



# EUROPEAN RESEARCH NETWORK

## Science – Religion Interaction in the 21<sup>st</sup> Century

### RESEARCH ACTIVITIES

We plan to focus our research activities on three main subjects. These privileged subjects encourage the interaction between Science and Theology, the analytic and non-analytic, the profane and sacred. We feel confident that our collective knowledge and scholarship would allow us to bring innovative contributions on highly important issues, and demonstrate the usefulness and effectiveness of an approach, where scientific and theological apodictic methods are jointly employed. The chosen subjects are:

#### **1. Times (Time in Science, Anthropology and Theology)**

Time is enigmatic. It is seemingly nowhere to be found, the least tangible of all and still the most basic aspect of experience. What is time? What is eternity? Can eternity enter into time? Is the origin of time to be found in the lawful functioning of Nature, as was believed by the ancient Greeks? The Greek philosophical founding fathers Plato and Aristotle set the stage for the fundamental philosophical distinction of a timeless being and a time-like becoming for the subsequent centuries. Thus they took an ontological approach to time. St. Augustine, however, approached later the problem of experiencing time from an epistemological-anthropological perspective. He associated time with features of consciousness, and by doing so he left behind the Aristotelian and Platonic way of perceiving time. Thus besides the ontological tradition regarding time in the philosophies of Plato and Aristotle (timeless being versus time-like becoming) a new tradition of anthropological-epistemological questioning of time was introduced. If consciousness changes, how does then the experience of time change? Following the pattern and the links suggested by St. Augustine, many approaches have been discussed. They range from the neoplatonic Boethian definition of time, the mystical experience of time in Meister Elkhart's writings, Descartes' exposition about time as a mode of consciousness, the Kantian a priori concept of time in his Transcendental Aesthetic, to Husserl's analysis of retention and protention.

In mythological religions, as those found in India, Mexico, Egypt, Mesopotamia and classical Greece, time is conceived in a cyclical way. In the "primitive" societies the most important acts of life are those that are repeated, referring to archetypes of a mythical past. Through sacred ceremonies, it is looked for the return to the mythical time, the abolition of the historical time and the "eternal return". The Greek ontology on the other side is based on Nature and Cosmology, searching for the "first principles", invariant in time.

Linear time is closely tied to the Jewish ontology, where God manifests Himself in history. Jewish religion breaks the cyclical time of archaic societies and "linearises the circle". The future remains open to expectations and the new. Christian religion inherited this conception of linear time. Time moves from the A of creation to the  $\Omega$  of the perfection, sustained by the divine energies. Thus, this linear notion of time was introduced from this theological background into modern society in late medieval time, most notably visible by the invention of the clock. Modernity further transformed the linear time, replacing the presence of God by the "idea of progress", in an endless rush into future.

In all major world religions, the mystic way of perceiving time in a "timeless way" is encountered. This very peculiar of time experience is documented by numerous witnesses. This special experience is often referred to as "eternity", "Experience of God", "transcending the subject-object distinction", "unity with the cosmos" and so forth.

The question of how to relate time to consciousness could be treated within neuroscience, regarding time as an emergent property of different complex states of consciousness. It is well known in brain research that in the brain one can distinguish different parts. The oldest part is the cerebellum to which belong the amygdala and the limbic system. Emotions and basic biological needs are located in this part. The mesencephalon is a more recent part of the brain to which the frontal lobe belongs. The youngest part of the brain is the neocortex. Furthermore the two parts of the brain are interconnected by the corpus callosum. Now, it is highly interesting to explore whether each of these parts of the brain is associated to a distinct way of experiencing time. What is even more scientifically interesting is whether the objective structure of time in theories about physical reality (as in the theory of relativity, cosmology, quantum mechanics, thermodynamics, and chaos theory) can be linked to the subjective experience of time in consciousness. Can the gap between objective time in Nature and subjective time in consciousness be closed in order to achieve a comprehensive understanding of time?

We need also a deep understanding of the nature of time in the different physical theories. The notions of time, originating from Physics, are not identical. Newton assumes that there is a universal time, "absolute and equal to itself". The Newtonian time is external, spatially global, unique. Relative motion, observed by us, follows the Galilean principles, but Newton suggests that true motion is directly "perceived" by God. Einstein introduces into Physics a relational approach. In Special Relativity (SR) the absolute time and the absolute space are replaced by the absolute of the speed of light  $c$ , the speed of communication being erected to a universal constant. Time in SR is not anymore unique. Different Lorentz observers have a different notion of time. In General Relativity (GR) time is directly related to the gravitational field. Time is not anymore external, but it is determined by the dynamics of the system itself. Thus overall, time in GR is not spatially global, not external, not unique. Time in Quantum Mechanics portrays a cyclical behaviour. The wave function  $\psi$  lives in a Hilbert space, and under time evolution it acquires a phase. It is expected then, that after a period  $T$  it return to its initial phase.

The most challenging problem in contemporary Physics is the unification of two conflicting theories, Quantum Mechanics and Gravity, into Quantum Gravity. It is apparent that as we move from "specific" domains to more "general" domains, time is losing its rigid specifications and determinations. Conversely, we may imagine time as an "emergent notion", when we move from a fundamental level to a less fundamental level. In this context, there is the suspicion, that Quantum Gravity would be a time-less theory.

Another challenge is the directionality of time introduced into physics in thermodynamics. The question however is, whether the directionality of time in physics is accidental or basic. In this context the relation of the directionality of time to chaos-theory, non-linear dynamics, open systems, entropy and especially information has to be clarified.

For Christian theology, our present conceptions of time are related to our fallen existence. There are different Christian concepts how to overcome this alienation with regard to time. Saint Basil, as a representative of the Orthodox tradition, considers that the division of time in past-present-future is not operative in the kingdom of God to come. Eucharist also is characterised by an eschatological dimension, where the past, present and the future of the Church are united, *hic et nunc*. In deep spiritual transformations, one may transcend time, reaching a "timeless" situation. The universal experience of time in mysticism witnesses again the same feature of "timeless time". Notice also that from psychoanalysis, we know that in the subconscious section of the human being, there is no time-ordering. The mystical and eschatological tradition is closely linked also to the Schleiermacher's or Kierkegaard's theology. Contrasting different metaphysical concepts of time, such as in process philosophy or in Peirce's evolutionary metaphysics, and compared to different concepts of time in Patristic theology or western eschatological approaches, may stimulate the discussion how to understand time in modern theology.

## 2. Psychoanalysis and Theology:

### Psychopathology and the absence or distorted presence of Divine

Psychoanalysis, being the last outcome of an overwhelming rational approach to nature and the human being, goes beyond positivist rationality. The object of the subjective thought is the human being itself and the aim of this process is the reconstruction of a "new anthropos". But precisely, the "new anthropos" is the focal point of Christian theology. It is not accidental either, that both Psychoanalysis and Religion are centred on the figure of Father, or Father-God. It is of paramount importance to study the unity (disunity) of the body-mind-soul by referring to the two distinct branches of knowledge.

It is known that psychoanalysis constitutes mainly, directly or indirectly, a psycho-therapeutic practice. Its fundamental aim is not the search for a painless situation, the conquest of an unreal happiness, but an approach towards a revelation of the sense of life, full of joy on one hand and on the other pain and muddled feelings. It is an ascesis, a practice of the search for the balance between these two poles. Psychoanalysis helps a man to free himself of stagnant situations and narrow ways, that cause pressure and overwhelm him beyond what his emotional and sentimental world can bear and at the same time limit his noetic faculty and willingness. Psychoanalysis is characterised by a great number of theoretical schools and trends, each of which, in its own way, contributes to the common aim, even if it does not attain at completely. However in each of these schools, we can distinguish the presence of certain characteristic aspects, common to all. These aspects, these phases of psychotherapy, are: confession, clarification, pedagogy, transformation.

In its own way, philosophy, when it does not limit itself to a certain knowledge of generalities, is clearly also an ascesis, a training and practice of living. An initiation into the cycle of life and all that life contains: individuality and collectivity, joy and pain, feelings and thoughts, birth and death. Not separately from each other but in a close inseparable relationship between them, creating "their best secret harmony". And this was, among others, the aim of the ancient schools of wisdom, i.e. what Plato called "a therapy of the soul". A training of attachment to the present, a detachment from the passions and desires. As Epicurus said, the words of a philosopher are vain if they do not liberate the soul from passions, if they do not lead to eudaemonia. Therefore philosophy, an ascetism in life and death, is oriented towards rendering the person responsible, through a continuous transformation of his feelings and thoughts.

A man has an instinctive carnal pole and a spiritual one. Or, as the Fathers of the Church state, a pole of origin and a pole of destination. Between them a soul moves incessantly from one pole to the other. The relationship of ego with one's spiritual pole, that is the religious dimension of the person, is pre-eminently the place of Theology. The same themes, which come up so often in psycho-analysis as in philosophy, like the search of a sense of existence, the relationship between a person and the others, with oneself and with the world, birth and passing by, the relationship with the Creator and creation, were studied deeply by all religions. And it is this ancient spiritual function of man that managed to give the most convincing answers to the above-mentioned themes by organising human life in a mystical way. We all know that we are not only carnal offsprings, we do not only have a terrestrial origin, we are not only part of a family history, but at the same time we are spiritual brethren, and, as Plato said, we are beings with a heavenly origin and our destination is our heavenly Father, as incorporated in many hymns. Theology as a mystery, as an initiation to God's Word and consequently to the mystery of a man, is a drive, a sort of "instinct", repelled from the hubris of ego, from arrogance of a hyper-willing being. And it is this hubris, this arrogance, which must be bent, so that the passage to the Logos and Spirit of God remains open. During our times, the existential anguish, the uncertainty of our technological age, the separation of the "products" of science from any human intention and rationality, bring back the ancient teaching, where Creator and Creation, created and uncreated, are held together. It is a vision in which the human mind, as the ultimate consciousness of the Creation, stands responsible for the future of successive generations and of all creatures. It is a hypostatic concept, where ontology, logic, and ethics are inseparably interwoven with each other in a oneness. To reach this noble aim is necessary to establish a dialogue between the main currents of human intellect, science, philosophy, psychoanalysis and theology.

It is evident that both psychoanalysis and theology refer to the human being in its totality (body, spirit and soul), to the full network of connections to the inner and outer world. There is the subsequent danger of confusion between these two distinct forms of human thought. But already Saint Gregory Palamas indicated the difference between the philosophy related to cosmos (κατά κόσμον) and the one related to the divine, the latter providing the ontological basis for all beings, visible and invisible. The proposed dialogue will take due consideration of these important differences.

Psychic pain and anguish was always there. We plan to study and analyse the present situation, where the human being presents a hyper-willing ego, and most important psychopathologies result from the absence or distorted presence of the divine in the thoughts and life of man. We will study and analyse notably the following topics:

- i) New forms of psychopathology and the distorted presence of divine
- ii) Social or religious fanaticism and the theological ramifications

Our aim is to advance a holistic analysis, where the human being is not considered as a closed, autonomous existence, but as a relational being, built from inter-personal relationships, partial reflection of the Divine Person.

### **3. The human person in the 21st century**

Current bio-medical research presents enormous challenges to anthropology. The birth, the life and the death of a human being are under drastic modifications. We refer notably to:

1. the embryonic stem cell research for genetic therapy or cloning
2. the active and passive euthanasia
3. the merging of electronic devices with biological substrates, with the possibility of emergence of new qualia

Christian theology, in addressing these issues, starts from the biblical perspective, where humanity is rooted in nature, sharing the finitude and death of all living things. St. Augustine presented the concept of the human person endowed with a free will, mirroring the trinitarian structure of the divine person. Along similar lines the Greek Fathers of the Church developed a relational understanding of personhood. Next to the biological existence, it was attached the ecclesial existence, where the ecclesial existence of man is manifested in the communion with others, love (loving and being loved), freedom.

The bio-medical shake-ups should then be analyzed within a context which takes due consideration of the psychosomatic unity of the human being, of the human presence as imago dei. What is needed is an axiological reference, to provide guidance for a symbiosis of bio-technology and nature. Furthermore one should recognize the multilevel character of the human person and the necessity of developing all its "modes of existence".

### **Research Procedure**

For each research subject, a workshop will be convened. Each participant to a workshop will submit prior to the workshop his (her) research contribution. Thus during the workshop, most of the time will be allocated to stimulating discussions, trans-disciplinary interactions, comparison and contrast of different ideas. The three workshops will culminate into an international conference, where the main results will be presented.