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Some Reflections on the Influence and Role of Scientific Thought in the Context of the New Evangelization

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Abstract In this paper, after discussing how scientific culture shapes the way of thinking of great part of contemporary society, I briefly investigate the relationship between science and non-believing, showing that the latter cannot be presented as a direct consequence of the former. Rather, this is an ideologically-clothed popularization of science, which presents scientific culture as opposed to Christian faith. In order to evangelize a society that is highly shaped by the rationality of science, when addressing the relationship between faith/theology and science, a number of *clichés* must be overcome. At the same time, however, specific and positive aspects of scientific culture, mainly the humanistic and spiritual dimensions associated with research work, have to be highlighted. In order to foster a New Evangelization in the world of science, I suggest developing five leading ideas on the nature of scientific activity as such, and I single out four proposed tasks for scientists that are also believers and for pastors and theologians.

Science, Secularization and New Evangelization

Countering the general disengagement trend of postmodernist thought, scientists are seen by the Catholic Church as learned interlocutors, who embody specific rational needs, despite being rightly or wrongly associated with agnostic or atheistic ideas. I believe that within the 'New Evangelization' task set by the Catholic Church at the beginning of the third millennium, the encounter with scientific culture is to be seen not only as a challenge, but also, and even more, as a significant *opportunity*.

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There are some knots which have to be untied. Firstly, we have to make it clear that scientific culture cannot be hastily associated with atheistic or agnostic thought. Such an association, which is amplified by the media, has an ideological origin. This can be shown both within a theoretical framework, by examining the relationship between faith and reason historically forged by Christianity, and within a phenomenological-existential context, by turning to the history of scientific thought and to several scientists' biographical profiles.

The second critical knot concerns the relationship between scientific culture, technological progress and secularization, taking the latter to be a positive hurdle to the spread of the Gospel and to be synonymous with materialism. As the theologian Jean Danielou put it years ago: "If secularization is tantamount to the gradual disappearance of a more or less mythical view of the universe, where scientific advances teach us to make a distinction between primary and secondary causes, then I would say that in this case secularization is a merit of modern culture. In that sense, it is by all means clear that none of us can deny that secularization is a wonderful achievement. It would be absurd to even attempt to oppose science simply because it replaces some mythical representations or certain magic rituals. If, though, secularization is interpreted as meaning that from now on the scientific way of accessing knowledge would become the only kind of knowledge, thereby implying the end of metaphysics and the beginning of the dictatorship of the sciences, then I would say that this would amount to a frightening cultural regression. The universe may well be the object of scientific knowledge and at the same time continue to be the starting point of metaphysical knowledge; in other words, it may well lead us to know something different from its own sheer phenomenological laws." As a commonplace of a number of theological analyses, the inevitable association of science with secularization is all too often taken for granted on the basis of a view of science and technology which, since Max Weber and, later, Martin Heidegger, has influenced sociological and philosophical thought, engendering a view that in Jean-François Lyotard has by now turned into a set phrase: "I define postmodern as incredulity toward metanarratives. This incredulity is undoubtedly a product of progress in the sciences: but that progress in turn presupposes it."²

Typically, to back up the above argument, reference is made to some influential figures of 18th-century Enlightenment and of 19th-century materialism. Considering scientific progress a cause of disbelief and a driver of secularization has thus become a view that is easily supported by most authors: initially referred to as *deviations* from a scientific mind-frame, secularization and materialism end up tragically turning into synonyms of 'scientific mind-frame,' or sometimes even of 'scientific method.' This generates a way of thinking that in many cases gets to

¹Danielou (1972).

²J.-F. Lyotard, *The postmodern condition: a report on knowledge*, translation from the French by G. Bennington and B. Massumi; foreword by F. Jameson (Manchester: Manchester University Press, 1994), xxiv. Original French edition: *La condition postmoderne* (1979), Italian translation: La *condizione postmoderna*. *Rapporto sul sapere* (Milano: Feltrinelli, 1991), 6.

influence the theoretical and cultural contexts within which Pastors are to discuss the relationship between science, society and the Church.

Such a state of affairs is particularly harmful both for theology and for Christian faith, being unable to intelligently consider (*intus legere*) science's endeavor, which gets pushed to one side as a liability and is not seen, as it should, as an asset in the balance sheet of the field forces working for a new evangelization. The very position of the Magisterium of the Catholic vis-à-vis science is perceived by public opinion above all in terms of cautious watchfulness vis-à-vis technological, more specifically bio-technological, applications. This position is usually associated to a renewed self-criticism regarding certain historical events of the past, which would periodically be remembered to state that the circumstances which resulted in those mistakes are no longer applicable. Although the reflections of the Magisterium of the Church on sciences and technological-scientific activities are more substantial and complex, in general public opinion moves along different lines, almost exclusively underlining defensive attitudes or those favoring a peaceful and definite separation.

A reflection on the advancement of a new evangelization effort targeted at scientific culture in turn calls for a reflection on the roots of the predominant negative view of science. Is it only a matter of communication strategies, or is the relationship between Christian faith and scientific thought mediated, and sometimes filtered, by prejudices affecting their mutual dialogue not only within public debate but also in the context of theology and of the Church? Scientific work and its outcomes, we should bear in mind, are popularized by the media, swinging the image of science between triumphalism and catastrophism, presenting it either as a solution for all the problems of humankind or as a cause of imminent self-destruction. This kind of mediations and prejudices may have negative impacts on an underequipped theology and on deficient religious teaching, generating uncertainties which sometimes creep into ecclesial reflection or into pastoral planning documents. Even though, on the one hand, an in-depth knowledge of a culture is always the first step towards the inculturation of faith into new peoples and contexts, on the other hand, the evangelization of scientific culture cannot ignore regaining a sufficient familiarity with the language and the contents of sciences. The Catholic faithful active in the scientific environment certainly are familiar with such a language and contents, but pastors and theologians tasked with orienteering and serving its action do not seem to be.

The Influence of Scientific Culture on the Proclamation of the Gospel

When discussing evangelization and inculturation of faith in relation to the technical-scientific context, we are not referring to a cultural *élite* or to a niche of experts to whom we talk about God resorting to intellectual parameters which may

not even interest the majority of the community. Rather, in keeping with some well-known reference points in the Second Vatican Council documents,³ the task in question involves wide strata of contemporary society to whom the twenty-first century Catholic Church wishes to restart proclaiming the mystery of Jesus Christ, crucified and risen, as the center of the universe and of history⁴—universe and history as visible to anyone and nowadays mostly judged through scientific categories, ones that evangelization cannot overlook. So, let us look at some aspects of the influence that scientific culture exerts on Gospel propagation.

First of all, in the countries of the globalized world scientific knowledge nowadays represents the implicit cultural context for any parties involved in a dialogue. Whether they are scientists or not, the recipients of Gospel's proclamation have got a *forma mentis* [a 'frame of mind']—this is the phrase used by *Gaudium et spes*, n. 5—that is significantly shaped by the achievements of the sciences. The latter are held to be an authoritative source of knowledge, often the most authoritative one; scientists and researchers are well-received by the general public even when they talk about social and moral issues. Scientific thought provides an ever higher number of people with a reference framework to evaluate statements, situations and events. On social networks it is not rare to see that the most widespread non-believing opinion is precisely that religion—particularly Christian religion—would no longer hold, especially when confronted with the new knowledge afforded by the sciences.

Secondly, there are several achievements of contemporary scientific research which call on Christian theology to elaborate new and sound syntheses between faith and reason. Nowadays, a number of teachings drawn from biblical Revelation need to be presented through a compelling hermeneutics suited for those who are familiar with the context of the natural sciences, of psychology and history. This calls for an in-depth analysis which theology or catechesis did not require right up to a few decades ago. Think, for instance, of the timeframe going from the appearance of *Homo sapiens* on the earth right down to the rise of the earliest oral traditions collected in the biblical narratives of the origins, including those concerning the primeval revelation and the original moral fall. Think of the morphogenetic and phylogenetic place of human beings within the extended evolution of life on our planet, also in relation to what caused that evolution; think of the possibility of providing a scientific description of many aspects traditionally associated with a human being's spiritual life, such as emotions, feelings and the neuro-physiological dimensions of free will; think also of the huge space-time cosmic scenarios in which we now know our tiny planet to be located, forcing us to change radically the categories of human history, up to make it plausible for life (and intelligent life as well) to be present in contexts other than the planet Earth. And also think of the questions posed by Christian eschatology concerning the link between history of the universe and history of salvation. Finally, in the longer term,

³Cf. Vatican Council II, Gaudium et spes, nn. 5, 33.

⁴Cf. John Paul II, Redemptor hominis, March 4, 1979, n. 1.

one ought to consider the possibility—no longer that remote—of synthetizing living organisms in a laboratory, along with the trans-humanist thinkers' push to act on the evolution of the human species, with changes breaking with the past and opening up completely unprecedented scenarios. For many of these questions theological and philosophical thinking can take—and is actually already taking—some viable paths; however, these scenarios must not be set aside as futuristic fruits of the imagination, simply because theologians do not know their language or implications. The time and ways these issues are to find their place in the theologian's schedule will depend on many factors, but clearly, sooner or later, given the scientific culture we are now moving in, they will inevitably have to be tackled.

A third aspect of how science culture impinges on evangelization consists in the way scientific applications have changed and continue to change the life of individuals and society. It is apparent to all that the relationships between human beings, but also the labor world and market, the education of the new generations and our relationship with things have deeply changed as a result of the information technology revolution, of he wide-spread virtual reality operating context, and of the new opportunities offered by global communication. The newly arising context will also necessarily impact on the way human beings understand themselves and the meaning of their relationships with others, affecting their intellectual, emotional and relational spheres. The applications of sciences that are changing our way of living include the new biomedical and biotechnological applications, as well as robotics, domotics and the gradual integration between human functions and operations entrusted to machines. Even though the way of looking at these new contexts aims to highlight the underlying ethical issues, one should not forget that this transformation first entails a new relationship between the human beings, their potentialities and expectations. The Gospel message, therefore, has to deal with what man can expect of technology, what could he trust and entrust to it—all aspects now closely related to human happiness and aspirations, as well as to how to live and die.

Views of Science Around the 2012 Synod on the New Evangelization and Pope Francis 2013 Document *Evangelii Gaudium*

In order to better evaluate the role scientific culture may play in the context of a New Evangelization, it is instructive to look back at what happened a few years ago on the occasion of the 2012 Synod of Catholic Bishops devoted to the New Evangelization for the transmission of the Christian faith. Actually, technical-scientific research was one of the six sectors mentioned by that Synod and proposed for reflection to the general Assembly. In a document issued to help Bishops prepare their talks we read the following statement: "The fifth sector is scientific and technological research. We are living at a moment when people still marvel at the wonders resulting from

continual advances in scientific and technological research. All of us experience the benefits of this progress in our daily lives, benefits on which we are becoming increasingly dependent. As a result, science and technology are in danger of becoming today's new idols. In a digitalized and globalized world, science can easily be considered a new religion, to which we turn with questions concerning truth and meaning, even though we know that the responses provided are only partial and not totally satisfying. New forms of 'gnosis' are emerging where technology itself becomes a kind of philosophy in which knowledge and meaning are derived from an unreal structuring of life. These new cults, increasing each day, ultimately end up by turning religious practice into a clinical form of seeking prosperity and instant gratification."⁵

The scenario outlined here mainly refers to the influence that scientific thought exerts on contemporary society's way of thinking and living, especially because of the images of science portrayed by the mass media and in public debate. This preliminary document expressed the concern that science could be raised to a new religion by the imposition of its method of acquiring knowledge on other areas of reality and by the allure of materialistic models due to the excessive trust widely put in technical capability.

Speaking of science pointing out the deviations of scientism or warning about the dangers arising from technology neglecting the good of man, ultimately expresses understandable concerns. However, in my opinion, this could end up by endorsing a view of scientific activities tending to set a dialectic opposition between science and ethics, science and wisdom, science and religion. Christian faith would then be tasked with reminding science about its limitations, its shortcomings, and its ever-present risk of rising to a criterion of interpretation and judgment of the whole of reality. Underlying such concerns is undoubtedly a legitimate point of view. Yet, if this perspective were not completed by looking at science from other angles, that view would not integrate all dimensions of scientific activity, for instance as they were highlighted by both the Second Vatican Council, and more recently by the teachings of John Paul II and of Benedict XVI, the latter being less extensive but equally profound. Scientific achievement—as the Magisterium of the Church has repeatedly stated—is indeed an achievement of truth, positively contributing to learning about the cosmos and man's own role within it, with doubtless potential for serving humankind and the quality of its life on earth. Science possesses significant humanistic dimensions which qualify it as a value in itself, namely a spiritual value.

In fact, as early as the middle of the 20th century, top scholars have demonstrated how science remains 'open' to its philosophical foundations; science is not a closed, self-referential kind of knowledge—and, in this sense, true science cannot become an ideology. It presupposes not only logics, but also ontology and a philosophy of nature. Moreover, authors such as Wittgenstein, Gödel, Tarski or Turing have demonstrated that the need for logical and ontological foundations is perceived 'from within' the formal language of science. Scientific reason 'extends'

⁵Secretary of The Synod for the New Evangelization, 2012, *Lineamenta*, n. 6.

itself to the point of requiring the introduction of typically philosophical notions within the horizons of science. These new openings prove some degree of convergence with what the magisterium of Benedict XVI has repeatedly emphasized regarding the urgency of a 'widening reason.' In this sense the sciences seem to offer noteworthy opportunities, thanks to their rigorous and demonstrative nature. This is an occasion, a sign of the times, which should not be overlooked.

After the work of the 2012 Synod, on November 24, 2013, Pope Francis issued a document entitled *Evangelii gaudium*. Although the Holy Father refers to some of the propositions approved in that Synod, he develops his own thought in quite a personal fashion. One of the passages of most interest for science is perhaps the following: "Proclaiming the Gospel message to different cultures also involves proclaiming it to professional, scientific and academic circles. This means an encounter between faith, reason and the sciences with a view to developing new approaches and arguments on the issue of credibility, a creative apologetics, which would encourage greater openness to the Gospel on the part of all. When certain categories of reason and the sciences are taken up into the proclamation of the message, these categories then become tools of evangelization; water is changed into wine. Whatever is taken up is not just redeemed, but becomes an instrument of the Spirit for enlightening and renewing the world."

According to Pope Francis' remark, scientific categories and insights can become (I would say must become) a tool for evangelizing, thereby turning the water of science into the wine of truth, the only and one truth to which faith and reason together belong. In this paper I would offer some suggestions along these lines, reflecting upon what positive role scientific culture could play in a new evangelization. I wish to underline that science cannot be considered as a source of trouble for faith or for the Church, but rather as an ally and a fascinating partner. In a word, scientific culture is a sector of the present century's life offering the Church important opportunities.

Some Suggestions for Scientists and Theologians

When we speak of a New Evangelization, we should remember that the subject entrusted to evangelize scientific culture is not only the Church through her pastoral documents or the events she organizes in a somewhat institutional way. The subject able to proclaim the Gospel to a scientific environment is any Christian faithful who acts and works in the scientific world. Contrary to what the mass media perceive and spread, the number of believers, including Catholics, working in the field of scientific research is meaningful. However, believing scientists need the support of pastors and the necessary assistance of philosophers and theologians to reach a synthesis between faith and reason, a synthesis that often remains difficult to

⁶Pope Francis, Evangelii gaudium, November 24, 2013, n. 132.

achieve to them, especially due to the lack of a philosophical and theological training.

In order to overcome a neutral and instrumental view of science and to promote a view of scientific culture capable of joining in the Church's task for a new evangelization, I suggest taking into account and developing the ideas listed below.

In the first place, we should remember that scientific enterprise participates in the human journey toward the truth. Albeit within the boundaries proper to its own method, science perceives some light of the presence of the Logos, by whom and through whom all things were made. When properly presented, the emphasis on a bond linking scientific enterprise with truth operates an important countertrend to relativism and indifferentism: nature is worthy of being studied, it is a source of beauty and meaning; it exerts an appeal towards the search for truth.

Scientific enterprise reveals and increases human dignity; science is not an impersonal and purely objective activity: it is a value in itself. Science is a body of knowledge worthy of being taught and transmitted, an important source of education and training also in spiritual values. Man has an undeniable vocation to the unity of knowledge; science plays an important role in achieving such a unity. Without a convincing synthesis between reason and faith, between what I study on nature and what I believe about nature, the evangelization of learned men and scholars would be impossible, or would only remain superficial.

In the second place, we should emphasize that science has a tremendous capacity for the achievement of the common good and for the development of peoples. Scientists, precisely because they know more, should serve more. When talking of science or technology, we should not just remember the risks of biology, biotechnology, or nuclear physics, but we also have to mention the enormous potential science and technology have for the common good, thus balancing sometimes catastrophic visions transmitted by the media or present in public debate.

It is also important, in my opinion, to overcome some common *clichés*, often used to express the relationship between the 'reading' of material reality provided by science, and the 'reading' of the created world provided by Christian revelation. Too strong a separation between these two 'readings,' the scientific and theological ones (NOMA, that is, Non Overlapping MAgisteria perspective), could be misleading, because it would confine the latter within the context of myth, or would only see the theological content of the Bible as a totally subjective account. This attitude could end up enhancing an already widespread fideism, especially among scientific researchers who are also believing scientists. At the same time, naïf concordism or attempts to seek a foundation or a 'demonstration' of faith in science should be avoided too. However, while *concordism* is certainly to be avoided, the existence of *consonance* and harmony between faith and science perspectives must also be affirmed.

When promoting the evangelization of scientific culture, it is important to remember the positive historical role played by Christian theology, creation theology in particular, for the birth and development of the scientific method in the Western culture. The unreliability of those judgments charging the Church with having hampered the development of science must be defended and clarified. In

relation to that, some questions associated with the Galileo affair and the legacy of Giordano Bruno must be properly explained. These are two issues to which men of science are particularly sensitive and which are often exploited for ideological purposes, causing a major obstacle to the spread of the Gospel; and this is also because of some historical and epistemological ignorance shared by the general public. Today, the position of the Catholic Church regarding the beginning of human life and her denial to manipulate human embryos must also be thoroughly explained and grounded, since the general public erroneously considers as scientific activity what actually belongs to market or economic strategies.

Finally, here are some suggestions for scientists who are also believers, for pastors and theologians. I think that the New Evangelization in the context of scientific culture may largely depend on how we succeed in putting them into practice.

In proclaiming the Gospel, the example of people who were sincere men and women of faith and good scientists must often be mentioned and highlighted. There are many suggestive historical examples in this respect. There is no shortage of testimonies, but they must be made known to faithful Catholics and to the public at large.

Catholic scientists should not limit themselves to 'being present' in the world of science, but they are also called on to 'evangelize scientific research' from within, steering it towards truth and goodness. To this end, Catholic scientists are encouraged to sincerely seek the unity of knowledge, by gaining greater insights into those aspects of their faith that have a major relationship with their scientific research, thus achieving a higher synthesis between faith and reason. The first and most important evangelizers in the technical-scientific environment are not pastors, nor theologians, but the lay faithful that are professionally active in scientific research and in those places where this culture is forged.

On their side, Pastors must prepare themselves to proclaim the Gospel in a contemporary society which is highly influenced by the rationality of science. It is hoped that in the future the institutional studies training pastors for the priesthood and beyond will pay greater attention to scientific results and to scientific thought in general. This is especially necessary in those geographic areas particularly involved in the task of a new evangelization, where scientific culture has become part of the way of thinking and judging of a very broad range of people.

Finally, theologians' interest for science is very welcomed. In dialoging with science, theologians are not only invited to study the compatibility between scientific results and biblical Revelation, but also to make use of proven scientific knowledge as an aid to better understand the Word of God. In this way the proclamation of the Word will become more profound and meditated and, therefore, more effective and helpful.

The above-listed suggestions are certainly demanding. Yet, they are all mentioned and contained, in a seminal fashion, in the exhortations of the Second Vatican Council, and they have all been personally exemplified by qualified actors all along the history of theology and of the Church. The value of scientific enterprise and the role it plays in the progress of humankind, in the search for truth and for the good, cannot be underestimated. Aware of that Pastors and theologians are

called to help scientists, believers or non-believers, to discover the dignity of the role they play in society and in the Church. This was well grasped by one of the sharpest commentators of *Gaudium et spes*, Henri de Lubac, who exhorted modern apostles as follows: "They should not be led, through fear of the consequences drawn by atheism, to depreciate science or to curse technology; rather, they should not link them with a denial of faith they do not entail at all. Let them prove true friends of those who may have been misguided on the way; let them, then, offer them a hand and invite them to continue along the way together, till the end, when new light will shine on both of them."

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⁷De Lubac (1985).