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On Relations between Science and Religion[1]

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ABSTRACT: This article proposes an alternative way of looking at religion to that proposed by Mahner and Bunge, and challenges a claim they make about a presupposition of science. From the alternative perspective there are constructive tensions rather than incompatibilities between science and religion. The article concludes with a proposed set of criteria to be used in critical reflections on faiths, religious or secular. It suggests that education would be enhanced by introducing students to the reflections and dialogues where these criteria are applicable.

My differences with Mahner & Bunge (M&B) on the alleged incompatibility of science and religion are profound. They spring not so much from the details of their argument[2] as from the characterizations of religion and science that frame it. My response, therefore, will be to sketch an alternative framework, one in which a constructive dialogue between science and religion can take place. Specifically, I will *sketch* arguments that address the following:(1) that M&B's account rests on an inadequate phenomenology of religion; (2) that a particular 'metaphysical presupposition of science' that they identify has the same status with respect to confirmation and testability as certain religious beliefs; (3) that this is not really a presupposition of science; (4) another way of looking at religious faith; (5) that there can be constructive tensions, rather than incompatibilities, between science and religion; and (6) the appropriate criteria for critical reflection on faiths, religious or secular.

1.

When evaluating interpretive analyses in the social science *one* key criterion to deploy is that the persons whose behavior or culture is being interpreted can recognize themselves – their motivations, their beliefs, their activities, their institutions, their relationships, their modes of interaction – in the proffered interpretation, though not necessarily that they agree with it (Lacey 1991). M&B's interpretations of religion[3] generally do not meet this criterion. I, for one, do not recognize my own religious faith and practice in their account. Specifically, the form of religion articulated, mainly in Latin America, by liberation theology falls outside of many of M&B's generalizations.

Counter instances of this kind provide an entry point for critical dialogue with M&B's contribution. It is not clear that they would agree. They treat some other proposed counter examples, e.g., 'liberal' accounts of religion,

as somehow religiously inauthentic, and they may do the same with mine. The problem is that M&B's generalizations are insensitive to the variegation of religious phenomena and to the fact that what counts as authentically religious is contested. Thus, they do not address the 'liberal religious' *arguments* for the compatibility of religion and science. They are supremely confident of post-Enlightenment views of religion, that all religious phenomena can be explained 'scientifically' by reference to sociological, biological, psychological, and historical laws. If this is so, then indeed it suffices to explain in such terms why certain religious beliefs are held, for any argument offered on their behalf will only be a rationalization.

The program of the scientific study of religion has a clear rationale, and we can all learn from its successes and failures. At present, however, for most religious phenomena there are available only speculative sketches of possible explanations. Scientific understanding of religion has not reached the point where the close contact with religious phenomena, needed to gain adequate interpretive understanding, can be left aside. Nor does any well-confirmed scientific understanding support the view that religion contains no progressive potential for addressing 'the unprecedented social, economic, environmental, and moral problems of our world' (M&B, p. 118, this issue).

'Scientific' understanding of religion should be held to account by such items of 'the internal value system of science' (p. 113) as empirical adequacy and explanatory power, and honestly recognizing when a phenomenon eludes the available categories. 'Mystery' – a phenomenon that cannot be fitted into available categories – is not something that threatens science. On the other hand, putting 'clarity' or 'exactness' ahead of 'explanatory comprehensiveness', as M&B appear to do, is of questionable scientific value, for it can deter seeking out phenomena that do not fit under one's 'exact' concepts.

Liberation theology welcomes interaction with scientific studies of religion. The tensions they may generate are constructive. They can help, e.g., to clarify, purify and deepen the articulations and practices of faith, and to discern which ones are authentic (e.g., Martín-Baró 1991, 1995). I anticipate that significant religious phenomena will continue to remain outside of the scope of 'scientific' generalizations; and also that proposed scientific generalizations, since they involve categories that strip religious phenomena of their specifically religious significance, will not be able to be the basis from which to anticipate the novel manifestations of spirited religious practices. M&B disagree. Available evidence does not settle the disagreement.

2.

Support for M&B's view, that the program of the scientific study of religion can in principle encompass all religious phenomena, comes from

faith in the values of the Enlightenment – a faith, like a religious faith, that provides a horizon of meaning for historical agents attempting to shape the future. Without some faith – some commitment to a horizon of meaning that goes beyond the past and present, that makes intelligible the kinds of objectives one is to pursue, and that perhaps encapsulates novel possibilities for human flourishing – intelligent social action is impossible (Segundo 1984). Whereas from the perspective of the Enlightenment project religious faith represents *irrationality*, from a religious perspective faith in the values of the Enlightenment represents *idolatry*. It is idolatry since it involves attributing to the powers of the human mind and to a set of human practices (science) what is proper to God alone: the capability to be the source of meaning and the repository of the power that gives significance to history, produces human fulfillment, and provides the spirit to solve the great problems of the world.

Looked at in this way, M&B's desire to exclude religious practices from public education amounts to a claim for the monopoly in the schools of a particular form of idolatrous religious practice. Contrary to them, given what human nature is, the question confronting us is not: religious faith or scientific rationality? Rather it is: which faith to adopt? (I will return to this in Section 6). It would enhance public education to put this question, how it can be answered intelligently, and how there can be a variety of intelligent answers to it, on the agenda of the schools.

3.

The locus of my disagreement with M&B concerns the affirmation that all phenomena, including religious ones, can in principle be explained by reference to scientifically established generalizations. This affirmation is neither supported by available evidence nor even scientifically testable.[4] M&B maintain that it (contained in their G – I will call the affirmation P) is a *presupposition* of the practice of science. At least it seems that the 'materialism' that they claim to be a presupposition of science is essentially the view that all phenomena are lawful, where the categories of the laws are materialistic, and so not idealistic, not intentional, not supernatural, etc. Clearly if one holds P then, when seeking explanations, one will look to the products of science and nowhere else.

I do not think that P is a presupposition of science. The practice of science needs only the more modest (S): there are phenomena that can be explained in materialistic terms, in terms of hypotheses about law and underlying structure; the range of phenomena that can be explained in this way is in principle indefinitely expandable; and it is an open question whether or not there are principled bounds to the scope of scientific explanation.[5] S, unlike P, is well confirmed by available evidence.

S is also compatible with there being other forms of explanation – e.g., intentional explanation of human action – that are neither reducible to,

nor replaceable by, lawful explanations. It is plausible to maintain that the domain of application of intentional explanations sets a principled bound to the applicability of lawful explanations (Lacey & Schwartz 1986, 1987). Actually I think this is a presupposition of rationality. Certainly if one emphasizes the cognitive value of explanatory comprehensiveness, it is pragmatically significant to remain open to intentional explanations, for where now they usefully inform our deliberations and actions, there are no alternative scientific explanations to appeal to.[6] For example, M&B say, 'As for ideas, the materialist may regard them as equivalence classes of brain processes' (p. 111). Perhaps this provides ontological comfort, perhaps it can guide the direction of a research program but, as it currently stands, it is bereft of explanatory power.

P is incompatible with probably all forms of religion; *S* is not. Science, therefore, need not be incompatible with at least some forms of religion.

For the remainder of the article, I will address how relations between science and religion appear *from the perspective of liberation theology*, a particular Christian theology. *I make no claims to generality*. To do this, I will make a few remarks about the nature of religious faith (as understood within liberation theology) for, because of its inadequate phenomenology of religion, the framework of M&B's article cannot sustain a rich dialogue between science and religion.[7]

4.

Faith in God is most acute in people who hold and shape their lives around the claims: what *can be*, in respect of human well-being and social justice, is not identical with what *is*, and one can contribute to bringing about a better future. Human life – manifesting as it does consciousness, reflectiveness and directedness – is (as suggested in Section 2) implicated in value and a quest for meaning and significance. It is future oriented. One's life gains meaning to a large degree in relationship to a desired future, a possible future that one hopes can be realized. At the same time, one's life is grounded in its bodily, material characteristics; and it is deeply implicated with the lives of others through a variety of relations that reflect the groups, institutions and social structures of which one is a part. One's material nature and the complex fabric of social relations provide both conditions for, and constraints upon the possibilities of action open to one's life. They also help to account for the fact that one's quest for meaning is often thwarted through the reality of suffering. That, together with the radical contingency of conception and the certainty of death, point to the source of meaning being outside of the self, or perhaps that meaning comes through being involved in a process more encompassing that the self. Without such involvement it is difficult to sustain the hope that what *can be* need not be identical with what *is*. Without it the quest

for meaning becomes replaced by resignation to the sheer facticity of things and events (Lacey & Schwartz 1995).

Meaning, of course, is not word play. Meaning transforms lives and energizes participation in practices that one can reasonably hope will contribute towards realizing a better future, one where there is greater human well-being and greater social justice. Such practices require successful interplay with the natural and social environments, and thence *knowledge* of them. Thus within these practices positive scientific knowledge is a value. It is *one* of the factors that helps to mediate between the values one hopes to bring into fuller embodiment and the concrete practices of transformation that might realize that hope.

We have *hopes* for the future, but in personal and social affairs we cannot *know* the future. The best that the social sciences can do towards predicting the future is to project forward the regularities and tendencies of the current, dominant social/economic/political structures. Their standard methods, grounded in empirical scrutiny of what has actually been realized in history, permit the discovery of generalizations, but only of historically bounded ones (Lacey & Schwartz 1986). They are unable to recognize the nascent sources of novel possibilities that may be present in current realities.[8]

If this is so, how can we intelligently address what are reasonable hopes for the future? The sciences can help to define some of the limits of the future, and to mediate between hopes and the practices that might realize them. That is not insignificant. The quest for meaning, however, requires the identification of novel possibilities for human well-being and just social arrangements in which all may come to experience well-being. I suggest that this implies a desire for love, solidarity, justice and peace, in addition to and dialectically interacting with dignity, autonomy and freedom; in the gospel idiom, a desire to live according to 'the truth that frees' (Ellacuría 1991).

What can ground the hope that such an ensemble of values can be more fully embodied in historical movements and institutions? I suggest that there is nothing in human history, interpreted solely in secular categories, that can provide that ground.[9] Indeed, the reigning secular interpretations of history, with greater confidence since the demise of communism, rest upon individualist conceptions of freedom. For religious faith, that ground is provided by God – a source of life which transcends the human, and at the same time which manifests itself in human history and into which human life can come to participate. The quest for meaning then becomes linked with faith in God, and human well-being becomes understood as involving appropriate relations not only with material nature and with other human beings, but also with God. I cannot expound the theology here.

Faith in God has a component that is like belief in sub-atomic particles. It is articulated in words offering a complex interpretive and explanatory account of human history and human lives in terms of their relations with

God. Just as it is idle to separate the question of the existence of subatomic particles from that of the evidence for the theories that articulate their properties and laws, so too it is idle to separate the question of the existence of God from that of the support for the texts and the theologies that articulate God's role in history and in human lives.

Faith in God has another component – *which interacts dialectically with the first* – that is like belief in someone whom one loves. Thus it involves trust, and commitment to sustain and deepen that love, even in the face of obstacles. The commitment of faith in God requires participation in various practices that nourish the sense of faith: personal (e.g., prayer, ethical behavior), communal (e.g., liturgy), and social (e.g., concretely loving one's neighbor, actively promoting a fuller embodiment of the values listed above, in particular greater justice for the poor and oppressed). Faith involves both beliefs and practices in dialectical interaction. To 'believe' in the God who is the ground of the hope that there can be fuller embodiments of love, etc., and not to participate in endeavors moving in that direction, is a practical contradiction.[10]

The sciences can play a useful role in helping to identify what these endeavors might be at a particular historical moment by way of the 'mediating' role introduced above. Liberation theology has emphasized this role of the sciences, maintaining that a vital, authentic faith requires contact with them (Gutiérrez 1990; Lacey 1985).

5.

I maintained, in Section 3, that the practice of science presupposes only the modest *S*, and not the metaphysically powerful *P*. Nevertheless, in the scientific community there is a significant impulse to accept *P*.[11] That impulse can generate tensions with religion under, for example, the following conditions: when scientific advances are held to be the source of hope for the future; when attempts are made to interpret the full range of human phenomena with the same kind of categories used to understand material phenomena; when a particular stance towards nature – control, domination – which is closely connected with modern science comes to be the predominant stance, and is extended to human beings; and when science latches itself onto particular ideologies and policies, e.g., military objectives, racist ideologies, or the international expansion of the domain of private property rights to include 'intellectual property'. Tensions arise under these conditions not only (in the case of the first two) because a competing faith (see Section 2) is in play, but also because the values of solidarity, etc, that define the hope for the future become threatened. These conditions arise when science ties its practice and community ethos to a particular faith (the values of the Enlightenment, the powers of science) or to particular values (the free market and private property,

domination of nature). It serves the interests of science, especially that of its self-understanding, to be challenged under these conditions.

Tensions can also arise from the other side, when certain impulses common in religious institutions come to the fore. One impulse is to ignore the dialectical interplay between the two components of faith identified in Section 4, and so effectively to reduce faith to its articulated beliefs. Then, if a particular scientific discovery or well-confirmed theory points to the need to rearticulate some aspects of religious belief, that becomes seen by authorities in religious institutions as a contradiction of, rather than as an occasion for the enhancement of faith – leading them into sharp conflict with science. They forget that words are human devices, so that faith in God cannot be constrained by rigid articulations of beliefs. Scientific advances can contribute to challenge tendencies towards this impulse.[12] A second impulse often present in religious institutions is to reject the present as the locus for an unfolding and potentially novel future, to attempt to reconstruct or preserve a past, and to neglect or be indifferent to the future in favor of attending to a realm outside of history. Science cannot play a constructive role here for the seeking out of novel possibilities is not valued.[13] The old world, real or mythical, is already complete; it just has to be entered; its discourse needs no change. Science's challenge to this impulse within religious institutions serves the interests of the authenticity of faith in God.

These tensions are real, and they are recurrent. But they are constructive. They can serve to contain impulses that threaten the integrity and authenticity of, respectively, scientific practice and religious faith.

6.

The case that I have sketched in Section 4 may be summarized with the following propositions. (1) Human life is implicated in a quest for meaning and significance. (2) Meaning, in essential part, derives from future-orientation. (3) Meaning comes through being involved in a process more encompassing than the self. (4) Meaning derives from the hope that values such as love, solidarity, authenticity, and justice, as well as those of dignity and autonomy, can be more fully embodied in the future, so that one's life gains meaning through involvement in practices that move towards the realization of this hope. (5) Faith in God provides the ground of this hope.

Clearly all of these propositions are controversial.[14] Propositions (4) and (5) are the most contentious. Consider that the dominant trend of the contemporary world, the primacy of individualist values, rejects (4); that, empirically, there are people whose lives are devoted to realizing the hope but who are not motivated by faith in God; and that many forms of religion locate hope not in the future at all, but solely in an eternity outside of history. These important facts merit discussion.

For present purposes, however, what is important is that, in whatever way one articulates hope for the future and its ground, faith is involved – beliefs not well-confirmed by available empirical evidence, together with the commitment to act towards realizing the hope and, if successful, adding confirmation to the beliefs. Returning to a theme in Section 2, we do not face the choice 'religious faith or scientific rationality?', but 'which faith to embrace – a particular religious one, or a secular one such as M&B's faith in the power of science – or, in religious terms, faith in God or faith in an idol?' The question cannot be avoided, unless one rejects (1)–(3), for one's answer is related dialectically with how one is living one's life. Nor can one's answer[15] be deferred pending the outcome of further inquiry. One cannot stand still in the world or stand outside of it, evaluate, decide what is best, and *then* begin to act, for bringing the relevant evidence into existence can in many cases only follow the antecedent commitment, however provisional it may be, to live according to one's faith. All one can do, in dealing with 'which faith?' is to engage in critical reflection upon our own (and others') beliefs and commitments, actions and aspirations; to engage in intelligent dialogue with adherents of different faiths; and, in the course of that reflection and dialogue, to work out what counts as good reasons for adopting a particular faith.

All parties stand to gain from an attempt to identify reasonable criteria to bring to bear on such critical reflection and intelligent dialogue.[16] I propose the following criteria:

1. *Comprehensiveness*. Do the categories that articulate the faith illuminate the human condition, and enable a comprehensive understanding of human experience in all groups, classes and cultures? (Think about the explanatory work that can be done with categories like 'sin', 'people of God', 'idolatry', 'redemptive significance of suffering', 'blessedness of the poor'!) Do they make sense of the negativities (suffering, domination, frustration, dissatisfaction, loneliness) that mark our experience? Do they make sense of our moral life, and of our deepest motivations and of the obstacles to their having constant and consistent effects in our lives? Do they enable interpretations that certain events, groups, phenomena and historical movements are significant, when to other perspectives they are devoid of significance?
2. *Discernment of Possibilities*. Does a faith identify more fulfilling possibilities for the future, and the practices and institutions for moving towards them? Do these practices generate manifest anticipations of these possibilities, for example further embodiments of the values of solidarity, justice, etc.? What novel possibilities are opened up for consideration? What light does the faith shed on the possibilities implicit in other faiths and their trajectories, concerning their realizability, universalizability and value?
3. *People of Quality*. Does living in accordance with a faith produce people of quality, exemplary persons, 'saints'? Does it produce a sense of well-being among its adherents, or lead to psychological problems

and distortions of perception, imagination and intelligence? Does it generate lives of manifest moral quality, marked by non-violence, dialogue, and virtue (e.g., truthfulness, self-understanding, and courage)? Does it produce vibrant lives in places (e.g., among the poor and oppressed) where, viewed from other perspectives, essentially the only possibility is resignation to degradation?

I propose these as criteria for critical reflection on projects in which we and others are engaged, and for intelligent dialogue among competing faiths. Clearly the criteria themselves need to be clarified and subjected to critical analysis to test whether or not they bias the matter towards either religious or secular faiths.[17] I do not pretend that they can be applied in a simple way, for fact and value are intertwined in all of them posing numerous interpretive difficulties, or that they will lead to convergence of answers. They cannot be applied independently of personal biography, social experience and cultural tradition. And their application will always be comparative, leading to the support of one faith rather than another.

It seems to me to be a disservice to our children not to introduce them, as an important part of their education, into an intelligent dialogue about competing faiths That dialogue, grounded in developing habits of critical reflection on one's deepest commitments, avoids both religious dogmatism and granting *de facto* exclusive privilege, as M&B propose, to the methods and outlook of science, a privilege which masks, on my diagnosis, special consideration for a particular idolatrous faith.

NOTES

[1] A reply to Martin Mahner and Mario Bunge, 'Is Religious Education Compatible with Science Education?'

[2] Some of the details have considerable force. I would respond to them in a longer article.

[3] I am referring here to the interpretations that must have preceded M&B's forming their generalizations about religious phenomena.

[4] Issues about the confirmation and testability of this affirmation would be worth further discussion.

[5] Science deals with things insofar as they can be explained in materialistic terms. To engage in it, one needs not hold that all good explanations are materialistic. There are good reasons to seek for scientific explanations, even if one holds that in other domains of life other kinds of explanation are more fitting. *P* is a presupposition not for seeking for scientific explanations, but for restricting one's quest for explanations in all domains of life exclusively to the quest for scientific explanations. *Note* that *S* is compatible with M&B's 'there is nothing that could not be *de jure* studied scientifically'. Of course scientific study does not guarantee that scientific explanations will be discovered.

[6] Proponents of scientific explanation for human action, at this point, typically resort to defensive maneuvers. Scientific advances may lead eventually to a change in this situation. If so, we will have to accommodate to them. Meanwhile there is no compelling argument to support the opinion that they will.

[7] Within the confines of this paper I cannot defend these remarks with detailed arguments (see Lacey 1985; Segundo 1984; Ellacuría 1991).

[8] Despite this, their predictions may yet be vindicated, especially if the reigning institutions use the power they control to eliminate any alternative possibilities.
[9] Clearly this is controversial. I would use the criteria, proposed in Section 6, to develop an argument to support my suggestion.
[10] Just as it would be a practical contradiction to believe in M&B's *P*, but to neither engage in nor support the practices of seeking for scientific explanations.
[11] I will not speculate here on the sociological and psychological factors that might explain the prevalence of this impulse.
[12] Leaving aside the interests of science, the ultimate objection to fundamentalism is religious; it is implicated in 'idolatry of the word'.
[13] I write this fully aware of the irony that at present US Republican Party politics are dominated by an unstable alliance between fundamentalist Christianity and enthusiasts for 'hitech' progress.
[14] The confines of the article do not permit extended argument for them.
[15] The answer may not be articulated explicitly, but only manifested in the course of one's life, to be discerned through interpretive inquiry.
[16] I think that this is especially so for M&B. Where it is claimed that scientific standards provide the only criteria, then when faith in the power and significance of science wanes, as is happening today in postmodernist intellectual circles, we are left with only nihilism, and a vacuum into which powerful interests rush. This is a greater threat to science at present than anything posed by religion.
[17] I do not of course think that the above criteria bias the matter.

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