

**The Big Bang and the Big Bomb:
Examining the Role of Science and Technology in
Apocalyptic Belief Systems**

**Christopher Helland
University of Toronto, Center for the Study of Religion**

Well over a decade ago, on a Sunday morning for entertainment, I was watching the great charismatic preacher Oral Roberts. Just by luck I happened upon his sermon in which proclaimed to have recognized the beast from Revelations. In his lament against the beast and Satan he produced a sign of it proof, conformation that the beast was among us and we were fast approaching the end days and the battle of the apocalypse that would herald in the new millennium. His proof was both comical and shocking. From his wallet he produced a credit card bill from Sears or J.C. Penny, and pointed with excitement at the string of numbers at the bottom of the receipt used by the a computer to read the data. There among a string of numbers, irrelevant to the normal person, were three six's in a row, "666" the number of the beast. He had figured it out; computers were a tool of the devil and a manifestation of the beast amongst us. He told those listening to him that they could easily verify what he had discerned by simply checking their own receipts and bills when they got home.

This event occurred in the relatively early days of computers, long before the worry of the Y2K bug and the potential for systematic catastrophe due to computer malfunction and the resulting confusion. It was disconcerting to hear him speak about computers being a tool of the devil. Was he talking about the same computer that one of my first lessons in computer science class taught me was "garbage in equals garbage out"? Was he talking about the same computer that allowed for the development of the enormous capabilities of scientific calculation and technological advancement? Although it made little sense to me at the time, it was clear from his rhetoric that yes, he was.

In a way this portrayal of technology as a tool of the devil or a manifestation of the beast can make sense. Using Peter Berger's definition of the role of religion as a the "ultimate shield against the terror of anomie"¹ this interpretation presented by Roberts may be an attempt to shield the practitioners of his religious tradition from the anxiety inducing sense of normlessness created by modern scientific progress. In the discourse presented by Roberts science and technology are a personification evil and incorporated within his tradition in the position most amicable for that of enemy, namely the Book of Revelations.

The framework presented by Berger does have limitations when examining why this transformation of a secular enterprise into a religious enemy appears so successfully within the Christian Fundamentalist and Evangelical movements. Does the removal of anomie created by

¹ Peter Berger, *The Sacred Canopy*, 1967, (New York,1990), p. 26

modern progress and development account for the need for science and technology to be type cast as the greatest evil manifest upon the planet according to the religious scriptures used by these traditions? Not necessarily, certainly the developments achieved by the scientific pursuit can be alienating. There is no doubt that many followers of the Evangelical/Fundamentalist movement are threatened and disorientated when challenged by current scientific developments, but then again who isn't. I'm certain everyone in this room has felt anger toward their computer at one time or another, reinstalling disks, trying to recover lost information, or reformatting a text can push the limits of any individual. But there are other means of reducing the alienation caused by these machines than by labeling them as the greatest evil on the planet. The association created by movements like those of Oral Roberts toward science and technology is upon a much deeper level.

Transforming science and technology into a representation of the beast and then incorporating it into the scriptures of the Christian tradition that contain their most graphic representation of evil, recognizes science as the greatest enemy to humanity and the greatest threat to the Christian living today. This correlation draws upon secular symbols to support the narrative. The atomic and hydrogen bombs are interpreted as methods of God's fiery punishment meted out to the unbelievers. The giant locus in Revelations has been equated with army helicopters. A computer chip has been described as the mark of the beast.² Epidemics and pandemics are viewed as God's punishment and the lack of a cure for the Aids virus is seen by some as proof of the inability of science to overcome God's wrath.³ These symbols have been interpreted in light of their potential for disaster. They have become, within the Fundamentalist framework, a symbol of spiritual warfare that will be manifest as a physical catastrophe upon the earth.

These scientific and technological developments in our contemporary culture are certainly congenial to being included within an apocalyptic framework. The interpretation presented by the Fundamentalist premillennial view regards the development of science and technology as something that is inescapably linked to catastrophe. This catastrophe may be actualized, as in the case of the use of atomic weapons, or it may be anticipated according to the prophetic framework used for their millennial beliefs. This representation of the secular dimension of the apocalyptic narrative represents a component of millennial rhetoric which O'leary referred to as the Jeremiad, or the classification of the general evils of everyday life into a verification of the coming apocalypse.⁴ But as I have already shown, there is a deeper level to the use of science in the Fundamentalist framework in which it becomes the very personification of the Christian enemy. In this instance, the catastrophe presented by science and technology concerns the very ontological understanding of the person participating within the religion.

The Fundamentalist stance has been linked to the 1812 Presbyterian seminary in Princeton and the work done by Alexander and then his predecessor Hodge. They took a staunch view against modern biblical criticism and agnostic rationalism, they believed in the "infallible truth and the divine authority of the word of God" as found within the scriptures.⁵ Scientific methodology challenged the very truth claims made by the church and those scriptures concerning miracles, a virgin birth, resurrection of the dead, and countless other foundational

² This correlation between secular historical events and symbols and the apocalyptic narrative is a form dispensationalism. Perhaps the most wide spread and well know recent manifestation is the work done by Hal Lindsay.

³ Susan Palmer, *Aids as an Apocalyptic Metaphor in North America*, (Toronto, 1997).

⁴ Stephan O'Leary, *Arguing the Apocalypse: A theory of Millennial Rhetoric*, (Oxford University Press, 1994), p. 83.

⁵ The basic Fundamentalist principles are: 1) The bible is inspired and without error. 2) Jesus was born of a virgin. 3) His death atoned for the sins of the people. 4) There will be a bodily resurrection. 5) The miracles of Jesus are real.

events. Darwin's Origin of Species was only one factor, in what was termed at the beginning of the century, "the war between religion and science".⁶ By placing scientific and technological development within the framework of the apocalyptic writings of the Christian scriptures, as the jeremiad and the personification of evil, this war comes to represent a real event for the practitioner of the tradition on the physical as well as the spiritual plane. If the apocalypse were to occur according to their interpretation, all the components that are foundational to the Fundamentalist world-view would be justified and their religion would be triumphant over the evils of Satan that have manifest upon the planet in the form of science and technology. The final battle would vindicate their belief system and although there would be catastrophe such as the world has never seen, they believe the just and the righteous would be saved both physically and ontologically.

This perception as science as the enemy and a manifestation of Satan poses several problems. One of the most evident is that this fundamentalist world-view breaks from the traditional Protestant religious belief system that allows for a form of "inner-worldly asceticism".⁷ How is the practitioner of this tradition able to function in our contemporary culture if they view science and technology as a manifestation of evil? This becomes a polarized example of the incorporation of science within a religious belief system and may create as much anomie as it relieves. Although the premillennial framework allows for a conception of temporality, designating a sense of closure that will occur in the not too distant future, the practitioner is faced with a series of clashing worldviews that may not be well suited to our modern secular culture.

It is extremely difficult to bring science into a religious belief system, and many argue that it is impossible. However, in an effort to remove anomie and challenge the catastrophe presented by the scientific pursuit the methods used by Fundamentalists and Evangelical movements represent one attempt to incorporate science into their religion upon a popular level. The example of this amalgamation is a premillennial or catastrophic millennial world-view and science is represented as a component of "evil". However, science and technology also appear in a number of religious narratives as a different component of the millennial myth.

A large number of current new religious movements have attempted to incorporate science within their belief system.⁸ Statistics of membership in these groups supports a correlation between their attempted incorporation of science and their appeal to a modern contemporary secular society.⁹ Many of these groups are premillennial in nature and anticipate a catastrophic worldly or universal event that will herald in their version of a new paradise upon earth. Despite the wide spread attempted use of science within new religious movements it is important to designate a separation between those that use science as an integral component within their belief system and those that use science and technology as a secondary component. An clear example of the use of science and technology as a secondary component within a new religious movement can be seen in Transcendental Meditation (TM). Although TM uses scientific studies and scientific language to validate and express their practices,¹⁰ science is not an integral component. TM is based upon an ancient system of meditation, if the scientific

⁶ Andrew Dickson White, *A History of the Warfare of Science with Theology in Christendom*, (New York, 1897).

⁷ Max Weber, *The Sociology of Religion*, (Boston, 1956), chapter XI.

⁸ Robert Ellwood and Harry Partin, *Religious and Spiritual Groups in Modern America*, (New Jersey, 1988), p. 14.

⁹ Christopher Helland, *Science and the Sacred: New Technologies within New Religions, A Reaction to Secularization and a Reinterpretation of Myth*, unpublished, (Concordia University MA thesis, 1999).

¹⁰ For a detailed examination of the use of science by the TM Movement see Mikael Rothstein, *Belief Transformations: Some Aspects of the Relation Between Science and Religion in Transcendental Meditation and the International Society for Krishna Consciousness*, (Cambridge University Press, 1996).

element was removed, their religious beliefs and practices would remain the same. On the other hand, groups that use science as an integral or primary component have woven science directly into their religious myth and practices. In other words, without the scientific dimension these groups' belief system would not exist. One of the best representations of this form of primary incorporation can be seen in UFO religious movements. To demonstrate the millennial dimension of this type of group, three new religious movements that contain science as an integral component will be examined.

The Academy for Future Science is anticipating a radical transformation in which our planet will be moved to another area of the galaxy and a new era will begin for humanity.¹¹ Drawing upon some of the same dispensationalist interpretation of scriptures as presented by Hal Lindsay, they believe certain events such as the atomic bomb, the founding of the Israeli state, and the size of the standing army of China, are components that validate their predictions. Where their apocalyptic views alter from that of the Fundamentalist presentation concerns their acceptance of science as a positive element of human development, rather than a manifestation of evil. "There will be a tremendous acceleration of the physical sciences into the spiritual sciences in truly transmuting the world of material form into the kingdom of Light. Therefore they [the group's teachings] are being given to the builders of the consciousness frontiers of both physical science and spiritual science..."¹²

Evil for the Academy for Future Science are fallen angelic beings manifest upon this world as extraterrestrial intelligence in league with certain world governments. Although science and technology will play a role in the battle of Armageddon, Hurtak assures those who accept his teachings that the higher powers have greater technology and much more advanced science which will be used to save the elect. Their apocalyptic battle resembles that of a Gnostic myth, in which humanity is fighting against fallen creator gods for its divine right to participate in the kingdom of heaven. The kingdom of heaven for this group is a complicated multi-level place that includes spaceships and advanced civilizations alongside the conception of a throned creator god. Their teachings predict the planetary transformation will occur in January of the year 2003.

Another group anticipating the apocalypse is the Planetary Activation Organization. Like the Academy for Future Science they present an epic myth to their followers that contains beings from other planets, spaceships, and higher creator gods. Within their apocalyptic narrative corrupt governments have been using technology and scientific advancements, some created by humans and some created by negative space aliens, in an attempt to fight off an anticipated landing of good extraterrestrial forces. Within their teachings, the higher beings have more powerful and sophisticated technology at their disposal that enables them to counteract any attack or worldly destruction carried out by the negative forces. When the good aliens do land upon our planet, earth will be transformed. The damage done by pollution and environmental devastation will be reversed. New extraterrestrial technology will be shared with the earth inhabitants that accepted the teachings of the organization and a new era of interplanetary travel and adventure will begin for their followers.

The Planetary Activation Organization has had a number of failed prophecies concerning their apocalypse, including the anticipated landing of UFOs in conjunction with the arrival of the comet Hale-Bopp, an apocalyptic scenario made famous by the Heaven's Gate group. Interestingly enough, the movement has maintained an active following and has accounted for

¹¹ Hurtak, J. J., *The Book of Knowledge: The Keys of Enoch*, 1977, (The Academy for Future Science, 1982).

¹² *Ibid.*, p. xi.

their failed premillennial prophecies by developing their narrative towards a postmillennial worldview. It now becomes the responsibility of the membership of the movement to advance consciousness upon the planet before the mass landings of UFOs will occur. However, within the narrative there remains a component of assurance and protection imparted upon the membership. No matter what catastrophe befalls humanity, they will be protected and saved.

The International Raelian Movement is perhaps the largest UFO religious movement in the world with over 35,000 members. Their belief system stipulates that science and technological development are the highest forms of divinity available to humanity. Rael, the group's founder, claims in his teachings that science is the, "most important thing for all of humanity." He tells his followers, "you will keep in touch with the advances made by scientists, because they can solve all your problems."¹³ The Raelians believe that current scientific and technological development will eventually place humanity on par with its creators, who they believe were scientists from another planet who seeded life here through genetic engineering and cloning.¹⁴ They believe in scientific reincarnation, that is those who have earned the right will be genetically cloned and recreated, so that they may experience eternal life. When the person nears death their consciousness will be transferred to a cloned body in a continuing cycle that will grant them immortality. Their belief system attempts to reduce spirituality and mysticism to a scientific materialist paradigm. "As we have already explained to you in the first part of the message, there is no God, and obviously no soul. After death there is nothing unless science is used to create something."¹⁵

Earning the right to be granted eternal life requires the individual to accept the teachings of their group, promote its ideals, and most importantly prove their worth through developing science and technology towards their utopian view of the civilization of the future. They believe that the purpose of our existence is to develop scientifically to the point where humanity will be able to travel to other planets and through genetic engineering, create life.

Although it may seem fanciful, the Raelians have provided a large amount of financial support to aid in the development of cloning technology. They have founded the first cloning companies in the world and are promoting the cloning of pets and the ability to have your DNA preserved until the technology develops to clone the human body.

They appear very positive in their utopian ideal and their teachings are focused upon the perfect world that will develop when the old religions of the past are destroyed and science becomes the new religion of humanity. Their positivist view towards science and technology does recognize the potential for catastrophe created by scientific developments, including nuclear weapons, but they hold the view that it is the world governments who are abusing science and technology which pose the threat and that it is the power structures that must be changed if catastrophe is to be avoided.

The Raelian movement may represent one of the most positive incorporations of science within a new religious belief system, however its postmillennial world-view is tempered with a form of premillennialism. If their utopian ideal is not realized, or if humanity cannot develop to meet the requirements laid out in their teachings, there will be an apocalypse. This belief represents the ideal mix between the premillennial and the postmillennial world-views. If humanity does not develop toward their ideal it will be destroyed. This destruction may come from above but they believe it is most likely to be created by humanity itself, through the abuse

¹³ Rael, *The Final Message*, (London, 1998), p. 181.

¹⁴ Rael, *Le Vrai Visage de Dieu*, (Canada, 1999).

¹⁵ Rael, 1998, p. 138.

of science and technology. Their religious system creates a form of button down or fail-safe relationship with science and technology, what I would term the “premillennial loophole”. Although positive towards its view of scientific and technological development, the movement has compensated for catastrophe.

The very nature of their belief system presents a world-view that allows the individual to maintain a sense of well being and peace in light of the potential terror presented through the destruction of the world. They may whole heartedly participate in scientific and technological development, recognizing it as a positive aspect of human progress, however if things go terribly wrong and their belief system and teachings are not accepted by the rest of humanity they alone will be saved and those that didn’t listen will be perish.

It becomes difficult for a religious tradition to meet the needs of its participants if it ignores the impact science and technology has upon our contemporary culture. In the beginning of the paper I mentioned Peter Berger’s definition of the role of religion as, “the ultimate shield against the terror of anomie”. This framework works well but in order for religion to be used by the group to remove anomie, the problem must be incorporated within the religious belief system. For religion to deal with the problem, the problem must be religious. Science as a secular development and not a component of religious myth or a series of religious symbols remains a secular development. As the Fundamentalist premillennial view demonstrates the incorporation can occur when they transform science into a symbol representing evil in the day to day life of the practitioner and also as a personification of the very source of evil itself. Other movements that attempt to bring science within their religious belief system have done so symbolically by associating it with different components of their religious myth. UFO’s are seen as advanced technology with divine implications, being chariots of the gods or vehicles used by “angelic” and “demonic” forces. Cloning becomes a method used by the “divine scientist” as a tool for the resurrection. Advanced weapons and technology are believed to be the means that will save the true believers, coming from above, at a time of ultimate crisis.

Although most scientific people would argue that the above beliefs are non-scientific or pseudo-scientific at best, it is important to recognize that the participants within these traditions believe they are scientific components. Within the sociological study of religion I believe it is important to recognize that these individuals believe these elements are plausible and it is not the purpose of my examination to argue their validity.

Science as a secular symbol can be represented, upon a popular level, by reducing it down to a functional role. In this paradigm science can represent progress and transformation or catastrophe and destruction, or a combination of all four. Switching from the secular to the religious framework; mythically speaking, progress and transformation or catastrophe and destruction are millennial elements; they are apocalyptic symbols.

In conclusion I would like to suggest that when people turn to religion to deal with the alienation created by science, religion must include science within its belief system. One way this is accomplished, upon the popular level, is by incorporating science within the millennial myth of the religious tradition. This is why I believe millennial beliefs will remain a permanent fixture of our religious landscape.