



EDITORIAL

THE CONTRIBUTION OF SCIENCE/PHILOSOPHY/RELIGION DIALOGUE TO TRANSDISCIPLINARY AND INTER-CONFESSIONAL APPROACHES TOWARDS A BETTER SOCIETY

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The publication of the second issue in the special series «Ciencia, Filosofía y Religión» (*Science, Philosophy & Religion*) of the PENSAMIENTO magazine (July 2008) coincides with the Metanexus World Conference 2008 to be held in Madrid at the Universidad Pontificia Comillas. This event is the reason for this second issue in the series being devoted to the Metanexus Institute. But if we focus on our magazine's objectives—and in particular the «Ciencia, Filosofía y Religión» (*Science, Philosophy & Religion*) series—, as well as the Science, Technology and Religion chair within the Sophia Iberia project funded by the Templeton Foundation and the Science, Technology and Social Ethics programme at the *Escuela Técnica Superior de Ingeniería* at U.P. Comillas, there is an obvious alignment with the objectives of the Metanexus Institute. This means that we do not have to step outside our interests in order to join together with the interests of the Metanexus Institute. In both cases, these are interests aimed at encouraging «ideas» and «nexus» that lead to a better society and greater human cohesion.

But what interests are we talking about? Broadly speaking, we are dealing with what the Templeton Foundation has called «the great issues and questions» that have been present throughout history and which are raised again today with perhaps even more force. Questions that, as such, do not necessarily require an answer, but which encourage us to look towards the ancient concerns of human beings: expanding knowledge to the essence of the universe, the ultimate metaphysical foundations, the meaning of life, values, ethical, moral, personal and social obligations and commitments, the search for and exercising of freedom, the value of religions, ideological and worldview pluralism, solidarity, respect and tolerance, scientific, intercultural and inter-religious dialogue, poverty and compassion for those who suffer,

poverty, justice, the development of civilisation, etc. These are undoubtedly important issues, which affect the moral conscience of people, groups of humans, nations and cultures.

However, are there answers to these important questions? Just by observing the world stage of societies and cultures we can immediately see the huge variety of metaphysical beliefs, religions and ideologies. This seems to show that the universe in which man lives and in which he aims to understand his own self—in order to live—is disconcerting, dark and enigmatic. It is like a polyhedron of infinite sides that reflect different images taken on in a creative way by the different metaphysics, religions, ideologies, cultures and ways of life.

Despite so much factual diversity however, we, as humans, hope to fulfil one of humanity's ancient desires: to base our lives on the idea of inter-human communion, to live as brothers in society, to achieve perfect cohesion not only with our immediate fellows, but with the universal human species. This instinctive drive to «live with» others is more deeply-rooted and fundamental than the drive for «aggression towards others». Suspicion and aggression between humans probably resulted from a dysfunction that was already imbedded in prehistoric times, an existential mistake, the «mismanagement of co-existence». We have already reflected on this topic in the editorial of issue no. 1 of this series (2007, no. 238 of PENSAMIENTO) – «Contributing to social cohesion for a harmonious co-existence in an ideal community».

THE «LINKS» THAT LEAD TO «SOCIAL COHESION»

The burning question is therefore «how do we achieve inter-human communion»? At first glance, it seems that the already mentioned huge diversity of «existential, personal and communal designs» is the main obstacle to «social cohesion». We shouldn't forget that diversity (difference) has often been the reason for conflict throughout history; at least amongst people who continued to follow this ancient «mismanagement of co-existence». For this reason, there have always been, and continue to be, people who think that we must overcome, or remove diversity in order to achieve co-existence: in other words, we must strive for a «shared universal design of existence» (i.e. all Christians, all Muslims, all Buddhists, all Agnostics, all Atheists, or all «the same thing»). We believe however that this kind of standardisation is not only unfair, it is also impossible.

We strongly believe that existential diversity is a natural right which is not an obstacle to achieving what we have called «inter-human communion» and «social cohesion». Diversity is an inevitable consequence of human freedom; creative freedom exercised in a complex, dark and enigmatic universe. Diversity naturally arises in a dark world that appears to be made for creativity. Metaphysical constructs, ideologies, religions, cultures, ways of life, etc. are a wonderful product of creativity. It is therefore fantastic that people stick to their traditions, both personal and communal. This attachment is based on the fact that these traditions are the result of creative freedom and the fact that they continue to make creative freedom possible. Moving towards «inter-human communion» does not require one's own tradition to be rejected: it would be unfair and impossible for «human cohesion» to be incompatible with diversity.

What is then this path towards «inter-human communion»? We believe that the answer may be the following: to make use of creative freedom—which exists in all human traditions and «existential designs»— in order to find the «links» (*nexus*) that connect them, so that knowledge about these links shows us the way towards mutual understanding, towards respect and towards mutual enrichment. In order to «go beyond» (*meta*) towards a utopian future of increasing «inter-human communion», we must first focus on the *nexus* that joins us with other peoples, cultures, ideologies, religions and ways of life. Every one of us can be true to our own traditions and existential design; but we can all be aware of the *nexus* that

joins us to other human beings. This could be one way of interpreting the concept of *metanexus* (transcending networks) from the humanist and co-existing background of its social commitment.

In chapter four of his most outstanding work, *Die Phenomenologie des Geistes* (*The Phenomenology of Spirit*), Hegel brilliantly formulated the ultimate meaning of history: to reach a collective state (*Spirit*) where «the I is We and the We is I». He understood the path towards this «inter-human communion» (towards this careful balance between the individual and the communal). He called it «mutual recognition» (*gegenseitliche Anerkennung*). Only when people engage in mutual recognition of each other as «free men» is «communion-based existence» possible. Only then are respect, tolerance, true appreciation, compassion, mutual enrichment and peace between people of different metaphysics, ideologies, cultures and religions possible.

SCIENCE AS THE LINK TO «INTER-HUMAN COMMUNION»

Human diversity is shown in the different metaphysical possibilities. But not only in metaphysical terms, as diversity is also shown in many other ways. The metaphysical element is essential, because it affects a human being's most deeply-rooted senses. It is true that in our society, some people have very little sensitivity for and interest in metaphysical issues; but they are a minority. In fact, we make a distinction between atheists, agnostics, theists and «religious» people (members of organised religious groups). There is still a lot of aggression between these different groups (although in the past, there was even more): between atheists and theists, between atheists and theists and religious people, between different religious groups, etc. This multi-directional aggression is, at the end of the day, the result of a lack of understanding between the different groups, contempt, a lack of tolerance and inter-human «mutual recognition».

How can we overcome these tensions and inter-human misunderstandings? In other words: how can we create «links» that enable «mutual recognition» and progress towards increasing «inter-human communion»? Here is where we need to express our strong belief that science is currently emerging as a powerful factor in inter-human community and cohesion. There are obviously other possible cohesion factors; but science is emerging today as a special force. Science has been and is an effective cognitive tool for the technological control of the world. But today, it is also emerging as a powerful social factor in «metaphysical cohesion». Why?

Science's emerging role is a result of its own nature. 1) It creates highly reliable and rigorous knowledge (although it is always hypothetical and subject to critical review). 2) This information is created with the guarantee of levels of objectivity that can easily be agreed upon, although it is sometimes debateable. 3) Science has a deep understanding of decisive aspects of ontology and the universe's procedural dynamic. 4) Due to its own method however, it doesn't enter into the ultimate metaphysical knowledge of what is real. 5) It is growing in social prestige because of its methodical rigor, because of its use of technology, its in-depth information about the world and because of its metaphysical neutrality.

Although science is therefore not metaphysics, it provides results that should be considered by metaphysics (philosophy). It is incorrect to use science in itself to provide «metaphysical results». Science is metaphysically neutral. It is only philosophical reasoning (from another legitimate knowledge discipline, but not scientific) that discusses scientific results with a view to metaphysics. The inevitable consequence of science's current prestige is that metaphysics, ideologies, religions, cultures and ways of life, etc. look for reinterpretation in light of the image of the world expressed through modern science. Atheists and agnostics use science to argue (but this is now philosophy) their metaphysical stance. The big religions

do the same: Christianity, Judaism, Islam, Buddhism, Hinduism, etc. They all want to emphasise their ancient beliefs in light of scientific knowledge, because they know that they cannot present a view of the universe that conflicts with science. When reinterpreting themselves using science however, they should use what we called before «creative freedom», which initially creates and constantly updates respective existential traditions.

Those who look to science for clarification (atheists, agnostics, religions, etc.) are therefore within traditions that demonstrate «different diversity». But science represents a compact body of knowledge that is metaphysically neutral (although with many obscurities and uncertainties that form a part of the same image of the world in science). We could describe what is happening by saying that, from an existential diversity point of view, a modern creative effort has been made towards convergence in science. Different origins flow together in the neutral field of science and there the most varied metaphysical traditions meet. In this situation, it is almost inevitable that we see science as a wonderful «communications hub» where metaphysical streams from different origins converge, but which —through science— are able to link with the streams (or motorways) that lead to «the heart» of other metaphysics. Differences can be connected through science and here they form the link that allows the metaphysical pulse of other humans to be felt. Science is therefore a neutral territory that enables «communication links» between metaphysics, ideologies, religions and cultures to be formed. The path towards inter-human community and cohesion could be opened up through convergence in science.

THE METAPHYSICAL PROJECTION OF THE «IMAGE OF THE WORLD IN SCIENCE»

The question, then, has primarily a twofold aspect: 1) What is the image of matter, of the universe, of life and of man from the perspective of science? 2) What consequences does this image have for our metaphysical knowledge of reality? Yet there is also a third aspect: 3) What «nexus» or «modes of communication» do this image and these «metaphysical consequences» leave open between the diverse metaphysical systems and religions?

We have already said that science is metaphysically neutral; but it produces kinds of knowledge that must be considered by metaphysics, and constructed in a philosophical discourse. When all is said and done, science as much as metaphysics (i.e., ideologies, religions, cultures, etc.) aspires to know «the same reality». It is therefore correct for metaphysics to turn to science, so the latter can help shed light upon its idea of reality. But those points which interest metaphysics about science are those crucial fields in which science draws close to the ultimate, the metaphysical, the ground, the final and absolute explanation of the universe.

Metaphysics interprets in a certain manner «the ultimate»: atheism, agnosticism and religions effectively have their own «metaphysics». In general, all metaphysical systems have a «humanist» idea of man, as a personal being who creates his history by means of free decisions. Religions, in addition, believe that there exists transphenomenologically (i.e., beyond our immediate phenomenological experience through the internal and external senses) a mystic reality that will welcome human life after death and that, for almost all religions, responds to a God understood as creator-ground. Nevertheless, does the image of matter, the universe, life and man from the perspective of science permit us to think that our «humanist» idea of man is legitimate? Does it permit us to think that the existence of a «metaphysical mystery» or of a «ground-creator God» is plausible? Let us think about what would happen if science effectively «demonstrated» or «almost demonstrated» the existence or non-existence of God. The consequences this would have for agnostics, atheists, theists, or religious persons are evident. It is certainly a fact that there is an open discussion between them for the purpose of arguing that the results of science support one particular metaphysics

more than another. But what is really the case? To what kind of evaluation of metaphysics is science leading? To respond to these questions we should first demarcate the realms involved in the answer.

For this, were we to commence by establishing the concept of the «metaphysical field» of science, we would define it as those «sensitive zones» in which the results of science have a special implication (special consequences) for metaphysics. They are zones where science reaches its limits, so that the answer to the questions that science itself raises cannot be provided by the scientific method; consequently, it connects with philosophy and metaphysical argumentation.

Here we highlight three «metaphysical fields» of science which we consider most important, although they are not the only ones. They are important by their very nature and because, in fact, they have been posed throughout history as well as today. These three «metaphysical fields of science» are the following: first, the problem about the «consistency and stability of the universe», second, the problem about the «causes of the physical and biological orders», and third, the problem about «the origin and nature of animal and human psychism».

The problem about the consistency and stability of the universe

Science always begins with facts. Thus, the phenomenological experience of our body and of the objective world confirms the existence of a system-of-real-things as a dynamic structure of interdependent events. A cell, a living organism, a rock, a planet, the solar system, a galaxy, the universe, etc., are «real» as «structures», as «systems of interdependent events».

The expectation of human reason from science (as it was from philosophy in the beginning) is that this «existent real system» exists in fact because it «can exist». So the universe «can exist», it is expected to possess some properties. 1) Its dynamic contents should maintain in time a systemic relation and interdependence (consistency). 2) This consistency should be stable in time (reason postulates dynamic stability only, but not staticity). 3) Consequently, reason postulates that the consistent and stable reality is «sufficient», i.e., it is «absolute» in the sense that it needs nothing other than itself to maintain its dynamic consistency and stability in the course of time. 4) This sufficiency would involve attributing to existent reality the «necessity» of maintaining itself: since if it ceases to exist at some point in the past, present or future, it could no longer justify its actual existence.

Nevertheless, the real manner by which the universe is made—and described in science—makes it difficult to understand how these rational expectations can be met. Thus, the problem about its consistency and stability is posed. The gravitational universe of Newton and Einstein made a stable, consistent, and eternal universe intelligible. But new unquestionable empirical facts supported the Big Bang theory, the «the standard cosmological model» and the «standard model of physics» (particles). It was not easy to attribute consistency and stability to a universe that seems to have begun at a particular moment in time and that seems to be directed to a future «heat death». Science reacted by constructing theories (hypotheses and suppositions) about other models of the universe that assumed the *big bang* but presented a dynamic consistency and stability. We cite Hawking's «oscillation model», and above all, the «bubble universe» and of multi-universes (multiverses) theories. The string and super-string theory would also offer theoretical support to the multi-universes theories, since it presents a complex supposition about the germinal ontology of matter that would explain how and why multi-universes could have been produced. In any case, science today poses the problem of how to explain the consistency and stability of the universe.

Undoubtedly, all these are related to one of the principal «metaphysical fields» of science, since it seems that the universe actually makes it difficult to explain its own consistency and stability. In other words, given how the universe presents itself, it becomes difficult to

understand how it can be «self-sufficient» insofar as its own «existing reality» is concerned. This problematic leads science to engage in metaphysical suppositions.

The problem about the causes of the physical and biological orders

Science confirms the existence of a dynamic and evolving universe, the product of the organization of matter through an evolution process in time. Expansive energy, particles, atoms, celestial bodies, physical objects, living beings emerged in the primordial genesis of matter. And it is a fact that the evolution process produced an organized universe: the physical order and the more complex biological order. Science therefore asks about the causes that made the production of these orders possible, as confirmed by empirical experience.

Science initially searched for the response in one direction, expecting the real properties of matter (its ontology) to be the causes of the physical and biological orders. Within a Darwinian scheme, physical ontology (physical laws), chaos, chance, and necessity would explain why our world was organized in this manner. However, the physical laws and circumstances of the evolution process led science to understand that the world at certain moments could have evolved in different directions. For example: Variables that could have had some or other qualitative values could have influenced significantly the organization of universes different from ours. Thus it is confirmed that the universe has an «anthropic construction» (a precise manner —among many others— of being constructed making life and the human being possible).

When looking for the causes of this «anthropic construct», science posed the possibility of the so-called «anthropic principle», interpreted in a weak or strong sense. But whether another cause we should call «design», aside from the ontology of matter, should be admitted is the question. It is related to the multi-universes theory, since within a «Darwinian cosmology» one can explain the random production of the surprising «anthropic» properties of the universe's physical and biological orders without recourse to any design.

In any case, the problem regarding the causes of the physical and biological orders is undoubtedly one of the «metaphysical fields» discussed in science. A «metaphysical design» of evolution could perhaps be attributed to a divine designer-mind. In turn, the design would pose the problem about how to conceive the manner by which God *a radice* would have designed a universe that is simultaneously anthropic (directed to man) and autonomous (evolving by itself without the need for a «God-of-gaps»).

The problem about the origin and nature of psychism (consciousness)

The existence of the physical universe and life is surprising. Even more surprising perhaps is the existence of human and animal psychism. The existence of the capacity «to sense» the physical world and life itself is baffling. Limited to superior animals and man, psychic experience as a fact is usually called the experience of consciousness. Consciousness, psyche, or the human mind produced history, society, and science itself. Psychism is a phenomenological experience that, as such, should be described. Various authors agree on emphasizing three of its phenomenological features: the unity of the subject (mind) as an information-response system, the indeterminacy or openness of responses (freedom in man) and the «field» or «holistic» nature of psychic experience. As subjects, we «sense» by means of the senses the unitary «field» experience of our body as a «totality», and, at the same time, our immersion in the world, above all, in the «fields of light» that link our ontology to the external ontology of the cosmos.

Science should explain all natural phenomena; thus, it cannot ignore the epistemological necessity of understanding the causes of psychism. In principle, the expectation of science

is monist, since it seeks to explain psychism by means of its physical and biological causes. First, the physical world was organized; from the physical world emerged the biological world; within this physico-biological world, psychism slowly emerged. The unity of evolution leads science to suppose that life and the human/animal psyche (consciousness) were constructed from a «physical support» that made them possible within the evolution of the universe.

For many centuries, this strange psychic experience has been related to the world of «spirit», different from the purely physical or material world, that would connect us to a metaphysically transcendent dimension. From the time of the Renaissance, modern science has also tried to explain psychism, although not always successfully, as we will see. In any case, science and philosophy are engaged with an old theme whose modern version is the so-called theories of mind and consciousness.

THE MECHANICIST-DETERMINIST PARADIGM AND THE REDUCTIONIST EXPLANATION

The interaction and dialogue of metaphysics and religions with science cannot be understood independently of the paradigm that dominated science for many years (and has not been completely surpassed yet). We refer to the reductionist paradigm grounded on a mechanist-determinist image of the physical world (applicable also to the biological and human world). Science explained the consistency and stability of the world from the perspective of mechanicism-determinism; and because of reductionism, the same perspective was employed to explain the physical and biological orders, as well as psychism, consciousness, and man. But are mechanicism-determinism and reductionism the correct scientific paradigm? Are they necessary for science? Do they explain «everything» or do they provide only «part of the explanation»?

Reductionism makes it easy to understand the difficulties that metaphysics and religion had for many years in their dialogue with science. However, to understand the current parameters of the science-metaphysics-religion dialogue, it is necessary to note that the reductionist paradigm is not absolute, and that science is actually moving towards a «new paradigm», to which I will refer later. This «new paradigm» makes it possible for metaphysics and religions to find a powerful and enriching light in science. Consequently, what we said earlier is now made possible: that the confluence in science creates «meta-nexus», the transdisciplinary nexus of communication with metaphysics and religions.

Reductionism effectively did not make the creation of these «meta-nexus» possible because it did not even make the metaphysics-religion nexus with science possible. Born from classical mechanism, reductionism explained entire reality as action-reaction systems (or classical cause-effect systems). Its consideration of external interactions (by «friction» or «tangential contact») was limited to independent and autonomous entities —some separated from others— that acted according to four natural forces (gravitational, electromagnetic, strong and weak nuclear). Reductionism was «reduced» to consider only the existence of a world organized by what we today call «fermionic matter»: particles (protons, neutrons, electrons, etc.) or autonomous vibratory fields whose «wave function» makes their unity in «quantum coherence» difficult, maintaining their differentiation and producing the organization of objects that we find in the macroscopic world of classical mechanics. This manner of thinking produced a biology that is reductionistic and mechanist-deterministic, and a robotic image of man expressed concretely in current computational theories of man (following the «strong metaphor» of the computer) or in new versions of «neural determinism». Reductionism also had epistemological consequences: a «dogmatic» science, a science of absolute and unquestionable truths, reflecting a natural objective world of determination and mechanicism.

THE «NEW PARADIGM» OF SCIENCE AND THE SCIENCE-METAPHYSICS-RELIGION METANEXUS

What, then, is the «new paradigm» of science? It is important to have a very clear idea about its profile, since it establishes the kind of science that should be promoted for the science-metaphysics-religion dialogue to be viable. First, let us look at the «identikit» of this new paradigm. Second, the nexus that connects it with the metaphysical and the religious. Third, the intercommunication nexus opened between metaphysics and religions that make a greater communion and interhuman cohesion possible.

The «new paradigm» of science

1) It assumes that the explanation of the world —physical, biological, and human— should be made according to a mechanistic-determinist image. Today no one seeks to deny the fact that the determination and interaction among «fermionic» objects explain a large part of our macroscopic and microscopic experience. Determination makes possible physical objects and living beings, as well as time and space that make our freely constructed personal biography possible. Genetic heredity and the stability of species would not be possible without the rigid determination of the genetic code.

2) But the «new paradigm» insists on things that were already known from the time quantum mechanics was born in the twenties. The individual and differentiated type of «fermionic» matter that produced the world is not only real. Quantum mechanics presents a microphysical world different from the classical world (although the macroscopic-classical world is always born from the microphysical-quantum world). New and strange phenomena are confirmed in this quantum world: 1) quantum coherence; 2) quantum superposition; 3) indetermination; 4) action-at-a-distance (EPR effects).

3) Thus, the physical world is not only classical, but also quantum. It was born from the *big bang* as a field of radiation; although the differentiated objects of the mecano-classical world were produced, the physical world also contains unitary fields of matter in «holistic» states where differentiation disappears in particles; this happens in bosonic matter, and can even happen in fermionic matter, although with great difficulty. These holistic states can also interact at a distance (EPR effects). And in the microphysical world, an important role is played by an indeterministic causality —related to quantum superposition— that extends to the classical macrophysical world, which is partly indeterminate because of the effects of a chaotic, statistical, and probabilistic flow.

4) Living beings are explained not only by means of classical causality (for example, in the embryo-genetic development beginning with DNA) because life made possible, within the classical living body, the emergence of quantum states of matter that possess quantum coherence, quantum superposition, indetermination, and interaction-at-a-distance (EPR). Living beings thus appear as the coordination between the classical world (differentiation, determinism) and the quantum world (holism, indetermination). In this way, the «new paradigm» can provide a «physical support» —more intelligible than that of reductionism— to explain the phenomenological properties of animal and human psychism, like «experiential holism» and «behavioral indetermination» (freedom).

5) Especially with reference to man, neurology also explains the nature of mind as a functional complementarity between classical neural patterns (Edelman) and networks of quantum states (quantum neurology).

6) Cosmology speculates about the origin of the universe by coming up with hypotheses concerning the germinal state of matter much beyond Plank's Era. In this hypothesis fits, among other hypotheses, the strings and super-strings theory. In any case, the universe of the «new paradigm» is no longer the deterministic system of Einstein and Newton, but a

process born from the *big bang* and produced in time by the equilibrium between determination and chaotic, probabilistic, and statistical indetermination.

7) Finally, the «new paradigm» overcomes the «dogmatism» of positivist epistemology and already moves within the Popperian and post-Popperian framework. Science does not expound absolute truths, but only systems of hypotheses and conjectures about the world. Science today is more modest than in the 19th century: It is aware that the universe is an enigma, and that it should refer to philosophy the responses to certain questions that it cannot respond by means of its own methodology.

Consequently, the «new paradigm» is also monist, like reductionism. The origin of everything is matter, but it has a richer idea of matter that allows one to understand how the evolution process made possible the emergence of «different modes of being real», although produced from the ontology of matter itself. It is therefore a monistic paradigm, specifically, an «emergentist-monist» paradigm.

Nexus of the «new paradigm» with the metaphysical and religious

Atheism, agnosticism, theism, and religions (a form of theism) pertain to the metaphysical. Reductionism could hardly connect with the metaphysical, and where reductionism persists, the metaphysical remains unconnected. But the «new paradigm» offers an image of the universe, life, and man that profoundly enriches the metaphysical.

1) It makes possible a phenomenologically describable «humanistic» image of man coherent with personal and social experience. Man is not a robot, but a free and personal being that responsibly constructs his own biography. «Deterministic robotism» could not even make atheism and agnosticism possible as metaphysical positions.

2) It presents an enigmatic image of the universe, employing an epistemology that insists on the interpretative and provisional character of scientific conjectures. It thus leaves an opening for philosophical reason to construct diverse hypotheses and conjectures about the enigmatic ultimate nature of things.

3) It makes possible, without imposing, a philosophical interpretation (thus, no longer scientific) of the enigma of the universe according to an agnostic or atheistic metaphysics.

4) It also makes possible, without imposing, a philosophical interpretation according to a theistic, and thus, religious, metaphysics. It therefore allows conjectures about the existence of a «mysteric transcendent reality» or the existence of a «transcendent creator-God».

5) The proposal and discussion of various types of metaphysics (atheism, agnosticism, theism, and religions) is always referred to the previously explained «metaphysical fields»: the problems about the consistency and stability of the universe, the causes of the physical and biological orders, and the origin and nature of psychism (consciousness). Theism, for example, grounds on these «metaphysical fields» its argument about the «plausibility» of the existence of God (God as fundament, as designer, as holistic ground of the world of the psyche).

6) The holistic orientation of the «new paradigm» of science has a special importance for theism and religions. The evolution of matter produced a world of differentiated entities: it is the classical macroscopic world. But holism shows that the depth ontology of matter and of the universe is unitary and undifferentiated, responding to an ontology that makes possible the sensibility-consciousness present in animals and man. This «sensitive» holistic ontology of universe-matter undoubtedly makes more plausible the philosophical conjecture about the divine ontology as the omnipresent and ultimate ground of the universe, along the lines similar, for example, to the pan-en-theism of Arthur Peacocke.

Science as a nexus of intercommunication between metaphysics and religions

As we were saying, the profound aspiration of humanity on its way toward a better society has always been to achieve «inter-human communion» and «social unity». For this, respect for individual, metaphysical, and religious freedom is essential. A society in which some think that others are «in error» or that they should be where in fact they are not, or worse, if persons attribute to each other dishonest moral attitudes, in no way is this a society in communion or in inter-human unity. The attitude of religious groups which harshly judge atheism, or of atheistic groups which mercilessly attack everything that seems religious (as is the case with Dawkins or Dennett) is lamentable. No less lamentable is the attitude, so common in the past, of religions which harshly criticize each other and of religions that attempt to impose themselves on others.

As we have said, the «new paradigm» of science allows the creation of a series of «metanexus» which permits human respect for the freedom of each person. One learns to see metaphysical diversity not as a hindrance to, but as assuming and truly enriching «communion and existential cohesion». And in this sense we believe that the investigation of those «metanexus» which from science unite metaphysics and religions is an important and necessary contribution to a better society: one that is tolerant, open to valuing the existential richness of others, and not polemical.

But what are these «nexus of intercommunication»?

In the first place it is very important that the «new paradigm» presents with modesty the image of a metaphysically enigmatic universe, which human reason (in science and philosophy) endeavors to understand by means of hypotheses and conjectures open to critical revision. For this, a nexus of respect is created between atheism, agnosticism, theism and religions, because all understand that diverse metaphysical positions are the fruit of the free, honest and legitimate creativity of each person. Now far from aggression and disdain—and from mockery as well—communion and social unity are founded on a deep respect for the person and for freedom. This is undoubtedly a better kind of society.

In the second place, theism and religions tend to understand each other inasmuch as they all endeavor to be inspired by the image of the numinous and of the creator-God which science makes «plausible». It is the rational conjecture about God as fundament of the universe, designer of its anthropic order and holistic ground of the depth ontology of the world of the psyche.

Religious or mystical experience in diverse religions has always meant a sensation of immersion of one's «human spirit» in the higher reality of God that embraces us from the depths of the cosmos. Thus, mystical experience in the history of religions is an experience of unity with the cosmos, i.e., an experience of ontological holism with divinity and with the cosmos. Reductionism made this experience incomprehensible. But the holistic «new paradigm» of science leads us to understand that, in effect, the omnipresent ontology of God could «embrace us» from the depths of the holistic ontology of the universe. The «new paradigm» thus makes extraordinarily plausible a religious experience in which different religions converge and remain united. But we should also note that there is no reason for atheism and agnosticism to fear that the holistic image of the universe «imposes» what is strictly religious. Holism renders plausible the experience of God but does not impose it. In other words, the scientific holism spoken today in the «new paradigm» is also compatible with an atheist or agnostic interpretation.

Lastly, science permits new «nexus of connection» between traditional religions which until now have been very distant. Religions turn to science to illuminate the idea of God in their respective traditions, for the purpose of attempting to update their theologies. In doing so, the gaze of diverse traditions is unified in the image of God which science makes possible. A process of convergence, then, is produced through science which permits the identification

of «points of similarity» that unite all religions. The same happens in mystical religious experience—surprisingly common in diverse traditions—which, as we were saying, becomes extraordinarily plausible in the new holistic ontology of science. Religions learn from science that they all possess an «essential nucleus» that unites them in a powerful fashion. They also learn from science that there exists a «differential nucleus»—thus leaving each religion in its proper history and traditions, i.e., in its «small print»—which profoundly enriches other traditions. Religions may thus respect their own tradition while simultaneously being enriched by the profound knowledge of other traditions.

THE CONTRIBUTIONS WE PRESENT...

This issue of *Pensamiento* offers valuable contributions to the process of the science-religion dialogue, the general framework for which we have outlined. We have arranged its contents in such a way that the articles, studies and profiles are placed in sections which illuminate their content and interrelationship.

First, the *propaedeutic section*. The article by Poli marks the starting point: the human person, open to values and in search of his authentic existence. Modern culture put into crisis the personal value of the religious, but sociology today shows the rebirth of new communal forms of religious authenticity (Shimazono). The role of «methodological naturalism» in science is important in the crisis of the science-religion dialogue; this naturalism plays a decisive role in science, and religion needs to learn to dialogue with it (Bylica/Sagan). We believe that this is so, and that religion should admit a certain amount of mechanicism-determinism as a means to explain the universe. In this process of dialogue religion should pay attention to the manner by which science depends on logic (the mathematical, the formal) so that metaphysical arguments can be valued in various scientific communities (Leach).

We then present a *psycho-physical and cosmological section*. Lorente studies the cosmology of space-time in light of physical theories which would explain its ontology, and the references to God within those theories. M. Bejar ventures into an explanation of psychism starting from connections between the thoughts of Bohm and Penrose. Finally, López Aguilar discusses the Hameroff-Penrose hypothesis as a proposal for a «physical support» of consciousness. In one way or another, these different approaches facilitate an intensive understanding of what we have called the holistic image of the universe in the «new paradigm» of physics. Complementing this section, two commentaries on the characteristics of string theory (Leo Smolin) and on the events beyond Planck's Era (Michael Heller) are provided in «Profiles in Science and Religion».

The third is the *classical biology section*: It deals with how the explanation of life in biology presents an evolutive mechanistic-determinist dimension serving as a base from which one already glimpses an opening to the free and religious human being (Núñez de Castro y Bertrán). In the fourth section, dedicated to a *cosmo-biological synthesis*, two authors of unquestionable importance are introduced and considered: Schmitz-Moormann (Doncel), who is essential today to interpret the work of Teilhard de Chardin, and Whitehead (Monserrat). This section is complemented by two commentaries found in the Profiles: the first, on the emergentism of Clayton; and the second, on Stuart Kauffman and his reference to the quantum explanation of consciousness.

Then we proceed to the *Hindu and Buddhist philosophies section*, which permits us to follow the connections between the «new paradigm» and oriental philosophy. M. Sevilla shows the presence of materialism in Indian philosophies, and A. Gómez considers Hindu and Buddhist ontology in depth. Masiá-Kuwano show that the idea of mind-body unity is present in some aspects of Japanese philosophy and psychology. The *religious experience*

section shows the mystical experience of union with God through an experience of the cosmos: in the Christian experience of Nicholas of Cusa (Cabada), in Sufi mysticism (Gamal), and in connection with diverse religious traditions from the point of view of mystic neurology or neuro-theology (Castro). This section on the connection between mystical experience and the holistic experience of the cosmos is complemented by two commentaries in the Profiles: on the ecological thought of Rolston and the mysticism of St. Francis of Assisi.

Finally, the *complementary studies section* presents the figure of Jan Patočka (Ortega), Farah Antun (Puig), and the study of reason in Islam in light of the speech of Pope Benedict XVI (Serafin). The final study by J. Romero considers theology from the dynamic point of view of sociology, concluding with a proposal for a dynamic program that would make possible a theology dynamically adapted to the development of concepts in history.

THE 2008 METANEXUS WORLD CONFERENCE IN MADRID

The journal *Pensamiento* dedicates this issue of the special series «Science, Philosophy and Religion» (no. 242, 2008) to the concerns of Metanexus Institute, convoked in Madrid in June 2008. The Institute is concerned with finding the «meta-nexus» that permit communion and inter-human cohesion between individuals, groups, cultures, ideologies, metaphysics and religions, both within nations and in the international forum. It is also concerned with contributing to the nexus that make a better world.

Knowing and spreading these «meta-nexus» is essential for possible ways of building human intercommunication through a transdisciplinary, multi-metaphysical and inter-confessional dialogue. We have said that science is assuming today an emerging role with regard to social cohesion. Today, to look to science is to shed light on one's own traditions and, at the same time, to cultivate knowledge and respect for other traditions, metaphysics and religions.

All metaphysical traditions and religions should consider what is the core of their beliefs which unite and shed light upon the other traditions. We do not see God. Metaphysics and religions live within the enigma of the universe, and each person lives courageously the hard experience of life, of suffering, and the final orientation toward death (as Heidegger would say), maintaining with integrity one's personal fidelity to a metaphysical or religious tradition. From my point of view, when Christianity today looks at science from the perspective of its own tradition, it should dynamically reformulate the essence of its theology, saying that our belief in the revelation of God, given in the Mystery of the Death and Resurrection of Christ, is the word of God that exhorts us to trust in the reality of a *Deus absconditus* who creates an autonomous world, making our freedom possible, and in the reality of a *Deus liberator* who saves within the context of the transcendent history—personal and collective—of all people and human traditions.

Our journal *Pensamiento* invites everyone to commit themselves and to participate—from transdisciplinary, multi-metaphysical and interconfessional perspectives—in the task of looking at science in order to immerse oneself in the «new paradigm», in order to shed light from there on one's own traditions and to communicate to others in an enriching manner the essence of one's metaphysical and religious traditions. Without doubt, this will create among everyone appreciation, admiration, respect, tolerance and above all, mutual edification.

JAVIER MONSERRAT
Director of *Pensamiento*