Rudolf Otto - as in the recons of the great mystics of the religions of the world<sup>2</sup>. The relation established with this "Divine source" though, comprises differentiations of perspective. While for neural theology are sufficient descriptions such as "sacred", "ineffable", without further investigation of the meaning of these terms, for the mystic approach, the feeling of identification and merging with the Divine source is nevertheless important. On the other hand, in a a far more refined and profound manner, Rudolf Otto describes the entire range of emotions associated with the closeness to the transcendent source of man, in other words, the *numinous Being*. Besides the elements of *fascinans*, which are easily identifiable in the other descriptions, too, there is the element of tremendum, the sacred terror. Something similar describes also Stanislav Grof when he speaks of the content of some of the visions in the holotropic states.

The feeling of the state of creature has some sort of affinities with the feeling of the presence of a *superior Being* in the stories of the subjects submitted to the experiment, as well as that overwhelming feeling, of the *colossal*, since the scenes unfolded during the holotropic statea overcome the capacity of the individual to comprehend entirely, while in the mystic states during the experiments, the subjects have the vision of the universe, too big to be comprehended. They are part of it, they identify with it, but they do not comprehend it. Also, in the descriptions of the experiment named "holotropic breathing" there is only the feeling of peace and inner harmony, as well with each of their selves as with the entire universe, while at the great mystics the scope of emotions is much broader. Stanislav Grof identifies and describes the extreme emotions of rage and fear, while Rudolf Otto, the fright, the sacred terror, but also the diligence, like the feeling of an extreme humility or depreciation of the very person of the subject in front of absolute power.

It is interesting to notice that what neurology names visual and additive "hallucinations", neural theology names "alteration of the sensorial perceptions", while Rudolf Otto assimilates with the elements associate *sacred*, closeness to the *numinous* that is irrational.

<sup>&</sup>lt;sup>1</sup>*Ibidem*, pp. 14-17.

<sup>&</sup>lt;sup>2</sup> Rudolf Otto, *Mistica Orientului și Mistica Occidentului*, transl. by Mihail Grădinaru and Friedrich Michael, Iași, Editura Septentrion, 1993, pp. 3-5.

While the psycho-neurological experiments were limited to the research of the transformations that take place at the chemical and physiological levels of the brain, during the mystic experience, the investigations of the neural theology and those of Rudolf Otto go further, namely toward the consequences of these experiences for the life of the individuals. It is about the transforming experiences, as well at the level of the understanding and explanation of nature and universe, but also at the level of personality, till its most profound strata. The person opens to the rediscovered spirituality within the mystic chapters of the great religions of the world.

Stanislav Grof affirms that: "In the visionary experiences of different realities or of the new perspectives on our daily reality are so convincing and powerful that the people who have lived them have no other choice but to include them into their vision of the world [...] I have never met until now an European, American or member of a technologic society who had had a profound experience of the transcendental domains and continued nevertheless to subscribe to the Western materialist scientific perspective of the world."<sup>1</sup>

At Rudolf Otto, this transformation functions in a different register. He opposes to the numinous value the non-value, which generates the feeling of the state of creature. When this state associates with the moral error, it becomes "sin". Only when it becomes sin, this mistake acquires an extreme gravity. The consciousness of sin leads to a certain kind of despair, a catastrophic state in a religious meaning that generates the will to expiate the sin. Otto makes a few considerations on the fact that the will to expiate the sin did not find in any religion a more complete and profound expression as in Christianity. According to his opinion, especially by this aspect Christianity affirms superiority of a purely religious nature<sup>2</sup>. The religious feeling is developed by the experience of the numinous. The fear of demons becomes gradually fear of Gods, only to reach then the level of fear of God. Fear becomes recollection, and the feelings that sprung diffusely and confusedly become religion. The fright becomes a sacred thrilling. The feeling of dependency on the numinous, as well as that of the beatitude owed to the communion with the numinous pass from the domain of the relative, to that of the absolute.

The analysis of the mystic feelings from the perspective of the investigation of the religious experiences of humanity with the means of neural theology imposes a few conclusions. Thus, from a theological point of view the scientific discoveries in what concerns the domain of the chasm and of the physiology of the neuronal system of the human body are less important, because in the fore front there is belief and the relation between the human and superhuman realms

<sup>&</sup>lt;sup>1</sup> Stanislav Grof, op. cit., p. 239.

<sup>&</sup>lt;sup>2</sup> Rudolf Otto, *Sacrul*, transl. by Ioan Milea, Cluj-Napoca, Editura Dacia, 2002, pp. 66-71; 181-185.

and not the material support of this relation. From the point of view of the psychomedical sciences, though, the conclusions of the studies, observations and scientific experiments enrich the knowledge of these phenomena and of their reception in a correct manner, of course, without affecting the right of the person to have such experiences.

During the last years, more and more researchers got reunited to investigate the new domain of science, *neural theology*, which studies religion and spirituality through the paradigms offered by neural biology. In 2000, the American Association of Psychology published the study *Types of anomaly experiences* where remarkable and unusual facts were analyzed, from *Near Death Experiences* to the mystic ecstasies. At the Center for the Study of Science and Religion of Columbia University was initiated a program for the investigation of the manner in which the spiritual experiences are in a strict causal relations with the strange (and repeatable) events unfolding within human brain. The elitist *Journal of Consciousness Studies* dedicated its December 2000 issue to the analysis of religious phenomena and feeling, from the "Christ visions" to the "shamanic states of the conscience". In May 2001 the book *Religion in Mind*<sup>1</sup> was published and supposed to the attention of the reader exciting subjects such as, the manner in which the religious practices act on the frontal lobes of the brain.

The psychologists and the neurologists involved in neural theology research attempt to establish the areas of the brain that are activated and that remain deactivated during experiences that seem to take place outside time and space. In this respect, the efforts differ from the rudimentary researches of the '50s and '60s, proving that certain parts of the human brain are correlated with "spiritual" states, a piece of news that enjoyed publicity at the time, although the mechanism of the correlation among the neuronal processes and the spiritual states remained outside the scientific understanding. Nevertheless, the studies from the second half of the last century did not explain why the EEG is modified or which of the areas of the brain remain outside the changes. Then there were not the nowadays real time techniques of computerized registration and imagery for brain activity. In the present-day studies the aim is to identify the cerebral neuronal connections that become overly active. In the moments ,, of grace" when the subject feels (and believes) that he met the Divine and when she or he is emotionally transposed through the intense prayer, when assists to a uplifting ritual or listens to the sacred music. Although the domain of the neural theology is entirely new, and the answers offered abound in hypotheses, a fact stands out clearly: In different cultures, along history and in diverse beliefs, the spiritual experiences are similar, so that "they suggest the existence of a common nucleus that seems to be a reflection of the fundamental structures and processes that take place in the

<sup>&</sup>lt;sup>1</sup> Jensine Andresen (ed.), *Religion in Mind: Cognitive Perspectives on Religious Belief, Ritual, and Experience*, Cambridge, Cambridge University Press, 2001.

*human brain*", as declares David Wulff, Professor of Psychology at Michigan University<sup>1</sup>.

Neural theology rose, as expected, numerous controversies and currents of opinion. The adepts of religion believe that this theory actually underlines the atheist opinions: if we can explain the religious experience simply as a phenomenon of brain, then we do not need to believe that there is God. But scientists sustain that they only attempt to understand how human brain can generate spiritual experiences.

Although neural theology is somehow in the search of God, many questions from this spiritual area remain unanswered. What is God? Is there life after death? Does soul exist? Maybe this is just a specifically human egoism to believe that we are more than we are. A new direction was drawn through some elements. Soul makes man immortal, thus fulfilling a millenary dream that is biologically impossible.

The hermeneutists of the neural theology specific scientific experiments invokes an "end of religions", as well as the apparition and the instauration of an unique, "global" or "holist", religion, but they cannot answer, eventually, to the questions concerning the relation between the experimentation of Divine and the electric and chemical processes that take place in the brain, thus, one cannot decisively affirm that *God* is a simple matter of neuronal networks and cerebral chemistry.

It seems that religion is so much more than that, a state of faith, of embracing and confessing faith, to the same extent described by sufferance and struggle, not only meditative peace, since it implies also moments of despair, the feeling that God is "hidden," that "history ends"<sup>2</sup> and the feeling of Divine wrath. Religion means as well, mercy, compassion and grace, it means helping the orphans, the elders and the poor. To say that the physical support, the brain is the source of religion equals sustaining that the physiology and the chemistry of the human body produce the constellations of ideas and – absolutely singularly – the category of the personal Absolute, that is God – which for thousands of years has proven to be impossible.

<sup>&</sup>lt;sup>1</sup> David Wulff, *Psychology of Religion: Classic and Contemporary*, 2<sup>nd</sup> edition, New York, Chichester, Brisbane, Toronto, Singapore, Weinheim, John Wiley&Sons, Inc., 1997.

<sup>&</sup>lt;sup>2</sup> Mircea Eliade, *Încercarea labirintului*, transl. by Doina Cornea, Cluj-Napoca, Editura Dacia, 1990, pp. 110-111.