

Forum on Environment, Science and Values



Senator Cory Bernardi

On 11 November the Institute in conjunction with the forum "Issues of Jewish and Social Concern (IJSC)" held a symposium on "Environment, science and values" with Senator Cory Bernardi, Tom Quirk (former Oxford scientist) and the Director of the Institute. Not long after this forum, a major change occurred in Australian Federal politics with the appointment of a new leader of the Opposition, over the very issue of the Emissions Trading Scheme proposal which was rejected by the Australian Senate. Senator Bernardi has since become Shadow Parliamentary Secretary assisting the Leader of the Opposition and Shadow Parliamentary Secretary for Infrastructure and Population Policy.

The season of reflection

At a season of the year when thoughts are invited to turn to religion, it is appropriate that these indeed turn to a serious reflection on religion and not simply to a commercial and cultural veneer. One of the deepest needs of society, and above all of the education of children, is intellectually to grasp what humanity has long believed. Only with an intellectual grasp can the challenges of a secularizing culture be met. For a national radio discussion of the significance of the Jewish festival of Chanukah Google "Rabbi Shimon Cowen ABC Tim Cox" or go to:

http://blogs.abc.net.au/tasmania/2009/12/hanukkah-past-hanukkah-present-rabbi-shimon-cowen.html?program=northern_tasmania_station_announcements

Conference of the Organization of Rabbis of Australia: values and politics

The Conference of the ORA in Melbourne on December 2, heard a report from the Director on communicating universal values (The Noahide laws) in the political sphere, and a motion was passed to establish a committee of the ORA on social policy and to appoint the Director to its Chair.

Forum on science and religion at Parliament of the World Religions

The Director of the Institute participated in a forum at the recently held Parliament of the World Religions in Melbourne in early December. Panelists also included Professor Phil Batterham, Professor of Genetics at the University of Melbourne and Professor John Buckeridge of RMIT University and immediate past President of the International Union of Biological Sciences. The discussion marked the 200th anniversary of the birth of Charles Darwin, and bore directly on the relation of religion and science in a human and educational context. For the Institute's contribution to the discussion see the essay below.

ESSAY



Science, Religion and Education
*Rabbi Dr Shimon Cowen, Director,
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Introduction

In the following I discuss, from a traditional Jewish point of view, the demarcation between religion and science. This is one which accords integrity to each, whilst bringing out issues in their relationship. It concludes with a proposal for the way in which problematic aspects of their relationship can be dealt with without necessarily teaching creationist science or Intelligent Design, though which might satisfy the religious worldviews behind Creationism and Intelligent Design.

These comments were presented at a forum at the Parliament of the World Religions in Melbourne on 9 November 2009, with Professors Phil Batterham and John Buckeridge in a forum entitled "Interpreting the text: creationism, intelligent design and evolution." The present version revises that presentation somewhat and incorporates observations added as a result of the discussion amongst the panelists and with the audience.

Briefly, science is concerned with "physis" – the Greek term for "nature" – whilst religion is concerned with *metaphysics*, that which is beyond nature, or more precisely is the "envelope", the ultimate meaning and foundation, of nature. Each of these realms has its own integral "method", deserving of respect. Nevertheless they do have a systemic relationship with one another - they have consequences for one another, where they run into one another, and must ultimately establish their places in this relationship. The issue of this accommodation is not simply theoretical; it is of practical educational significance.

The Domain of Science

Science, whilst it necessarily makes use of theories (wide in their scope), is ultimately empirical in its reference: its task is to analyze the phenomena of nature. It is also pragmatic. This means that what counts for science is its success in establishing "rules" amongst the phenomena of nature and technological "applications" of those rules. I ride in a car or airplane that has been engineered on the basis of laws of physics. Whether or not I hold those laws

to be ultimately true, I trust the vehicle, I will get on board the plane, because the science behind their engineering "works". So it is that science delivers to us all kinds of wonderful bounty: food, health, communications, industrial productivity and so forth. It has clearly tapped into nature with extraordinary effect. Yet, we shall argue, its theories may still not express ultimate metaphysical truth.

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In its pursuit and achievement of technical efficacy, science rightly demands respect for its methods and its empirical rigour. For this reason, a distinguished scientist like John Buckeridge may be impatient about teaching "intelligent design" within the matrix of science education, because of what he calls its weak commitment to empiricism. I do not presume to adjudicate on "intelligent design", but I can acknowledge the empirical demands and standards of science. At the same time, the demands of empirical testing should serve to limit the pretensions of science to state cosmological principles or theories, reaching into time past or future or in the remote stretches of space, where no scientist ever stepped foot. I have noted elsewhere (<http://www.ijc.com.au/newsletter/2009/rosh-ha-shonah.pdf>) the rigorous philosophical skepticism of the major philosopher Bertrand Russell, a self-professed atheist and great champion of science, who stated that the concept that

the world was created "a moment ago", looking evolved, (and all of us fitted with pre-recorded memories) cannot be logically refuted. In fact it is the position of Judaism and some other religious traditions, that G-d "once" created the world and thereafter does so continuously from moment to moment. Russell *preferred* not to believe this, but rather in the eternity of matter. The preferred stance of Judaism is that of the primacy of the Divine as a transcendent ongoing Vivifier of its secondary product, nature.

Not only are the projections of science into the past, and the future and to the limits of space, based on a metaphysical presumption, but also the very notion of causality - the laws or rules posited by science, which come under the topic of "induction". In philosophical terms, the fact that A is associated with (and could be said to be a cause of) B, and has repeatedly been seen to be so, does not mean that it always was or must be the case tomorrow. For Russell, induction remained a rationally unsolved problem, though he "believed" in it. Again for the religious consciousness of a continuously creating G-d, induction has no absolute foundation. Just as creation and everything in it is renewed moment by moment, it is renewed by G-d at each moment under the conditions He chooses. He can alter the rules. He can make new causalities.

Thus amongst the scientific methodologies of establishing the earth's age is radiometric dating, by projection from current rates of radioactive decay. But this is

based also on a simple, metaphysical assumption: that the rate of decay, as we know it, does not change; it was only ever as it is now. The very opposite metaphysical assumption might be that of a believer in a continuously creating G-d, who created a fully formed world, and moreover who can introduce tremendous qualitative changes to the creation in short periods of time. To readers and believers of the Bible, the initial account of the creation of the world ex nihilo, followed by an account of the contraction of the lifespan of humans from around 1000 to a little over 100 years, present a picture of the opposite of constancy. Here G-d is altering the envelope – and with it the “rules” and “constants” - of nature. It does not mean that the rules are constantly changed, but they have and can be, and this is part of the “logic” creation, and redemption, itself.

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Encountering a student with such a worldview should not, however, be a reason for the scientist to throw his or her hands up in despair. As Phil Batterham indicates, he finds evolution a successful theoretical tool for examining the adaptation of insects to insecticides over a period of 50 years. Here is science working with a comprehensive theory, *but limited to the actual data before the scientist*, which is practically – pragmatically – successful. We could argue that science does not need to vouch grand-theoretical pronouncements about what was before and what

is ahead. Science is worthy and productive, without having to be responsible for the “truth” in an absolute sense, to do a good job in managing the phenomena before it.

Religion, on the other hand, is concerned with truth, the absolute truth, which has to do with the “envelope” of reality. In other words it is concerned with true metaphysical co-ordinates of the physical, empirical data of nature. This is information which is both “about” reality, and more significantly, how G-d wants us morally to act in and for this creation, which He made, to move it towards its redemptive potential. Accordingly it has to do with “revelation” – the communication of G-d’s “knowledge”, both a theoretical-metaphysical and moral doctrine to the human being.

Religion also stipulates the concept of a human soul, “made in the image of G-d”, which is able to resonate with and ratify those objective truths and universal (G-dly) ethics, communicated by G-d in revelation. This has been a key factor in the engagement with Darwinism by various strains of Christian theology. Some Evangelical Christians have wanted to maintain a strict creationist approach, because the concept of G-d as the Creator of being leaves no doubt that He can set moral rules for it, and that such norms exist. Catholicism, it appears, has shown greater willingness to entertain evolution on its own terms, provided the ensoulment of the human being is left with G-d. Again, this is for the same reason: that a Divine morality can find its verification via the soul of the human being,

which can imitate its Creator. For without the human soul, Darwinism sails straight into a materialism of unholy moral consequences.

The concept of creation ex nihilo, once and since then constantly reiterated, as taught by Judaism, does not rob human being of responsibility or the material creation of continuous identity. Just like an electrical current keeps the “same” light burning, so do “we” continue consciously and cumulatively to exist by the transcendent G-dly life force which revivifies us, with changes expressing both the consequences of human conduct and intervening Divine providence. Indeed, the fact that G-d generally maintains the patterns of nature over long stretches of time, saves us excessive astonishment or trauma. But the concept of constant creation serves to emphasise two points: that G-dliness is the primary reality and nature its product and that the entire creation is *entirely* dependent upon G-d (for its very continued existence, rather than subsisting on its own “over against” the providence of a great and powerful G-d).

“The message which comes from the Bible is not to be relativised as mere parable because of difficulties we have in understanding it. Hermeneutic (interpretational) principles as well as commentary handed down from Sinai, accompany the written text, and one must know this tradition of commentary as much as the written text itself.”

At all events, from a religious point of view, Darwinism and evolutionary theory must be bounded by the metaphysical information which revelation supplies. The message which comes from the Bible is not to be relativised as mere parable because of difficulties we have in understanding it. Hermeneutic (interpretational) principles as well as commentary handed down from Sinai, accompany the written text, and one must know this tradition of commentary as much as the written text itself. To write off the text because of its difficult “literalism” risks discarding not only metaphysical truths but also eternal moral truths stated within it. This is a major issue, which is readily resolved within Jewish tradition, by the body of commentary known as the “oral law” which elucidates the “written law”. It states the meaning, detail and application of the literal text.

During the forum, two such issues of “literalism” arose. First, the question of how humanity could have been propagated from the children of Adam and Eve, when all we read about their progeny is that they had three sons. Now in fact the tradition of commentary states that they were born with twin sisters and moreover they were permitted by G-d to marry their sisters. In other words, incest was in fact permitted by G-d to commence the propagation of the human species *though* it is thereafter strongly prohibited by the biblical text. As for the statement that Eve was created from Adam, this does not have to mean that Eve was in fact a clone of Adam. G-d, unconstrained by any external laws of biology, chose to fashion a different human being. It began with or from

Adam, in order that this person should have the same uniquely human generic potential as Adam, though she would be different.

Science, religion - and education

Whilst science generally operates without religious knowledge, and religion is often little acquainted with what goes on inside the laboratory, this does not preclude the ultimate convergence of science and religion. The scenario of that convergence is where science in its full empirical rigour and grandeur will operate within first principles ratified by revelation, when science, by its own methodology, will itself reveal the Creator G-d within creation. Religion will be seen to have “included” science, though that will be achieved not only by the teachings of theology, but also by the travail, the hard work, of science itself.

“If we cannot at this stage, produce a systemic harmony between religion and science, we should at least, speak of the concerns of religion and teach the limits as well as the glory of science. There needs to be a module independent of the science curriculum, but taught as an introduction to it, which will make these points and recognize the interactions between religion and science.”

Up to that point, science and religion must fix the rules of their coexistence, each by acknowledging the other’s domain: religion in the metaphysical envelope of nature, and science within the empirical realm of nature before the scientist.

Science cannot dogmatically speak about what is outside its present limited empirical scope; the theories which it necessarily constructs to explain must be seen only as tentative in their applications beyond the empirical present. Science at the same time deserves respect for the way it handles its immediate and present empirical field, as indeed we rely upon it to be.

Grand cosmologies of science can and are sometimes genuinely experienced to conflict with religious belief. Where they do, we have a matter of concern for culture and for education, especially the education of children. At the same time, we cannot simply teach them as separate and unrelated worlds. Education of children must necessarily incorporate meaning: it cannot and should not partition practical knowledge (including science), from values. If we cannot at this stage, produce a systemic harmony between religion and science, we should at least speak of the concerns of religion and teach the limits as well as the glory of science. There needs to be a module independent of the science curriculum, but taught as an introduction to it, which will discuss the interactions between religion and science.

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