

# KENOSIS

## Towards a New Theology of Science

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**ABSTRACT:** The «theology of science» which, in our opinion, brings us the image of the universe, life and man in contemporary science has its fundamental axis on the concept of «epistemological kenosis». This means that God, in the event that he is real and exists, has created an autonomous world, whose ultimate truth is enigmatic. The world can be explained without God in «atheism»; but it is also possible to construct a «theist» explanation. In other words, the «possible God» has created a world with an ambivalent, enigmatic structure, which does not «impose» His own divine presence on rational human knowledge. Therefore, God has not «imposed» His presence on human reason, that is to say, He has chosen to conceal Himself in creation, an «emptiness» or «nothingness» (kenosis) of His divine presence. The divine kenosis (emptiness, nothingness or divine impotence as regards the world) is epistemological. In our opinion, the idea of God from science does not permit us to speak of an «ontological kenosis». The God that science can speak of must be an omnipotent creator and the foundation of being. He is transcendent and always maintains control of the ontology of the universe. This kenosis of God in creation is the basis of human freedom (man must be religious freely, rationally but not necessarily imposed). The drama of freedom also explains the drama of suffering in the plan of salvation of God. The two grand metaphysical questions of human life in this enigmatic world are the question on the «concealed God» (a real God who has not wanted to impose Himself) and the question on the «Liberating God» (due to the liberating will of this concealed God in relation to the meta-historical future of humanity). From these two metaphysical and existential questions, man makes his hermeneutics of Christianity. At this point the significance of the Mystery of Christ appears and this responds to the question on divine concealment (the kenosis on the Cross) and the question on future liberation (the Resurrection which anticipates the future of a liberated meta-historical humanity). This «theology of science», with the axis on the «theology of kenosis», in our opinion, could be an appropriate ecumenical meeting point for the future theology of Christian churches and for inter-religious dialogue.

**KEY WORDS:** hermeneutics, science, physical science, theology of science, kenosis, Christianity, process, cosmic autonomy.

### *Kénosis: Hacia una nueva teología de la ciencia*

**RESUMEN:** La «teología de la ciencia» a que, en nuestra opinión, nos lleva la imagen del universo, de la vida y el hombre en la ciencia contemporánea tiene en el concepto de «kénosis epistemológica» su eje fundamental. Esto quiere decir que Dios, en el caso de que sea real y existente, ha creado un mundo autónomo, cuya verdad última es enigmática. El mundo puede ser explicado sin Dios en el «ateísmo»; pero también es posible construir una explicación «teísta». En otras palabras, el «posible Dios» ha creado un mundo con una estructura ambivalente, enigmática, que no «impone» ante el conocimiento racional humano su propia presencia divina. Dios, por tanto, no ha «impuesto» su presencia ante la razón humana: es decir, ha escogido en la creación la vía de su ocultamiento, del «vaciamiento» o «anonadamiento» (kénosis) de su presencia divina. La kénosis divina (vaciamiento, anonadamiento o impotencia divina ante el mundo) es, pues, epistemológica. En nuestra opinión, la idea de Dios desde la ciencia no permite hablar de una «kénosis ontológica». El Dios del que es posible hablar desde la ciencia debe ser creador omnipotente y fundamento del ser. Es trascendente y mantiene siempre su control sobre la ontología del universo. Esta kénosis de Dios en la creación es el fundamento de la libertad humana (el hombre debe ser religioso de forma libre, racional pero no impuesta necesariamente). El drama de la libertad, además, explica el drama del sufrimiento en el plan salvador de Dios. Las dos grandes preguntas metafísicas de la vida humana ante este mundo enigmático son la pregunta por el

«Dios oculto» (por un Dios real que no ha querido imponerse) y la pregunta por el «Dios liberador» (por la voluntad liberadora de ese Dios oculto en relación al futuro metahistórico de la humanidad). Desde estas dos preguntas metafísicas, y existenciales, hace el hombre su hermenéutica del cristianismo. Aparece entonces la significación del Misterio de Cristo que responde a la pregunta por el ocultamiento divino (la kénosis en la Cruz) y la pregunta por la liberación futura (la Resurrección que anticipa el futuro de una humanidad metahistórica liberada). Esta «teología de la ciencia», con el eje en la «teología de la kénosis», podría ser, en nuestra opinión, un punto de encuentro ecuménico apropiado tanto para la teología futura de las iglesias cristianas como para el diálogo inter-religioso.

PALABRAS CLAVE: hermenéutica, ciencia, ciencia física, teología de la ciencia, kénosis, cristianismo, proceso, autonomía cósmica.

The fundamental thesis which we defend in this article (the same thesis as we have defended for many years: Monserrat, 1973) is that the God in whom it is possible to believe from current scientific culture is a kenotic God. A creator God and the foundation of being who does not impose his presence, but creates an autonomous world in which man is, as widely expressed by Philip Heffner, «created co-creator», that is to say, free personal and master of history.

Important intellectual events have taken place since 1973 when I began to defend the «theology of kenosis» alone and in a close hostile environment, which has continued to exist in my proximate traditional Catholic theology which is badly understood (in my opinion). However, little by little, the «theology of kenosis», interpreted from several focuses and approaches, has grown in importance due to the contribution of several authors and schools in America and in Europe.

Firstly there was the philosophical and theological assimilation of Whitehead's thought in America until this gave rise to the philosophy and theology of the process with authors such as Hartshorne, Vanstone, Cobb, Griffin and others. Moreover, at the end of the 70s the thought of Moltmann went more deeply into the *theologia crucis*. Little by little Barbour began to stand out, and just like the other grand masters of science-religious thought, at the end of the XX century, such as Peacocke and Polkinghorne, contributed enriching ideas to the theology of kenosis. The proposal of George Ellis, formulated in the «Christian anthropic principle» in the 90s, was a contribution. The focus of several authors on the theology of kenosis was synthesised in the recent collection, edited by Polkinghorne, *The Work of Love* (2002).

The theology of kenosis is an essential part of the deepest Christian theological tradition, from the patristic to the mystic theology. However, the historical occasion to understand that the real God is a *Deus absconditus*, a concealed God in silence in an autonomous cosmos, has been the image of the world in modern science. The authors cited from Whitehead mark the chapters of the modern discovery that science leads to an understanding that «Christian theology» is a «theology of kenosis». At the present time, the important current of international thought on science-religion relations undoubtedly moves in the direction of the theology of kenosis.

I have the satisfaction that the ideas that I had had an intuition of in the 70s, as a young man, and published for the first time consistently and systematically in 1973, have progressed in the second half of the XX century. These are fundamental coincidences in a unitary orientation thought which is compatible with discrepancies on specific points. My personal focus on the theology of kenosis, as I said above, can be classified as «epistemological kenosis» and I disagree with some of the interpretations of the philosophy and theology of the process<sup>1</sup>.

*The logic we are led to by the «epistemological kenosis».* My point of view concerns certain consequent facts and interpretations, whose logic and internal relation is very difficult to deny in our opinion.

1) The first fact illuminated by current science is that man is a being produced in the monist evolution of the universe. Its «truth» is the «truth» of the universe. The human reason seeks to know the sufficiency of the universe, or, the sufficient grounds of its reality and of its being. In an autonomous universe, the only possibility to speak of God with meaning will be to understand Him as the first transcendent basis and creator of the sufficiency of the universe.

2) The second fact is that the universe is, above all, enigmatic. The sociological evidence shows us those who construct an atheist (or agnostic) interpretation; but also those who construct a theist interpretation. Is there an alternative? Is the universe perhaps not «enigmatic»? Can anyone achieve absolute certainties? Are «dogmatic» atheism or theism possible? Everything seems to indicate that these are not possible. In fact, this would not be compatible with the epistemology of our critical, illustrated and tolerant culture.

3) Consequently, man understands that the «possible God» does not impose Himself (an atheist universe is possible). Because of this, God is concealed and in silence and makes freedom possible. Moreover, the two essential metaphysical questions are the question of the «hidden God» and the question of the «liberating God».

4) Consequently, all possible human religiosity (the acceptance of a transcendent power which «liberates history») always supposes accepting God *despite his farness and silence*, despite the suffering, the divine «emptiness» or «nothingness» (kenosis). Every religion supposes believing in the «meaning of

<sup>1</sup> I refer to: MONSERRAT, JAVIER, *Existencia, Mundanidad, Cristianismo. Introducción filosófico-antropológica a la Teología Fundamental*, Consejo Superior de Investigaciones Científicas, Madrid 1974. Many years ago I defended the ideas that I explained for the first time in this intensive work. Although many years have already passed, I still consider the ideas correct. Since then, I have explained my opinions in various writings. I would like to refer to at least three articles published in *Pensamiento*. Aside from explaining the position of other authors in these articles, I also take a position vis-a-vis theirs from the perspective of the theology of kenosis within the framework of a scientific and religious reflection. MONSERRAT, J., «Ciencia, filosofía del proceso y Dios en Ian G. Barbour», in *Pensamiento*, 60, 226 (2004) 33-66; MONSERRAT, J., «Ciencia, bioquímica y panenteísmo en Arthur Peacocke», in *Pensamiento*, 61, 229 (2005) 59-76; MONSERRAT, J., «John Polkinghorne, ciencia y religión desde la física teórica», in *Pensamiento*, 61, 231 (2005) 363-393.

the divine concealment». A «meaning» which explains the divine action as the full creation of human freedom in history.

5) From this «human condition» open to the two big questions on the enigma of the universe, the human reason makes Christianity a hermeneutic, which is presented with an impressive logic. The Mystery of Christ is the response of the Divinity to the incognito of the hidden God (the cross) and the incognito of the liberating God (the Resurrection).

These considerations are the basis of a theology of kenosis founded on the belief that the real God has assumed an «epistemological kenosis» in creation. This is what we argue in this article starting in more detail from the image of the universe from physical science.

## 1. PHYSICAL SCIENCE AND THEOLOGY

Studying the relationship of physical science with theology entails first explaining what we understand by physical science and by theology. Once both concepts are clarified, we will be in a condition to address another necessary clarification for these reflections: what do we intend to do and not intend to do by arguing about a certain way of understanding the theology of science?

*Physical science.* For many centuries, physics is the paradigmatic science for two reasons. Firstly because it knows the universe from the most basic and fundamental: matter and the results of its evolution until it constitutes the physical universe. Thus, all the sciences, including the biological and human sciences, depend on the results of physics. Secondly, because physics has produced basic knowledge of the universe and of applied technology, with the greatest precision. It is in physics that the most rigorous demands of the scientific method are complied with. Thus, the history of science from the Renaissance shows how all the sciences have attempted to approximate the model of physics.

We now consider the general epistemological framework (or theory of science) commonly accepted by nearly everyone as regards the *intentions of knowledge* of science (and of sciences in special epistemologies), and as regards the establishment of the regulation *methods of knowledge* in order to construct the class of knowledge we call «science».

Therefore, as physics is scientific knowledge of the matter and energy which produce the birth and dynamic evolution of the universe, consequently, the scientific idea of physical universe determines our knowledge of the biological universe and of our human universe. Physics is in the monist root of holistic knowledge of the universe: of matter, of life, of man and of his integration into the system-of-the-real-as-a-whole which we call universe (world or cosmos).

Consequently, science, from physics, constructs an inter-disciplinary knowledge of matter, life and man. This knowledge is what we call the *image of the*

*universe in science.* This is the rationally most reliable image and, undoubtedly, the one with most social prestige. However, we know that science does not take in everything and that there are other methods of knowing, which are also legitimate and perhaps more important from existential points of view (for example, philosophy). As we will see, our reflection will focus precisely on studying how this image of the universe in science affects philosophy and theology.

*Theology.* This is the organised and, in a certain way, rational explanation of the idea of God and of the beliefs of a determined religion. Therefore, there are many theologies, as many as there are religions; for example, the Hindu or Buddhist. However, when we speak of theology here, we refer to a precise theology: Christian theology, and more specifically, Catholic theology. Thus, Christian theology is a rational explanation of the content of Christian beliefs, and was conceived as such since the earliest tradition, the patristic. Therefore, before analysing the science-theology relationship, we must make some brief, but necessary, specifications regarding theology.

Christian theology starts from the belief (its fundamental faith) that God has been revealed in the tradition of Israel and definitively in the mystery of Christ (His death and resurrection). This belief is not based only on a certain rational argumentation, or «natural meaning», which would make faith humanly assumable. Furthermore, belief depends on the interior, supernatural or mystic testimony (Grace) which drives man to faith in revelation. Christian theology, therefore, endeavours to know and understand the content and meaning of revelation in a rationally organised way (to the extent that this is possible), or what God has expressed in this revelation.

There is a very important characteristic of Christian theology. It is not always understood and, thus, our understanding of Christianity is frequently distorted. This characteristic supposes faith in revelation, and, thus, the will of God to make it effectively present in all of history. It is deduced that this belief that the Providence of God must care that the Christian Community transmit revelation to history in a proper manner.

This has consequences. Firstly, the belief in the *inspiration* of Scripture because this contains the revelation given in the history of Israel and in the figure of Christ. Secondly, the belief in the *assistance* to the Church in its interpretation throughout the centuries as, without this assistance, revelation could have been dissolved essentially. The Church of the first centuries little by little became aware that it «was assisted». With this authority, the Church established, for example, the Canon of revealed books of the Old and New Testaments, by choosing from among the old and new writings of Israel.

How is this assistance given to the Church in order to implement the effective transmission of revelation to history? Throughout the centuries, theology has built up a complex reflection which relates and studies aspects such as councils, theology, the dogmatic definition, the ordinary and extraordinary magisterium, the magisterium of the Popes and Bishops, the faith of the people of God, etc. In fact, theology believes that the Church is assisted in order to show

the Word of God, revelation, in history, however, this does not mean that any proposition stated in the Church is an «absolute truth».

We must understand that Christian theology soon began to distinguish between two differentiable dimensions. Firstly, the grand content of revelation (God, his trinity nature, the incarnation, soteriology, etc.). Secondly, the explanation of this content (by necessity historically conditioned by science, philosophy and the culture of a determined epoch).

The grand content constitutes the so-called *patrimonium fidei* or heritage of faith (basically expressed in the Credo). This content has been maintained throughout history and constitutes the backbone of the faith. However, the explanations of the content have been historically conditioned; the explanation of Christianity by the Fathers of the Church (from the inspiration of Greek philosophy) is not the same as in Saint Augustine (from Platonism) or in Saint Thomas Aquinas (from Aristotle). The Christian doctrine of the Trinity (*patrimonium fidei*) is explained in Saint Augustine and in Saint Thomas, but they do not coincide, the two explanations are not the same.

What does this mean? That the divine assistance given to the Church only applies to the grand truths of the *patrimonium fidei*. However, it is compatible with the nature of *historicity* whereby the Church shows these truths in history. The *divine assistance* protects the truths of faith, but does not eliminate historicity. In other words, faith could have been explained in the past with concepts which later history would perhaps consider incorrect or erroneous. For example, the hylemorphic theory of Aristotle.

*Science and theology.* In fact, theology has always been aware of both aspects: the basic truths of the faith and their historically conditioned explanations. On occasions, the Church itself has made use of historicist explanations. However, it has always permitted a diversification of explanations in accordance with the honest understanding of each theology and each theologian. The only requirement has been to maintain congruency with the basic truths of the faith (*patrimonium fidei*). In any case, the attitude of change, evolution and deepening of the explanation of faith has always been maintained. Thus, since the XIX century, Catholic theology has had a subject called *History of Dogmas*.

In the science-theology relationship, we see that both speak of the same reality: the reality of matter, life, man and the universe. Science and theology also speak about the same human person, ethics, society, politics, coexistence, etc. Both the scientific and the religious models of understanding refer to the same reality.

Therefore, revelation refers to the real world (and this is the case in which theology moves). Science describes what reality is like (although not absolutely, but with the limitations explained by epistemology). The expectation of theology is that the image of the universe in science helps progress (as one step more in the progress of history) towards a deeper understanding of revelation.

Where does the relationship of science and theology lie? Insofar as science supposes a more correct approximation to reality, it must suppose an aid to our

understanding of revelation as this entails the true reality created by God. Thus, the «models of reality» in science should help us to understand the «models of reality» in theology.

*Theology-of-science.* Saint Augustine constructed a theology from Platonic philosophy. Saint Thomas constructed a theology from Aristotelian philosophy. Suárez constructed an original metaphysics and from there a theology. Karl Rahner constructed a basic metaphysics, transcendental Thomism, and from there he also constructed his theology. It has always been like this: theology is constructed «from something». This supposes that, as history progresses and knowledge is perfected, it would offer a better perspective in order to continue to deepen the «theological» explanation of Christian revelation.

Therefore, the theology of science would be theology constructed from the image of the universe in modern science, and not only from the natural sciences; theology must be open to other sources (poetry, art, existence, society, work, etc.). It would be a theology constructed with special attention to the idea of the universe, life and man in modern science.

This new theology is required in order to install our understanding of Christianity in the framework of the modern world in accord with the image of the world in modern science. This necessity was manifested by John Paul II in a letter to Coyne, the Director of the Vatican Observatory. John Paul II stated that the work to be done as regards the new scientific culture is of similar importance to what Saint Thomas did in his time, assimilating Aristotle.

The following points help us to understand the theology of science:

- 1) The theology of science is constructed solely from theology. Science itself is neutral as regards philosophy and theology.
- 2) The theology of science is not a closed or dogmatic vision, but is open to history. Science can continue its evolution and new circumstances might make it necessary to construct new theologies of science in the future.
- 3) The theology of science is a free, open and critical interpretation. It is not proposed as an inevitable, absolute truth, but is a critical proposal subjected to dialogue and possible consensus.
- 4) The theology of science is not «science», but philosophy and theology. Its arguments are «likely» and it does not endeavour to deny the possibility of an atheistic or agnostic interpretations of the universe (on condition that these are also critical, non-dogmatic and tolerant as regards the enigma of the universe).
- 5) The theology of science is a research theology. There may be several projects of theology of science. Moreover, except for the *patrimonium fidei*, it must make new interpretative proposals.
- 6) The objective of the theology of science will always be that these new proposals allow a deeper knowledge of Christian theology.

## 2. THE IMAGE OF THE UNIVERSE IN SCIENCE

Science has obtained results which are irrelevant as regards a philosophical-theological reflection. However, there are other results, which are generally

global aspects of the image of the universe which are prone to induce, and even demand the philosophical-theological reflections of a theology of science. We now move on to give a synthetic list of these relevant global results as regards a possible theology of science.

*Epistemology of science: a hypothetical, open and critical science.* Science has created a modern epistemological theory which makes it possible to understand the nature of the knowledge producing science. Beyond the first objectivism-dogmatist of positivism, the present day Popperian and post-Popperian currents consider that the knowledge is hypothetical, open and critical from the facts themselves. Science puts forward global enigmas and numerous intermediate enigmas. On many occasions, these enigmas give rise to several response hypothesis and explanatory theories, and the free evaluation of each scientist must decide on these. Due to this, knowledge is always blurred and open.

*Matter: the inconsistency of germinal matter.* Matter is, simultaneously, corpuscle and wave: the universe seems to be born as high energy radiation which, is «encapsulated» in particles. However, matter can again produce energy as radiation. Matter, the physical reality, is present in the form of corpuscle and as a field. Surprising holistic phenomena are produced in bosonic matter where the particles are diluted in unified states of vibration. In turn, the fermionic matter, in which each particle conserves its individuality, gives rise to atoms, molecules and the bodies which constitute our macroscopic physical universe. In addition, quantum mechanics has described many strange phenomena which contribute to this image of inconsistency of matter: the particles do not appear to have identity in time (as macroscopic objects seem to have), they are born and die, they come and go from a mysterious, imprecise source beyond space and time, which is a quantum vacuum, fluctuating energy, an energy field or the implicit order of David Bohm. Since the EPR proposal of 1935, matter also seems to interact with itself for a non-local reason, by remote action, forming strange holistic units, distributed in space and with no physical contact.

*A functionally flexible and open universe.* Physical science thus describes a mechanistic-determinist world. However, it also has environments of indeterminacy, which are micro-physical in the framework of the classical- macro-physical chaotic processes known by probability and statistics. The physical which science describes today is not the determinist universe of Einstein. It is not an immense clockwork system. It is to a great extent a system determined by laws derived from the nature of matter. Nevertheless, it is also to a large extent, an undetermined system as a consequence of the nature of these laws. A system where the current states leave open a range of future possibilities in which none of these is imposed by determinist force (and this does not mean that they are imposed without reasons). A system where a factor which is difficult to understand plays a role: chance, spontaneity or indeterminacy. The discussion today concerns up to where determinacy and indeterminacy reach. The opinions are diverse. However, there is not only indeterminacy in micro-physical processes,

but also even in classical-macroscopic processes (more in human and animal conduct). In any case, our image of the physical, biological and human world is not rigidly determinist today, but open and flexible.

*A problematic, self-sufficient, stable and consistent universe.* Science (as argued in epistemology) starts from the verification of an objectively existing real world. It describes the facts and endeavours to explain them within the structural systems to which «self-sufficiency» is attributed. «Sufficiency» is understood to be independence or consistency (autonomy of content, even though this is dynamic, so that it might remain as a reality and a being, without disappearing). In the end, all specific content (by immersion of some structures in others) refers to the universe, or system-of-reality-as-a-whole. The universe is the evolutionary, dynamic system which science studies and describes as it objectively is. However, does this system, the universe, have the appropriate properties and characteristics to be presented as a reality, a real dynamic structure, self-sufficient and consistent in itself? Thus, does it have a form and content which makes it possible to understand its autonomous existence in the course of time? Science, as knowledge, expects to know the real universe as a self-sufficient structure. However, the results of science present the universe as a structural system whose self-sufficiency, stability or consistency is problematic and difficult to understand. For the theory of systems, a system can be dynamic but stable. The problem of the universe is not that it is dynamic, but that its dynamism does not appear to be stable, that is to say, self-sufficient.

The gravitational universe of Newton or the first universe of Einstein seemed to have this self-sufficiency which science was seeking. The *big bang* and the evolutionary dynamism of the universe rendered the stability and sufficiency of the universe problematic. The image of a universe with a beginning and which will foreseeably dissolve in the future appeared. As it does not seem to make sense that something comes from «nothing», the search for sufficiency has been one of the basic problems of modern cosmology. This search can continue, for example, through the theory of the stationary state, of the oscillating universe (*big bang* and *big crunch*, along the lines of Hawking), the proposal of the multi-universes and string theory, or the quantum vacuum and energy field, etc. Today the problem of sufficiency is one of the basic problems of cosmology and, therefore, of philosophical reflection founded on the results of science. This is an arguable problem, which involves several positions. However, it is a fact that the problem exists and that the question on the final consistency of the universe continues to be open.

*A universe of surprising physical-cosmological rationality.* It is not only a question that science has the expectation that the universe must be understood as a self-sufficient system (and this is the problem that we have explained in the previous point). It is also a question that the universe which science confirms is a type of universe which, at a determined time in its history, could have been different (have different values of its variables and basic parameters, and have evolved differently). However, among this complex variety of values and possible

evolutions, our real universe always appears as being organised in the only way necessary for everything to end in the emergence of life and human life. Thus, it is said that the real world responds to an anthropic principle (to a form of construction oriented to man). We only wish to state that science confirms the facts and observes the anthropic form or principle of its organisation, the apparent «rational order» of the universe insofar as it is ordered towards an end (man). Thus, it should be asked what the causes of this are. The expected answer would be that the anthropic form of organisation of the universe is explained as a necessity of the very nature of matter, but this does not seem to be the case. Therefore, the discussion abandons objective science in order to enter the field of speculation and philosophy. This is where some reflect on a naturalist explanation or possible multi-universes (connected to string theory). Others speculate on a possible *intelligent designer*.

*A universe of surprising biological rationality.* Rationality oriented anthropically, and confirmable in the physical world, is much more complex and problematic when we enter the biological world. If there is a «physical order», there is also a «biological order» with much greater complexity which is constructed on the basic physical order. This rational order oriented to the development of life, and finally, human life is confirmed in biological science as such. A legitimate question for biology refers to the real causes which produced this biological order. However, although the question is legitimate, perhaps it cannot be answered within the channels of scientific methodology. Thus the final reflection on the way to understand Darwinism today in connection with molecular biology (DNA) again belongs to speculation and philosophy. The evolutionary-naturalist interpretation and the proposal of an *intelligent design* (in their different forms) are philosophy. It is not a question of discussing these speculations or opting for one of them. It is simply a question of confirming that the results of biology have promoted this discussion because, in fact, these confirm a surprising biological rationality. Its causes remain obscure, still enigmatic and appear as a problem.

*A universe which surprisingly produces psychism.* The existence of psychism is an unquestionable fact founded on the experience of man himself. It is the *phenomenological experience* of psychism in the basic form of the *qualia*. Scientific inference (founded on the biological or nervous similarity and on objective conduct) is that, in the organic animal world, the psychic world was forming and was finally noticed in man himself. This psychic world has two basic features: animal indeterminacy (finally human freedom) and holism (for example, the holistic sensation of the body itself as a whole in proprioception or the holistic sensation of exterior space in visual perception). The scientific confirmation of the fact of psychism, as well as its experiential properties, appears in scientific psychology, in anthropology and in ethology (the branch of biology oriented to the study of animal conduct in the objective environment). However, the fact itself leads science to put forward the fundamental question, «What are the real causes of psychism, of its evolution and its functions (perception, memory,

knowledge, emotion, thought, etc.) in the course of time? Answering this question involves the so-called problem of consciousness, also called the mind-body, soul-body, problem, a psycho-physical or psycho-biophysical problem. Science can, in fact, put forward the question and even formulate the expectation of a scientific response (which would undoubtedly indicate a monist answer). However, again science cannot answer the questions it puts forward without going beyond its methodological limitations.

Speculation and philosophy led to the dispute between reductionism and dualism. Reductionism is based on a determinist idea of the world in a mechanistic paradigm. The model was the determinist and «mechanical» cause-effect interaction of macroscopic matter (today we would say the macroscopic matter arising from the organisation of fermionic particles). Living beings were robotic and their sensations an epiphenomenon with no causal effects, nor significance. Dualism, in a humanist way, resisted this robotic image of life and postulated the explanation of the superior psychism of man through a new type of reality which was irreducible to the physical world (the psychic, the spirit, the soul).

*A psychic, emergentist universe with quantum bases.* The modern results of biology have propitiated the appearance of two new perspectives: emergentism and the quantum bases as the producer causes of psychism.

The first scientific result is emergentism as an alternative to reductionism. This continues to exist and has found new support in computational theories of life and man. However, today Emergentism, is a theoretical framework with growing influence. For emergentism, the universe must be understood within a monist framework, but the evolution of matter towards superior organisational levels (new systemic or structural organisations) has led to the emergence of new ways of being real irreducible to the inferior levels. Man would be the superior state of emergence of the universe, and as a new way of being real he would be irreducible to the inferior states.

The second result is being formed today. This is still a number of hypotheses which will probably mature over the next few years although they enable us to glimpse a new psycho-biophysical explanation arising from the basic science of matter. The focus leads to abandoning the determinist mechanism of classical mechanics, referring to a classical-macroscopic world. Instead appears the explanation of psychism from the image of microphysical reality of quantum mechanics. Classical determinism did not permit an explanation of indeterminacy nor the holism of phenomenological experience in living beings, finally, this led to robotism and epiphenomenalism (as can be seen in computationalism). However, the new quantum focus makes it possible to gain a much more appropriate approach to both aspects of psychic experience (indeterminism and holism). Classical neurology (neuronal patterns activated in system by nervous or synaptic connections) would be completed with a new quantum neurology which would be the real physical support of psychism.

We should remember the modern hypothesis of Hameroff-Penrose. This would suppose the existence of quantum states in the microtubules of the neu-

ronal cytoskeleton. In these occur the states of quantum superposition, selective collapse of the wave function or orchestrated objective reduction, quantum coherence and remote action by EPR effects. Thus, consciousness would be a holistic state of bosonic matter, located in several «niches» of the nervous system. In quantum coherence, these states would form unified systems by remote action (EPR effects). Sensation–perception–consciousness would be physically located in these quantum systems. These would be the physical support of animal and human psychism. This focus would open up a way to explain the holistic phenomena of psychism. For example, the holistic sensation of one's own body as a whole, or vision as an opening up of psychism to the exterior space through the electromagnetic patterns of light. The phenomena of coordination of determinism with indeterminism (in the end, human freedom) in living beings would also be explained.

Quantum neurology starts from a case which is not explained, but is admitted as a basic fact of emergentism: that matter has an essential ontology which makes it possible to produce sensation in appropriate conditions. The advantage of quantum neurology as opposed to classical-macrophysics would be the best explanation of the two basic phenomenological experiences of psychism: holism and indeterminacy.

*A dynamic, evolutionary, open and self-creating universe.* The image of the universe is not static. The universe is dynamic which evolves in its open form states. The universe is in a process which «is being made»; it does not have the forecast of the future states which will take place closed. Applying the famous formulation of Popper, this is an open universe, which is not only humanly, but also biologically and physically. Thus, the universe we confirm has a determined form. However, this form shows an autonomous process in which its internal forces produce a self-creating universe. This is a process in which everything happens through the evolutionary coordination of determination, of necessity, of chance and of chaos. Our universe exists, but other universes could have existed and did not. Human life is what it is, but it could have been different, another history could have occurred. Our physical, biological and human future is also open. We can take the universe to one place or another. As Popper said, to heaven or hell. This depends on our freedom as we are thus self-creators, creators of our history in the same way as the physical and biological universe is autonomous and the creator of itself.

### 3. THEOLOGY OF SCIENCE

We have provided some essential profiles of the image of the universe in physical science. We have also projected these towards biology and psychology. In fact, this is the image of our universe in current science, which is different from the nineteenth-century image constructed from classical determinist-mechanicism. However, in the same way that the Aristotelian system led Thomas Aquinas

nas, what way of understanding and interpreting Christianity (the essential truths of what is called the *patrimonium fidei*) does the image of the world in science lead to? That is to say, «What is the *theology of science* of modern science?»

However, science does not necessarily impose a theology. It is possible to have an interpretation of science without theology, that is to say, atheistic or agnostic. However, this atheistic or agnostic scientific philosophy is imposed as science; science is metaphysically neutral and is not philosophy. However, there are those who, apart from modern epistemology and the spirit of science, try to impose these philosophies without God, and try to present what is philosophy as if it were pure, objective science.

The theology of science is a possible interpretation for those who freely assume it. This is a future task to be done, a challenge for Christian thinkers. Therefore, the essay on theology of science we propose here is not the «doctrine of the Church», or of the «Christian churches», but rather, in the sense explained, a theological proposal for heuristic research. However, in our opinion, it is a proposal which is completely congruent with the *patrimonium fidei*. Nevertheless, it is not necessarily congruent with other interpretations of Christian faith formulated at other times in history (for example, the Platonic-Aristotelian or the Scholastic). Our objective is not to demonstrate anything, although our «theology of kenosis» has substantial «arguments of likelihood» in its favour. Now it is simply a question of illuminating the understanding of faith from the image of the world in science.

*A God who is the basis of being.* We have seen how science always seeks to describe self-sufficient systems. If the universe were presented as constructed in such a way that we could understand its self-sufficiency, then philosophy (because science would not have to put forward this question) could attribute «necessity» to the universe. Necessary means being real, existing, and not being able to cease from being. It would not make sense to think that something has arisen from nothing, or that something which exists with self-sufficiency might evolve towards nothing (in this case, it would no longer exist). However, the problem of the universe is that, just as science describes this in time, that it be self-sufficient and consistent is very obscure. The universe is enigmatic for science.

However, it is possible to construct atheistic hypotheses which argue this self-sufficiency. But these are not evident as they have to do with speculation or philosophy. Thus, it is also possible to have a theist speculation which argues the hypothesis and the reality of the existence of God as the basis of transcendent, self-sufficient and absolute being, which, consequently, is necessary. In this regard, the hypothesis of the existence of God would arise as a result of the search for the self-sufficiency and necessity of the universe: God would appear as the appropriate hypothesis on which to base the sufficiency and necessity of the universe. In fact, the theist philosophy of science considers that there are many likely arguments which lead to thinking that God is the self-sufficient and necessary basis. Thus, the image of the universe in science is enlightening

for theology as it permits philosophy to construct the hypothesis of a Divinity who is the basis of the reality and being of the universe. The image of God for Christianity and for the majority of religions is the essential component of theology. Through philosophy, science hypothetically opens up to the theology of a «God who is the basis of being».

*A creator God.* Science illuminates theology because it presents an enigmatic universe which makes the reference to God as the possible basis of being. If the universe were known with certainty as absolute, self-sufficient and necessary, without God, then the image of the universe for science would impose a universe without God. But this does not seem to be the case. God is a hypothesis in order to ground the absolute sufficiency of the universe. The universe does not need God to explain specific times in its evolution: This is not a jerry built God who must intervene at the level of what the Scholastics called «second causes». The universe is autonomous and functions by its own evolutionary laws: the problem of its sufficiency arises on considering its first or original basis and the rational form of its global design. Thus, making God the basis of being requires that God be transcendent, He could not be the basis if he were part of the world because it is the universe as whole that presents a problem of sufficiency. For the philosophy of science it only makes sense to speak of God as the first basis of being, not as a jerry built God who explains the «second causes». This is a very important theme for discussion in the philosophy-theology of the process. In it, God is conceived as a type of «soul of the world» or Platonic demiurge. To our understanding, science makes it possible to have arguments for a God who is the transcendent basis, but not for a God who forms part of the same universe (as does the philosophy of process). Thus, the hypothesis of God as the basis of real being leads to the hypothesis that the universe should have been constituted in being by creation. The theme of the *creator God* is a basic content of Christian faith. Today science has permitted a likely illumination of the creator act of God and, therefore, theist scientific «philosophers» have repeatedly spoken of the *big bang* as a component of creation.

*A universe of divine ontology.* If God is the basis and creator of the universe, then a question arises, «From where or how did God produce the universe? How was creation carried out? Christian theology has always defended creation *ex nihilo*, from nothing. This means that in order to create, God did not use any other existing reality other than God. God Himself was the only presupposition for creation. This means that the world arose from the divine ontology, from within the being of the divinity. In this regard, it is possible to understand Saint Paul when he says that we exist, we move and we are in God. The universe is in God and, for the Christian faith, God is the most profound ontological basis of all existing reality. From God, creation takes place in a mysterious form which we do not know. Modern science is achieving results and theoretical constructs which permit the theist scientific-philosopher to make certain hypotheses which illuminate this ontological presence of God glimpsed in the vestiges of science. Today physics makes reference to several ways in which the explana-

tion of the observable universe, from radiation and the most primitive particles, is very obscure without linking it to a reference basis. This would be like the most basic background from where our visible world would appear as a fluctuation. Thus, today we speak of quantum vacuum, energy field, implicit universe, ether, fields, dimensions beyond space-time where the laws of physics do not govern, etc. This seems to indicate a strange holistic dimension in the background from where matter would arise and where it would also dissolve on disappearing. Theism can consider that these scientific hypotheses make it possible to glimpse, confusedly and in shadow, this universal presence of God as an ontological, holistic, monist and unified basis where all reality arises in the initial creative act which continued in time. In this holistic basis of the universe there would appear the image of God already proposed by Newton in the XVII century as the *sensorium divinitatis*.

*A panentheist God.* Theist scientists and philosophers who have today had the intuition of this holistic image of the universe have introduced the modern concept of *panentheism* as a Christian form of speaking of God. This is the case of Arthur Peacocke. Panentheism should not be confused with pantheism, nor with a God who is the «soul of the world» as in the philosophy of process. Panentheism speaks of God as transcendent, personal and independent of the world. However, at the same time, God is present in all things, and is understood as the final ontological basis of the universe. The early Scholastics always spoke of the divine omnipresence which today would be interpreted more strongly by a panentheism connected to the scientific image of the universe and confusedly drawn image of the enigmatic, holistic ontology of the Divinity. Science interpreted in the theist fashion, would lead to a panentheist synthesis which illuminates the idea of the God of theology as the omnipresent ontological basis of all reality.

*A divine, designer Logos.* Christian theology always thought that creation supposed speaking of a reason or divine logos which had guided the creative act in order to constitute the world. Thus, the rationality present in nature was a sign of the presence of a rational God who would have provided creation with a rational order oriented towards an end (teleology). Modern science, in fact, has confirmed a surprising physico-cosmological and biological rationality which has given rise to what are now the theist interpretation of the anthropic principle and of *intelligent design*. We wish to support the idea that modern science has achieved results which permit the theist scientist-philosopher-theologian to glimpse vestiges of the rational logos born from a Divine Creator in the universe, in life and in man. This is an important aspect of the illumination of theology from science as this makes the creator logos considered by theology intelligible, while it illustrates and illuminates it. But, to our understanding, the form of analysis of authors of *intelligent design*, such as Behe or Demski is erroneous due to the insistence that God is necessary in order to explain intermediate processes (e.g. the evolutionary appearance of the eye). Using God in this way is to convert him into a jerry built God who must continually come to the

aid of a process which cannot reach its end. The presence of the divine logos in creation must be seen not in the intermediate states (what the Scholastics called «second causes»), but in the global cosmic design of all the process with its intrinsic teleology. Scientists such as William Stoeger of the Vatican Observatory or theologians such as Haught of Georgetown have insisted on this point.

*Evolutionary design of an open and autonomous universe.* Science presents a universe which, as a whole, seems to show a precise order oriented to the final objective of human life and freedom. This cosmic rationality already begins in the physico-cosmological factors. It continues with the factors of the post-being biological order which results in the human person. Theist reflection finds likely vestiges of a rational design attributable to a divine logos in this post-being congruence. However, the rational design of creation shows a universe created as autonomous and open, and which changes state in time from its own internal processes. This is an evolutionary theism produced by the universe by determinist factors, by necessity, by indeterminism, by chance and by chaos. Rational design reaches its teleological finalities (man and human history) through a number of factors which include chance and chaotic fluctuations. The universe described by science is an open, flexible and autonomous universe. This universe illuminates theology as regards the precise form of the rational logos which has oriented the creative process of God.

*A universe in which divine action is possible and likely.* In order to understand what we mean, we should remember the determinist thought of Einstein and his way to understand religion. For him the universe was determinist and it did not make sense to think that God could intervene altering the determinist necessary concatenation of the evolutionary states of the universe. However, the image of the universe in current science defends indeterminism, chance, chaos, probabilistic, statistical flexibility, as we have mentioned above. This has opened up a way to reflect in order to understand how divine action in the world would be possible and likely. Authors such as Peacocke, Stoeger, and especially John Polkinghorne have studied how divine action could be implemented in the world. As the universe is open, indeterminist, chaotic and flexible as regards quantum-microphysics and classical-macrophysics, divine action would not be unlikely. For Polkinghorne, for example, our image of the universe is not incompatible with such important aspects of religious experience and Christian theology such as Providence, or even miracles. Moreover, the idea of God as the basic and omnipresent ontology of the universe, as well as the panentheist interpretation, would also make the mystical experience of religions understood as the internal, spiritual and psychic closeness to the presence of a God whom we speak to and who also listens mystically.

*A monist ontology of the psycho-biophysical world.* Today the physical-chemical paradigms of natural science are the basic explanatory framework of the life sciences. Starting from its biochemical content and the genetic code, the

theory of evolution explains how living organisms arose from the physical world. Biology was and continues to be partly «reductionist». However, the biological explanation for many is no longer reductionist as its conceptual framework is emergentism. Also in relation to this, the explanation of the «sensibility» which emerged in the course of evolution, probably unicellular, is supported by the proposals made from the perspective of quantum neurology, mentioned above. If the universe has a basic divine ontology, then, it can be thought that this ontology will be near to what we call sensibility, psyche or spirit. The process of creation from this divine ontology would have produced a world of classical-macroscopic objects formed by the organisation of fermionic matter. It would be a world of disintegrated differences. However, in living beings, a way would have been opened up little by little in order to recuperate a certain sensibility. This way would be joined to bosonic states of matter in which it would be possible that holistic fields of quantum coherence might appear, as was explained above. Thus, the animal psychic subject would have appeared through the sensation of the body itself and through the senses. This monist explanation of life, or of the psycho-biophysical world is not contrary to Christian theology, but rather favours it. It shows a greater unity between psycho-biophysical reality and the profound ontology of the universe founded on the divinity. The process of creation from the physical to the biophysical can be seen as a process of emergence of the ontological properties which approximate the world to the divinity. This vision of science enriches the Christian idea of creation *ex nihilo*, and presupposes only the divine ontology.

*A monist ontology of the human soul.* For science, in this continual evolutionary process, man appears on a superior level of emergence, irreducible to the inferior levels of animal life. In man, reason and the other vital features of the human psyche permit the configuration of the human person. The being thus created evolutionarily would be the possible subject of what is understood as interior divine appeal. In Christian theology this is what would be called the Grace of the Spirit. Current science would drive the theology of science to leave dualist interpretative marks (founded on Greek-Scholastic philosophy) in order to pass on to an idea of the human soul founded on a monist idea of the universe. This new idea of anthropology is perfectly compatible with the grand principles of Christian tradition. These do not impose dualism. Monism is reconcilable with biblical anthropology and with Christianity.

*Man as created co-creator.* This expression was popularised by the American theologian, Philip Heffner, and is very important because it makes it possible to gain an intuition that the nature created by God is not static, made, closed. The natural laws would be a closed expression of the universal divine will (we should remember the Scholastic theories on Natural Law). God made the world autonomous and open so that it would make itself. Thus, we can speak of man as a *co-creator* (who creates himself in liberty), but also as a *created co-creator*. Therefore, man participates as a co-creator of a creation made and sustained fundamentally by God. God created the world in this way for freedom. The di-

vine will is to accept the co-creating activity of humanity. This would orientate the dynamic transformation of the world and of human history with its activity.

*A provisory reason as regards an enigmatic universe.* The results of science are very different today from the XIX century. Then, dogmatic, closed and secure epistemology was normal. Today, rational criticism specified by the epistemological theories of Popper and other post-Popperian authors is defended. Science is provisory, critical, hypothetical knowledge. Science describes an enigmatic universe we know many things about, but, in the end, it continues to be a grand unsolved enigma. Thus, the results of reason are not considered to be absolute truths, but provisory results which must be subjected to a continual, critical revision. Scientific culture hypothetically moves in darkness. This general style of modern science (and not only of science but of modern culture) must also illuminate theology and be constituted in one of the essential styles of the theology of science. The philosophy and theology of past centuries (and science itself in the XIX century) were constructed on security and dogmatism, in short, they were the epistemologies of a past time which has been surmounted. However, at the present time, Christian theology must abandon epistemologies already surmounted in order to learn to orientate itself towards the critical and enlightened epistemologies of our culture. From these, it should then reinterpret many focuses of theology for its enrichment.

*The interpretative ambivalence of an enigmatic universe.* The universe, science, therefore, do not impose the idea of God as an existing reality, nor a determined theology of science. Therefore, no one must be worried on reading our theology of science. We do not impose it dogmatically, we only say that there are many «arguments of likelihood» which make it possible to value and accept it freely. We admit perhaps that others can construct other theologies of science. Moreover, we also respect the objective feasibility of those who freely decide to construct an atheist or agnostic interpretation of this same enigmatic universe. Therefore, what we say is that our proposal of theology of science is feasible and is constructed by likely arguments grounded on the results of science. We even believe that this is the more likely interpretation. Current theism arising from a reflection on science does not intend to impose itself on anyone, but it requires that the argumentative likelihood of its position be respected. Not to have this respect would be incompatible with the principles of the modern epistemology of science and with the critical, illustrated intellectually tolerant spirit of our culture.

#### 4. THEOLOGY OF KENOSIS AS THEOLOGY OF SCIENCE

Therefore, in short, what type of *theology of science* leads today to the *image of the universe in science*? To conclude this article, we now endeavour to answer more succinctly. Our proposal is that the theology of science leads us to a *theo-*

*logy of kenosis*, that is to say, it leads us to the theology of kenosis as an essential and basic part of our interpretation or current hermeneutics of Christianity. The logical route which leads to this theology of kenosis can be summed up in four points which we explain below.

*First: man and the nature of his knowledge.* Science offers us an image of man in the framework of the evolutionary paradigm. Life emerged from the physical world and the human being from life as its most perfect terminal product. The human mind and its psychic functions, its knowledge, have been made dependent on a process of adaptation to the objective environment (a process we call *a posteriori*). Thus, once reason emerged, man asks himself, «What is my human truth?» «What is the universe ultimately? The response must be constructed by the efforts of reason, describing the verifiable facts and making rational, critical and revisable inferences. This is what science has done. And this is also what the ordinary man does by exercising reason in his life. He observes the world, his own life, his own history and establishes the metaphysical hypotheses which must give meaning to his life. The knowledge and the meaning of life are constructed *a posteriori* by the free exercise of the human faculties constituted evolutionarily.

One remark. It is true that, from the point of view of the Christian faith, we know that every man is called interiorly by a mystical, supernatural presence of the Spirit (the «Grace» spoken of in Christian theology). However, this presence of God is not evident and clear. It is obscure and can never be discovered by the use of reason which the natural man exercises *a posteriori*. Nevertheless, this same, interior, mystical experience is an *a posteriori* fact (interior phenomenological experience) present in the religious experience of Christianity and that of other religions. In Christian theology, as a rational explanation of faith, this interior experience will play an important, congruent role.

*Second: the real enigma, two possibilities of ultimate interpretation.* The natural exercise of reason, which is ordinary or derived from science, situates man before an objective world. Reason is exercised in science (and in other ordinary forms of knowledge). Science constructs its image of the universe. It shows an enigmatic universe which, on being subjected to a philosophical analysis supported by science, leads to two possible hypotheses regarding the ultimate interpretation: a theist interpretation and an atheistic or agnostic interpretation, that is to say, purely worldly, without God. Is it possible to deny that these two hypotheses are not possible? Of course, this is very difficult unless we go back to the theist or atheistic philosophical dogmatism of the XIX century, abandoning the tolerant enlightened criticism of our culture. Today, theism as we have seen has arguments of likelihood for its hypothesis and atheism and agnosticism also have arguments for theirs. The same sociology shows us that these two hypotheses are, in fact, feasible in society. The ordinary man of our culture is open to these.

It is very difficult to deny things are like this. This double opening is admitted by the important authors in the science-religion dialogue: for example, Bar-

bour, Peacocke and Polkinghorne. This means that the old theology must change its perspective because, until now, it has moved within an imposed God centred framework. Scholastic philosophy imposed the absolute, metaphysical certainty of God. Transcendental Kantian Thomism (Marechal and Rahner) also impose the existence of God as an a priori transcendental presupposition (in the Kantian sense). Thus, God would be a transcendental conditioner of all human action and all natural knowledge. However, currently science orientates towards a theology which sees man as immersed in the enigma of the world and open *a posteriori* to this double possibility of interpretation.

*Third: the meaning of divine concealment.* If this situation is correct, what is the position of man in the world? Man would be open to the enigma of the real and the possibility of both hypotheses, God and the pure worldliness without God. In short, God would not necessarily be imposed by the objective conditions as there would always be the possibility of a purely worldly hypothesis. Therefore, although man might be inclined towards a religious interpretation, he would do so admitting that, in the end, the real God maintains His silence in creation (He has created the world in such a way that it is possible to interpret it without God). Although nature permits the hypothesis of God (with likely arguments), there is no absolute rational security of His existence, and if the real God exists, He is concealed and in silence. Thus, man in the world must be understood as a being open to two ultimate questions about God. The first: This God who created the world but remains concealed and silent—Is He real? The second: Is this concealed God willing to relate with man and to liberate history? In the final analysis, there is only one question, «Is a concealed liberating God real?» When man is religious, even though he is not Christian, he always takes up a positive position as regards these questions: natural religiosity is founded on the opening up to a saving God (an ultimate saving power) above or despite His concealment and His silence. The religious man believes that the «divine concealment» has an explanation: to create a world in which freedom, autonomy and human dignity are possible. These are the freedom and dignity which man himself notices in his own vital experience, understanding that one opens up or closes oneself to God by using human freedom.

*Fourth: the hermeneutics of the Mystery of Christ.* Christianity is founded on the religious experience of Israel which culminates in the Mystery of Christ: the Mystery of the Death and Resurrection of Christ. The Christian *patrimonium fidei* and Christian theology have always considered that God carried out and manifested before men the meaning of his saving plan in this Mystery of Christ God. This is the divine plan in the creation of the world and in the liberating salvation of human history and of each man in his personal individuality. Therefore, if man in the world is the we have described above (existentially open to the questions on the concealed God and the liberating God), then this man achieves a logical way to understand the Mystery of Christ. This is the human hermeneutics of the Mystery of Christ: a way to understand what God has done and what He has manifested in the Mystery of Christ. The *Death of Christ* (knowing

that Christ is a divine person for Christianity) is understood as the confirmation and response to the question on the concealed God: the Cross manifests the existence of a God who accepts the kenosis, the nothingness, the concealment, of His divinity before the world in order to constitute the free history of men, fully assuming the human use of freedom. The *Resurrection of Christ* is understood as the advanced realisation in Christ and the announcement of a future liberating intervention of the Divinity in order to save human history. The resurrection tells us, in fact, that the question on the liberating God has a positive answer: God passes through the time of the concealment, of the kenosis in the death of Christ on the Cross, but in the Resurrection it is manifested that His final plan is the meta-historical liberation of men in accordance with the use of his freedom in history.

*Theology of kenosis, a liberation theology.* The basic biblical text in the theology of kenosis is in the Epistle of Saint Paul to the Philippians. This is the hymn which says, «Have among you the same feelings as Christ, Who, having the divine condition, did not avidly retain being equal to God, but emptied Himself (kenosis) and took the condition of a servant, making Himself similar to men and appearing as a man in his conduct; and He humbled Himself, obeying even to death and death on the cross. Thus, God exalted Him and granted Him the Name which is above all names so that every knee in heaven, on earth and in the abysses will genuflect at the name of Jesus, and every language will confess that Jesus Christ is the Lord for the glory of God the Father» (Philippians 2, 5-11). This text has been traditionally applied to Christology; that is to say, interpreted as referring to Christ, in the kenosis of His incarnation and His death on the cross. However, the theology of kenosis, assuming the interpretation in this Christological sense, projects it on God Himself and speaks of the «kenosis of God» in creation. On creating the world, God would have admitted the kenosis of his imposing presence, of the presence of the Glory of His Divinity, in order to be manifested in the form of a world in which He is concealed. This is the meaning of the «kenosis of Christ» which, in short, is the same «kenosis of God» as Christ has the «divine condition». On creating, God would have admitted His concealment, His kenosis, making human freedom possible in a world created as enigmatic for human knowledge (epistemological kenosis). However, the last intention of God would be to glorify the sacrifice of Christ before the world for human freedom and to go on to the liberating salvation of humanity through the meta-historical Resurrection.

The Theology of Science is the historical occasion which leads us to understand something which was already in the most ancient essence of revelation and Christian theology: the theology of kenosis. It is so when it shows us that we live in an obscure enigmatic universe, in which the final explanation could be God, but it could be the pure world without God. Science leads us to understand that the real God, the Christian God, is a God who can be known by reason and is accessible to human freedom. However, at the same time, this is a concealed God who remains in silence by the kenosis or nothingness of the Glorious manifestation of His Divinity before the world. Thus, the God of Chris-

tianity is the God of freedom. The God who creates human freedom, sustains it and respects it. Thus Christianity is the religion of freedom.

Today the Theology of Science as a theology of kenosis seems to move to this type of theology, theology of freedom. Current theology must be questioned by the challenge of this *heuristic hermeneutics* which, is perfectly in accordance with the *patrimonium fidei*, with the grand content of the Christian faith. At the present time traditional scholastic ontology (derived from Greek ontology) is difficult to sustain, the epistemological positions of Kantian apriorism incompatible with the aposteriori evolutionary paradigm of science and, in general, the theocentric philosophical anthropology (either objective or transcendental) which considers that certain and sure, absolute and metaphysical access to God is possible by pure reason. However, the enigmatic, obscure world which science describes seems to lead us to understand that access to God is only possible from the admission of divine concealment, in short, this is accessing God through Christological mediation, that is to say, accepting the Mystery of the Death and Resurrection of Christ.

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