

Paper Title: Complementarity of Faith and Science

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This paper was prepared for “Continuity + Change: Perspective on Science and Religion,” June 3-7, 2006, in Philadelphia, PA, USA, a program of the Metanexus Institute ([www.metanexus.net](http://www.metanexus.net)).

Abstract:

Religion and science are constitutive elements of culture. Science, with its experiments and logic, tries to understand the order or structure of the universe. Religion, with its theological inspiration and reflection, tries to understand the purpose or meaning of the universe. Today, science is very often thought to be an exhaustive and adequate representation of the world, a true knowledge ruled by a criterion of absolute truth. Scientific knowledge influences other knowledge and the very “roots of culture”. How the science is done largely depends on the culture in which they are practiced, but, in the same time, science is interpreting and transforming reality by changing these “roots of culture”. On the other side, faith helps culture with regards to questions about revival of a life worthy of man. At the same time, culture also helps faith to be “leaven of salvation”. So it is complementarity also between faith and culture. These two are cross-related.

Modern society expects that faith and science will work together to improve civilization. Therefore, science and faith must work together for the promotion of true culture, because ultimately the truth they both pursue is a “who” and not a “what”.

Without complementary cooperation between science and faith, faith is in constant danger that its efforts, because of eventual one-sided religious understandings, are wrongly directed – towards “spirit” but to the detriment of body. Similarly, science is in constant danger that its efforts, because of eventual one-sided scientific understanding, are also wrongly directed – towards “body” but to the detriment of spirit.

The most important topic in this work will be: faith as protection against dehumanization of science and science as protection against mystifications in faith.

Other elaborated topics are:

- Real meaning regarding complementarity and unity between science and faith;
- Culture in the full sense of term;
- The challenge presented to culture by science and technology (as one of the most dramatic contemporary elements of human culture);
- Science alone is unable to give a complete answer to the question of meaning;
- A common goal to be sought by the faith and science community.

I want to point out that it is of highest importance for the well-being of humanity to promote cooperation between science and theology (religion).

#### Author Biography:

Kresimir Cerovac is an electrical engineer and works as Head of the energy department in the Ministry of Economy, Labour and Entrepreneurship of the Government of the Republic of Croatia. Born in Zagreb, his education includes grammar school (1956 – 1961), Faculty of electricity (B.Sc.) (1961 – 1966) and a Master of Science degree (M. Sc.) (1979). He is author and editor of 81 radio broadcasts on Croatian Catholic Radio about the relationship between religion and science. He is also author of *Concordance between Faith and Science* and author of more than 120 articles in Croatian newspaper on the subject religion (theology) and science. He is an active public speaker on the mentioned themes. He received the ESSSAT (European Society for Study of Science and Theology) Communications Prize for year 2006.

Paper text:

## COMPLEMENTARITY OF FAITH AND SCIENCE

### Opening reflections

As the motto for this paper one can use John Paul the second's statement: "*Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into wider world, a world in which both can flourish*<sup>1</sup>."

Religion and science<sup>2</sup> are constitutive elements of culture<sup>3</sup>. Science for its part, instead of being in competition with culture, is actually a fundamental and now indispensable element of all culture which is ordered to the good of the whole person and every person<sup>4</sup>. In the strict sense term *culture* indicates the *whole of the more elevated productions of the human spirit*. In a broad sense it indicates the *whole of the vital manifestations of peoples and groups*. Scientific-technical lessons have brought us into a situation where the man lost the sense of wisdom, with threats of self-destructions, after they have created the state of existential disorientation. We live in a world dominated by scientific images, by scientific information constantly evolving and overwhelming us, and by the inevitable need to follow science because of its technical applications, which are a part of our ordinary life. Science is today very often thought to be an exhaustive and adequate representation of the world, a true knowledge and very "roots of culture". A fascinating situation that has arisen with our growing knowledge about the natural world is the almost hypnotic hold that science has on us.

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<sup>1</sup> Pope John Paul II, *Letter to the reverend George V. Coyne, SJ*, Director of Vatican Observatory, 1 June 1988)

<sup>2</sup> Science in this work means *natural science*.

<sup>3</sup> *The word „culture“ in its general sense indicates everything whereby man develops and perfects his many bodily and spiritual qualities; he strives by his knowledge and his labour, to bring the world itself under his control. He renders social life more human both in the family and the civic community, through improvement of customs and institutions. Throughout the course of time he expresses, communicates and conserves in works, great spiritual experiences and desires that they might be of advantage to the progress of many, even of the whole human family, „Gaudium et Spes“ (53), document of the Second Vatican Council*

<sup>4</sup> *Science and religion can renew culture*, Address of pope John Paul II to participants in a Symposium sponsored by the Pontifical Academy of Sciences and the Pontifical Council for Culture, October 4, 1991.

How the science is done largely depends on the culture in which it is practised, but, in same time, it is interpreting and transforming reality by changing these “roots of culture”. The need for a true *scientific culture* is very urgent because of actual processes of “complexification” and “globalization” that involve all cultures. A true scientific culture would prevent the followers of scientism (scientific materialism) from persisting in diffusing misunderstandings and inadequate images of science. Scientific culture provokes positive effects, new values and possibilities of new achievements, but, also, negative ones, such as ethical and cultural decline. Science conditions conceptually, socially and economically all cultures and interprets and transforms reality always giving rise to new problems. In this way, it changes the “roots of culture”, that is, its criteria of judgement, values, interests, lines of thought, beliefs, models of life, etc.

Nevertheless, it is necessary to maintain the principle of “human dignity” against what some thinker denominate as *dark sides of progress*<sup>5</sup>, *demonism of techniques*<sup>6</sup>, *progress against harmony*<sup>7</sup>, *disease of civilisation*<sup>8</sup>, etc. The disintegrations carried out by scientific culture derived from many factors but the most important are the denial of the unifying role previously played by ethics and religion, the refusal of the metaphysical discourse and the separation between the *systems of representation* and *systems of meanings and values*. In short: one can say that scientific culture disrupted connections of the present with the past and future. Atheist culture has used so-called popularisation of science to endorse so much cultural untruth. It has never spoken of Galilean truth nor has it ever talked about how science came into being. Instead, through its propaganda campaigns, it has spread the most serious of cultural falsehoods, which would have *Science and faith as enemies*. And the pillar underlying this lie would have us believe that science cannot be a source of values. Atheist culture also has acted as spokesman of ideas, such as scientific materialism.

Modern society expects that faith and science work together to improve civilization<sup>9</sup>. They can complete each other in a respectful dialogue and integrate themselves to elaborate a new culture. Without ***complementary cooperation*** between science and faith, faith is in constant danger that its efforts, because of eventual one-sided religious understanding, directs wrong – towards “spirit” but to detriment of body and science is in constant danger that its efforts, because of eventual one-sided scientific understanding, directs also wrong – towards “body” but to the detriment of spirit.

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<sup>5</sup> Fritjof Capra, *Wendezeit*, Scherz Verlag, München-Wien, 1983.

<sup>6</sup> Karl Jaspers, *Von Ursprung und Ziel der Geschichte*, Piper & Co. Verlag, München, 1950.

<sup>7</sup> Dieter Emeis, *Wegzeichen des Glaubens*, Herder Verlag, Freiburg, 1972.

<sup>8</sup> Paul Overhage, *Experiment Menschheit*, Josef Knecht Verlag, Frankfurt, 1968

<sup>9</sup> *It is scientists and theologians that need to be brought together, not merely science and theology*, E.L. Mascall, *Christian Theology and Natural Science*, Longmans, London 1956,

The dialogue between science and theology about human reality is exceptionally important because it enables to man to discover again his uniquely acquiring clear conscience about his twofold dimension, “horizontal” and “vertical”.

### **Faith as protection against dehumanisation of science<sup>10</sup>**

Faith in itself, and first of all, Christian faith, with its teaching about equality of all human beings as the child of common Heavenly Father, represents powerful brake against various forms regarding misuse of scientific progress at the expense of man. If the man expels, indeed, noble God of faith from his heart, he puts, in principle, on the God’s place biblical “golden calf”, this once, maybe, scientifically improved.

Faith through its essential humanistic orientation struggles to canalize scientific development in order to prevent the science to become destroyer of human dignity making the man as “object” between others objects. In the soul of today’s highly technicalised man exists noticeable disunion. Science gives him opportunity for wealth and comfort and extends his life. However, the man of the present age remains further marked with insuppressible anxiousness of his heart, because, as before now, he always aspire for “new” and “still unreached”. *We were never so rich as today, but also we never were so greedy as today. We never had so many suits as today; so undressed and so naked we never were as today. We never were so sated as today, but also we never were so insatiable as today. So nice houses we never had as today, but in the same time we were never so much without home. So secured we were never as today, but we were never so insecure as today. We never had so much time as today, but we never were so bored as today<sup>11</sup>.*

Theology seeks to provide the understanding of the Word of God in the light of faith. It seeks to explain the internal coherence of this Word and to clarify the different implications it entails. In so doing theology naturally encounters other sources of knowledge and takes into account their contents. Although theologians “descent” from Biblical Revelation towards created things, they cannot ignore the need for an “ascent”, that is, from philosophical and scientific knowledge towards the knowledge provided by God's Word, in order to achieve a better understanding of it.

From the biblical viewpoint, faith and science are interlinked complementing each other. Artificial or forced severance of this fundamental and very important correlation can be very dangerous, insofar as the science, without corresponding with faith imbued and philanthropic mentality, offers to man the possibility for different forms of inhumanity and deposition of pathological egoism (We are god(s)!). Without ennobled religious component science spontaneous, it seems, is going in behalf of creation pragmatical, one-dimensional functionalistic mentality. Such mentality,

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<sup>10</sup> *Metaphysics, centered on the truth and dignity of the person, renders the physical-natural sciences significant for human beings and cultures*, John Paul II, in *Fides et ratio*, (80)

<sup>11</sup> *Glaube und Leben*, Mainz, July 1977

consider many believing and non-believing oriented thinkers, is big danger for today's humankind. In its ontological meaning the structure of science is not directed to "the ultimate reasons and meaning" of reality: science describes calculated "regularity" and it is not interested for ontological verity of its thesis. From the viewpoint of self-contained science the things in the world are only phenomenon, appearances, which are none comprehensive ontological actualities, none things for oneself.

While science has established itself, together with technology, as way of increasing people's knowledge, power and well-being, its responsible use demands ethical criteria which it alone cannot provide. The ethical dimension of scientific questions often asked by scientists themselves reveals the need for a dialogue between science and morality. This quest for truth, which transcends the experience of me senses, offers new possibilities for a pastoral approach to culture which aims to proclaim the Gospel in scientific circles.

Science does not answer on question: Who is man? Exclusively, connected with this every experiment with human beings, as with rabbits, is permitted. "Functionality" justifies all means, and consistent with this, permits all forms of standardization, calculation and manipulation with man. Hear is man, in principle, becoming *one between others technically-scientifically tasks of production*, as observes sociologist H. Schelsky<sup>12</sup>. For the science man is *compound of fats and proteins*<sup>13</sup>.

The scientific culture reveals the greed and selfishness that is in the human heart in the way we use science, in kind of technology we produce and the way this is actually used in the world. Science places our moral frailty before our eyes. It represents our most valiant effort yet to know our world and to use this knowledge to improve our lives. It has given us unimaginable power over nature and society. Yet, it has not enabled us to overcome our own moral depravity and the brokenness of society but has served to make these even more evident.

The scientific progress many a time during the history distinguished yourself, as today, blind for the essence of matter and for valuable things and with this it expressed yourself as *progress of inhumanity*<sup>14</sup>. Indestructibility of hope, founded on the faith in absolute ontological God's fullness used to be strengthen by means of

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<sup>12</sup> H. Staudinger, M. Horkheimer, *Humanität und Religion, Briefwechsel und Gaspräche*, Verlag Naumann, Würzburg, 1974.

<sup>13</sup> ***The fragmentation of knowledge***, caused by specialization in each science and by dividing up their technical applications, often makes it impossible to see the human being in his ontological unity and to understand the harmonious complexity of his faculties. In fact, there is a real risk of seeing science and culture growing apart, even to the point of disregarding each other. But both of them are at the integral service of the human person.- Pope John Paul II in address to the participants in a Symposium sponsored by the Pontifical Academy of Sciences and Pontifical Council for Culture, October 4, 1991.

<sup>14</sup> H. Staudinger, M. Horkheimer, *Humanität und Religion, Briefwechsel und Gaspräche*, Verlag Naumann, Würzburg, 1974.

science and its discoveries, while the very science used to be protected by means of faith and its grafting into man from dehumanized deviations and from self admiration.

Christianity must support scientific progress in advancement of living standard, but it must prevent the spreading of inhuman conception about techno scientific civilisation. Functional structuralism, which destroys personality, must be subjected to the freedom of person. It is necessary to oppose inhuman measures against those who are functionally less worth, for instance, against arbitrary disposal of unborn life and against making experiments with euthanasia and eugenic. To the modern scientific opinion Christian must to add, as the certain correction, *the old ethics of love for his neighbour*, as emphasizes physicist Carl F. Weizsäcker<sup>15</sup>. The ethics of Christian love one must to bring in all premises of the building of techno scientific world. Otherwise scientific progress can pass into *progress of inhumanity*.

Theology can address the questions to science in order to prevent its detriment of autonomy as the outcome of its gradual subordination to economic, political and military power. It can help science through moral philosophy and can provide principles for deliberation about selections in truthful respect about man and biosphere. Here the philosophical intermediation becomes the place of concrete dialog; it is the environment where science finds opportunity not to be closed in itself.

*In the widest scientific knowledge about viewable world one can find neither serenity nor peace. They do not satisfy our thirst for mystery and wish for Infinite, but reassure us about inadequacy of every cognitive means for acquirement of spiritual peace*<sup>16</sup>.

### **Science as protection against mystifications in faith**

Theology finds scientific knowledge to be both – a resource and a challenge. Science is a resource to religion in that it supplies insights and concepts that help religions faith to understand itself in richer and more vital ways. Theology cannot be restricted to the relationship of God to humanity. Religion is not the scrupulous observance of a set moral or behavioural code; that is religiosity. Hence, the science broadens our knowledge of God's creation and provides an understanding of the arena within which incarnation and resurrection take place. This enlargement of the scope of theology to include all space and time provides the framework for specifying just how God can be an object of inquiry and how knowledge of God can be objective. For example: Scientific concepts of the genetic and cultural components of human nature add immeasurably to our understanding of what it means that we are created from the

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<sup>15</sup> The same as above.

<sup>16</sup> Francesco Severi, *Dalla Scienza alla fede*, Assisi, 1962.

dust of the earth and that God has created us with special gifts and responsibilities within the natural world. In sum: science can help religion make better sense of itself.

In the course of history many mystifications and different forms of superstition have snaked into Christian faith. The best example for this is “mass madness” persecution of witches when incomprehensible things have appeared. In such times science has purified the faith. This unpleasant historical situation in the context of Christianity shows how the neglect of progress in scientific cognitions can turn over the contents of authentic faith into superstition or paganism. The data and the methods of science will help theology probe the mysteries of faith more deeply. The truth of faith is much richer than any theology can adequately explain.

### **Final reflections**

The third millennium has need of the fundamental values of our culture, which is based on Love, to create a new society where Brotherhood, Charity, forgiveness and Friendship among people triumph. This statement of John Paul II forms the foundation stone on which the whole of humanity, in alliance between science and faith, can build the hope to defeat the danger of an environmental holocaust. Scientific culture and faith must work in synergy, not in antithesis. As they understand each more fully, they will more fully overlap. There is space for a harmonious conception of truth.

But it is necessary to emphasize that we should avoid the attitude which sees the partnership dialog of science and theology as a large classroom, where theology is only a student, and science constantly teach. It is time for theology to actively play its characteristic role of a mediator of wisdom. Christian proclamation and theology first mediate the idea of Wisdom as the essential component of the dynamic act of divine creation and maintenance of the world. *There is plenty of knowledge, but there is not enough wisdom!* By starting a desired partnership dialogue between science and theology, one should, well, keep in mind that true and real wisdom comes from God, represented as foundation and source of all goodness and truth<sup>17</sup>. Our era needs such wisdom more than bygone ages if the scientific discoveries made by man are to be further humanised<sup>18</sup>. Therefore, without the wisdom neither man nor society or even the world can be more humane.

We are reminded that science (and technology!), while holding the potential for many of the solutions to our development problems do not hold the key to our salvation. They do not even, in and of themselves, hold the definitive solutions to these problems. Neither science nor technology can or should tell us who the human being

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<sup>17</sup> Second Vatican Council, Dogmatic Constitution *Dei Verbum*, (2)

<sup>18</sup> Second Vatican Council, Pastoral Constitution *Gaudium et Spes*, (15)

ultimately is. For this one must turn to different authority. The relationship between science and faith can be dynamic and healthy, because truth is a dynamic relationship.