

What is our Agenda in the Faith/Science Area

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Since the appearance of the so-called modern sciences their relation with religion has often been troublesome. Since many volumes and articles have been written to describe and explain this, we do not need to repeat that discussion here. For our purpose it is sufficient to recall that the struggle by the natural sciences for their autonomy ended with their hegemony. As a sign of the latter, one of Laplace's statements to Napoleon (perhaps apocryphal) is often quoted: "Sire, I did not need that hypothesis (i.e., God)." In some two hundred years God had become "marginalized".

Today's rapidly increasing secularization is often interpreted as the natural outcome of the process initiated by the birth of the natural sciences. It is as if people are only now fully recognizing the consequences of Laplace's statement. If this is indeed the case, then the Post-Laplacian research should only have confirmed the tendency he formulated: the world around us can be understood (and our lives can be lived) without a God. Of course, many of the promises from science have not yet been realized but they will be realized in the near future. In principle, a Laplacian world the (natural) sciences provide us the only acceptable explanation of our world and sufficient tools to cope with it.

In this paper I will raise some question about this obvious conclusion. My argumentation will be coloured by the situation in which it is written, namely The Netherlands. However, in the Dutch situation some aspects might be more clearly visible than they are in other countries. In my opinion, however, the Dutch scene is typical, at least of the western world. Events now occurring in the countries in Eastern Europe seem to confirm this assumption.

The scene of the confrontation has profoundly changed.

From historical correlation suggested above between the secularization of religion and the success of the natural sciences, one might expect a continuous decline of religious belief as time (and science) progresses. In particular, one might expect that atheism will be more widespread among scientists than in other groups of the society. This, of course, is an historical simplification. It excludes other factors which might have occurred in the same period and might have had a significant influence on the religious attitude of people. Nevertheless, our intuition is that with this restriction the present thesis should be valid.

From the Dutch situation, however, one gets a different impression. All the scientific progress notwithstanding, one notices in 1992 that a very large portion of the Dutch scientists still has a religious background. I like to stress "background" because one's impression is that a majority of them no longer practice their faith. Or, to state it differently, the speed of secularization has rapidly increased during the last four decades. This applies to several other groups in the Dutch society as well, and it is not restricted to particular churches. One might see this as a delayed "Laplacian effect." This suggestion is difficult to refute, but there are some arguments against it. The major counter-argument is that it presupposes that the developments in the sciences since Laplace still confirm his extrapolation that we live in a closed, deterministic and predictable universe. We will come back to this later.

Another question to be raised is why the secularization has increased so rapidly since the 1950s. One can hardly expect that the scientific achievements before, during and directly after World War II would receive a standing ovation!

The suggested correlation between secularization and scientific progress also assumes that the nature of the two partners remained constant during the interactive process. Sociologically considered, this is highly unlikely. In fact, both partners have changed quite considerably in this period.

A lot has happened in science since Laplace's time. Science, as he knew it, was firmly based on a mechanistic picture of the world, despite Newton's return to the Middle Ages with his introduction of "force at a distance". In that picture the world is taken to be a "mathematically describable machine". As a contingent complex of

simple, independent elements, a machine can be divided into parts to be studied separately and then put back together. The formulation of quantum mechanics has shown this approach to be questionable. Quantum mechanics shows that the idea of the existence of independent elements, and that of exact predictability, is only approximately correct.

Relativity theory has contributed as well to the scenery change within physics. The elements of the clockwork model prove to be no absolute entities. Their properties depend on their context; on their relation to the observer. Despite these revolutionary developments, the old model of the world as a clock has prevailed and still prevails. Serious objections from biology (not to speak about other sciences) against the reducibility of organisms to their parts, led to the formulation of an alternative approach, namely, system theory. But it did not take long before system theory in its turn became incorporated in a revised “mechanistic” endeavour. Recently, we witnessed the birth of so-called “chaos theory.” That made it clear that even an ordinary classical physical system can behave unpredictably. This should have put the final nail in the coffin of the Laplacian ideal. So far, however, there is scant evidence that this has indeed happened. Apparently, the attraction of this simple model is too great to be abandoned even in face of such formidable counter evidence.

One notices similar developments elsewhere. For example, in psychology the comparable approach of the human (and animal) organism has been either a physico-chemical study of its (dissected) body, or a behaviouristic study of its behaviour. It was not even permitted for a person to refer to a human mind. Much research and experience since 1956 has changed this situation. Areas such as cognitive psychology have become quite decent disciplines. Nonetheless, in the same time frame we have witnessed the birth of artificial intelligence, an effort again to reduce the mind to a machine, albeit a very sophisticated one.

These two examples demonstrate that in the ages since Laplace the mathematical analyses of, and experiments with, our world have made substantial and impressive progress. Simultaneously Laplace’s picture has proven to be incorrect. There is no way for us to predict future developments except for very simple artificial systems. So, one must conclude that the science side of the science-religion dichotomy has changed profoundly. Moreover, sciences have transformed not only our thinking about the world but our living in the world as well. Before I go into this I want to consider the other side, the religions/theologies side of our topic.

The developments in religions and in their theologies have been dramatic as well. At first, their attitude was not that different from that of the natural sciences. One hardly could have expected otherwise because the sciences had their origin in the whole body of knowledge and intellectual methods dominated by theology. The sciences slowly developed their own experimental methods and mathematical techniques. These methods and techniques cannot be imitated by any theology and religion. This can be seen in the difficulty in coping with the application of such methods to sociological and psychological problems. But in the beginning of the “modern” period the overall attitude was not that different.

Theology, for example, also at times looked for its laws in sometimes overtly Newtonian terminology. Theological terminology and problems demonstrate this clearly as well. Here one should think about questions of God’s omniscience, about what God could or could not do. The solution proposed often incorporated the same mentality found among physicists of the day.

In fact, this attitude proved to be catastrophic. If one reads the books of the bible in the same way that one has learned to read the book of nature, not much will be learned, if anything. Of course, biblical texts also deal with facts, original expressions translated into linguistic utterances. But finding them requires a different methodology. Religions/theologies had to (re-)learn that human statements are always embedded in a cultural context. Every understanding requires an interpretation.

Therefore, the original experiences linguistically expressed are only tentatively accessible to “outsiders.” The more removed the temporal and cultural situation is from the original experience, the harder it is to understand

that experience. When theologians became aware that hermeneutics had to be applied not only to the scriptures, texts of an ancient oriental culture, but to western theological thinking of the past, they began to realize that profound changes had to be made not only in theological doctrines, but also in religious practice.

When one realizes how much each of the antagonists had changed, it becomes clear that the original opposition has lost much of its ground. Science has had to give up the pretense of being able to give a complete explanation of our world. Even more since World War II, scientists have become increasingly aware that they need support from other sides as well. Ethical problems, for example those clustered around the atomic bomb, illustrate this. Religion too has had to realize that it has lost ground. It too has restrictions: in our case its domain is basically limited to interpretation. It can provide meaning of one's world, but it cannot provide a complete explanation for it. The appearance of mutual modesty, at least in principle, might perplex our reader. Because, if one takes this seriously then it will be hard to defend a direct relation between the success of the sciences and the increase of secularization.

On the other hand, changes in positions make it easier to understand the recent upsurge in encounters between theology/religion and the natural sciences. The FEST group in Heidelberg, Atomium in The Netherlands, IT-EST in the USA have been active for about 25 years. ESSSAT (European Society for the Study of Science and Technology) is relatively new. These meetings and conferences demonstrate a change of climate. That statement does not imply that their occurrence is something obvious. If each side has redesigned its territory so that it no longer overlaps with that of the other, why should these encounters be something more than friendly parties with good neighbours?

The purpose of these meetings, however, are far more serious. That poses the question: Why do scientists talk with theologians, or vice versa. Can they actually learn something from each other? For our purposes here we can leave such topics aside. Instead we should concentrate on the fact that the analysis just presented questions the increase of secularization. If scientists know their field, they realize their restrictions. How then can the upsurge of science lead to an increased secularization? One gets the impression that the solution to our question is farther away than ever. Moreover, why do we witness such a rapid increase in secularization?

The Laplacian ideology lives on

My own suggestion for an answer to that question would be that, although the developments in science no longer support the Laplacian idea, the ideology behind it is still as active as ever. How could this be the case? In my opinion, this is because Laplace's original idea has become embedded in our mentality. It has a double foothold. The first and most obvious way occurs via technique (i.e., technology). The success of the sciences, in particular the natural sciences, would have been impossible without the remarkable development of technique. The interaction between the two has become so strong that, in many disciplines, it is no longer possible even to distinguish between pure science and technique. In my opinion, the impressive performances of these techniques have confirmed the idea that we can "make" a world, that it is humanly re-creatable. We are convinced that our problems can be solved, no matter what they are. This corresponds exactly to the background of Laplace's remark. We are masters of our existence; everything is soluble. We approach not only energy problems but infertility ones as well in this way. There is not limit to our power to solve problems. So we seem to think.

The same engineering approach has not remained restricted to so-called technical problems. It has become incorporated in completely different ways as well, for example, in ideas about the social dimension of our lives. Social engineering has become normal practice. Hardly any solution to a problem is decided upon by a government without a scientific advisory committee. This does not mean that the government acts accordingly, but it highlights the background idea that all social difficulties can be reformulated as soluble social problems. The smooth acceptance of expert systems in such social domains as law and social security exemplifies this attitude. Moreover, as a contingent "machine", society is seen reductively as a collection of autonomous elements, a mere aggregate of individuals.

Consequently, as members of our western societies we have become convinced that our living world is Laplacian. Our world (and our lives) is exactly describable, thus all its difficulties are in principle soluble. Therefore, we have become self-sufficient. There is no need for any “escape routes,” including religious ones. Again, this attitude is not based on facts; it is a conviction; it is really an assumption. It is, I think so prevalent because of our present mentality and of the impressive performances by technique and social engineering.

Especially since the second world war our ability to manipulate the world and parts of our own existence has increased dramatically. Nuclear energy and molecular engineering are spectacular examples of human knowledge and power. They are examples also of the risks involved in our technical efforts. Although the negative consequences have become more apparent, they have not yet led to a diminution in our admiration for our abilities – except in some groups. Quite the opposite, pushed by industries and by governments anxious over their economic perspectives, science and technique have a more central position than ever before.

How to act from here?

What can we conclude from this analysis? Certainly, there is no reason to reject the products of technologies and social engineering. They can and will be very helpful to liberate us to become free and independent persons and to create healthy societies. What should be called into question is the pretension of omnipotence, just as we have rejected our notions of the omniscience of our scientific knowledge. The development of modern physics and mathematics has taught us that we can understand our physical world only to a certain extent. The same applies to our practice. Although technologies and social engineering will be powerful tools, they cannot solve all the troubles we run into during our life.

What are the consequences of this analysis for our original question? As long as the idea prevails that we are complete masters of our existence, there will be no change in the increasing marginalization of God. In my opinion the claim of omnipotence lies at the root of this phenomenon. However, it would be an illusion to expect that the process of a marginalization of God would stop with an awareness of the fundamental restrictions of our powers. The better our technique becomes, and the better our societies function, the less people will realize their limitations. In that respect, there is nothing new under the sun.

We are continuously inclined to put God’s reign outside our world because we fail to recognize it within our world. The story of the Jewish people, as told in the holy scriptures, repeats that message again and again. Nonetheless, a realization of the falsehood of our omnipotence-claim will make an experience of God possible. So, in my opinion, there is a crucial difference between our ability to do a lot, and the attitude that we can do everything. The closure of our living world excludes any experience of God, a principal openness of our existence makes that experience possible.

So, I would like to stress that it is not the actual state of affairs which seems to block an experience of God, but the ideological pretensions behind it. We will have no illusions about the difficulties we are facing if we realize the limitations of our intellectual and practical powers. Since the end of the Middle Ages so much has become known and so much has become possible that it has become much harder to experience God in and through the phenomena of our world. The layer of autonomously explainable and soluble things has become very, very many times thicker. This may hinder the experience of their relativity.

On the other hand, the impressive scientific and technological results so far achieved might also bring about wonderment and thereby ease the way for us to experience God – just as the wonders of nature inspired the psalmist. The most obvious way for this experience is through a realization of the greatness of God’s works coming about not only by natural evolution but even more by our own efforts.

And about the agenda?

Encounters between science and religion (including theologies) should promote an awareness of the real grounds each of the old antagonists can cover. That could make us realize that we can't play God. So, these meetings can help to create openness for, and not hinder, an experience of God.

NOTES:

1. Rudwick states that the outcome of a serious controversy does not come down to one person winning (i.e., being right) and one losing (i.e., being wrong). During the dispute both sides continuously change position. Thus, the final outcome (the truth) lies somewhere between the two original positions. One side may think it has won because it does not understand the changes in position that occurred in the dispute. This applies to our case as well. *The Great Devonian Controversy*, Chicago: University of Chicago Press, 1985.
2. Dijksterhuis has coined this terminology to emphasize the fact that here mathematics and mechanics are combined. *De mechanisering van het wereldbeeld*, Amsterdam: Meulenhoff, 1950. An English translation exists.
3. P. Schoonenberg, *De geest, het woord en de zoon*, Averbode: Altiora, 1991; in particular p. 102ff. An English translation is in preparation.