

Theology and Science

Scientism, the belief that science provides the epistemological framework upon which reality can be known, enjoyed its heyday in the first part of the Twentieth Century,¹ until roughly the early 1960's when it started to come under increasing scrutiny. During that time it was widely believed within academia that "science was the answer." The very word "scientist" was enough to make people expect "the facts." Science in this atmosphere did not need to give theology a second thought. Science, indeed, especially since Darwin, had gleefully pushed theology and religion off the intellectual map. Together with some creative rewriting of history (e.g. the Galileo affair²; the Scopes trial) the scientist (a name coined only in 1834³), had become mankind's savior.

Certainly, scientism has not gone away. It is still promoted in numerous textbooks and TV specials as the voice of calm reason. It still has its superstars: the late Carl Sagan, who famously began his book (and TV series) *Cosmos* with the words, "The cosmos is all that is, or was, or ever shall be."⁴ The late Stephen Jay Gould, whose NOMA attempted forever to separate the realm of facts (occupied, of course, by science), and the realm of private spiritual metaphor (occupied by theology and religion).⁵ And, of course, Richard Dawkins, author of *The Blind Watchmaker* and *The God Delusion*, who calls religion "a virus of the mind,"⁶ and the source of such one-liners as, "Nothing in the mind exists except as neural activity."⁷ Their creed is summed up accurately by Phillip Johnson:

Science may not be able to answer all questions, at least for the time being, but some of the most visionary scientists already speak of a "theory of everything," or

“final theory,” which will in principle explain all of nature and hence all of reality. Because (in this view) science is by far the most reliable source of knowledge, whatever is in principle closed to scientific investigation is effectively unreal.⁸

It is not our intention here to refute the statements of Sagan, Dawkins and others. Johnson has placed his finger on the trouble, and it is not science qua science, but science as philosophical naturalism.⁹ Philosophically speaking, naturalism is its own refutation.¹⁰ As Plantinga has shown, philosophical naturalism turns against itself.

From a theistic point of view, we'd expect that our cognitive faculties would be (for the most part, and given certain qualifications and caveats) reliable. God has created us in his image, and an important part of our image bearing is our resembling him in being able to form true beliefs and achieve knowledge. But from a naturalist point of view the thought that our cognitive faculties are reliable (produce a preponderance of true beliefs) would be at best a naïve hope. The naturalist can be reasonably sure that the neurophysiology underlying belief formation is adaptive, but nothing follows about the *truth of the beliefs* depending on that neurophysiology. In fact he'd have to hold that it is unlikely, given unguided evolution, that our cognitive faculties are reliable. It's as likely, given unguided evolution, that we live in a sort of dream world as that we actually know something about ourselves and our world.

If this is so, the naturalist has a *defeater* for the natural assumption that his cognitive faculties are reliable—a reason for rejecting that belief, for no longer holding it. (Example of a defeater: suppose someone once told me that you were born in Michigan and I believed her; but now I ask you, and you tell me you were born in Brazil. That gives me a defeater for my belief that you were born in Michigan.) And if he has a defeater for *that* belief, he also has a defeater for any belief that is a product of his cognitive faculties. But of course that would be *all* of his beliefs—including naturalism itself. So the naturalist has a defeater for naturalism; naturalism, therefore, is self-defeating and cannot be rationally believed.¹¹

Any “science” wearing these clothes can never enter into fruitful discussion with theology.

This is not to say there should be a stand-off. For those theologians with less than solid faith in Scripture the clear route is to revise their theologies so as to appear more scientific.¹² This is completely unnecessary. The ethicist Stanley Hauerwas notices that, “The history of modern theology is littered with the wrecks of such revision done on the basis of a science that no longer has any credence.”¹³ It is our contention that Systematic Theology, when it develops all its constructs from the Bible, is well able – in the form of theological apologetics – to show up scientism as both groundless¹⁴ and aimless.¹⁵

In any case, the tide is beginning to turn.¹⁶ In 1962 the philosopher Thomas Kuhn created a stir in the academic world with his book *The Structure of Scientific Revolutions*.¹⁷ In this work, Kuhn asserted that the hard-sciences, which formerly (under Baconian influence) were believed to be pursuing and delivering up incorrigible truths, were, in fact, vulnerable to overriding presuppositions and the incursions of uncertainty. Kuhn has taught us that no one is completely objective – certainly not scientists.¹⁸ He shows that the scientist is influenced in his experiments by the scientific culture of the community of which he is a part. Scientific theories are, therefore, not evaluated discretely, but “as part of networks of assumptions which sometimes change together rather radically.”¹⁹ He works within the accepted rules of that community, countenancing the “assured results of scholarship,” prioritizing his research in line with what the community thinks is important, looking for things the establishment expects him to look for. As John Feinberg describes it, “Handling and interpretation of data always presuppose some conceptual framework which incorporates commitment to a particular scientific paradigm.”²⁰ Vern Poythress comments,

All data is “theory-laden.” It already presupposes, in its very status as data for a given experiment or a given theory, that the universe is organized in a way compatible with the assumptions of science as a whole. The current disciplinary matrix affects how scientists make observations, what they think the observations actually measure, and what kinds of data or experiments are relevant to the outstanding open questions in their field.²¹

“Normal science” continues within what Kuhn calls the “reigning paradigm” or scientific worldview of the scientific community. As anomalies appear they are either kept at arms length or left for the machine of “scientific progress” to process further in time. But as these anomalies increase the explanatory power of the reigning paradigm begins to appear less attractive. New problems create new questions, the answers to which seem to be beyond the present way of doing science. A “scientific revolution” occurs when someone (e.g. Copernicus, Newton, Pasteur, Planck, Einstein) puts forward a new and more explanatory theory, which quickly becomes the reigning paradigm. The textbooks are revised to reflect the new approach but “the desperate twistings, retrogressions, denials, and struggles are omitted”²² so as to lend a (false) impression that science is one continuous, linear search for truth, that it “goes where the facts lead.”²³

Another fascinating aspect of the change from one paradigm to another is that before the paradigm shift is completed the two groups of scientists; those traditionalists who want to hold on to the old but increasingly awkward looking theory, and those “questioners” looking to abandon it for the new explanation, will, for a time, be unable to comprehend each other clearly. This is because within each group’s worldview there is “a continuity in which all reality emerges out of what is already there.”²⁴

Obviously, Kuhn has had his critics, but more and more his contribution is being seen (when shorn of its relativism) as a helpful way to view science, and the values that inevitably lay behind the choices scientists make.²⁵

Kuhn is not the only thinker who has highlighted the subjectivity that inhabits the community of science. Two more important voices are those of Imre Lakatos²⁶ and Michael Polanyi. Ian Barbour gives an excellent summary of Lakatos's contribution:

Lakatos maintains that a *research program* is constituted by a hard core of ideas that is deliberately exempted from falsification so that its positive potentialities can be systematically developed and explored. Anomalies are accommodated by changes in the auxiliary hypotheses, which can be sacrificed if necessary...A program should be abandoned when it is stalled and not growing for a considerable period and when there is a promising alternative...However, a degenerating program can stage a comeback if it is reinvigorated by an imaginative new auxiliary hypothesis...He believes his scheme *describes* the best scientific practice and *prescribes* how scientific programs should be evaluated, namely by comparing their progress as strategies for research over a period of time.²⁷

Polanyi's work, too, is very helpful in clearing away the stubborn masonry of scientific positivism. In *Science, Faith and Society* he explains how natural laws are evasive²⁸, and the propositions of science derive, more often than not, not from "primary observations," but from "intuitive perception."²⁹ Later he would refer to this as the "tacit dimension"³⁰ or "tacit intelligence."³¹ For him this tacit knowledge is the precondition to the practice of any science. Moreover, there is always some sense of mystery that evades description within the methodology itself. Hence, good science is neither totally objective nor exhaustively verifiable.³² Polanyi included the interesting observation that when a person models himself after a great man (he gives the example of Napoleon) he has first to adopt

an attitude of reverence.³³ Any theologian worthy of the name should be able to make the right application.

These examples of Kuhn, Lakatos and Polanyi³⁴ serve as useful illustrations of the power of presuppositions and worldviews, especially on what one does with “the facts.” The repercussions of this for Christian theology and methodology are not to be missed.

- a. There is the question of whether or not the supernatural realm exists, and, if it does, how it affects things on earth. If one has an atheistic or naturalistic worldview this will influence one's opinion of whether God (if He exists) can be known or has revealed Himself. Within a naturalistic paradigm a person will not even be looking for a supernatural explanation, and this belief will be reinforced by the community of atheists which he/she inhabits.³⁵ Hence, to these kinds of people the whole theological enterprise is likely to be a study in irrationality. In their definition of science, theology can never, indeed must never, be called a science. Scientism is a worldview that is at odds with Christianity, and Christians must never feel obligated to accept “facts” from that quarter without running them through a Christian worldview.
- b. We must inquire about where we stand if we assume a self-consciously supernaturalist stance - to say nothing of a biblical stance. Likewise, we must come to terms with how Systematic Theology communicates itself to an unbelieving world and how it is to be communicated to believers. What is its function? Does it describe reality? And if it does, how much of reality does it

describe? If it is a full-fledged worldview (which we believe it is by its very nature) how ought the implications of this affect the Church's thinking, mission, preaching, communication, and day to day living?

- c. How do we know that we are not operating within a "reigning paradigm" ourselves? One very important determiner of this is our appreciation for and knowledge and use of the theological resources of history – historical theology, or "tradition" in other words. We shall need an awareness of the assumptions of normativity that have been made. For example, Marsden inspected the operating assumptions of Charles Hodge and Benjamin Warfield in his essay "The Collapse of American Evangelical Academia"³⁶ This becomes a vital investigation in the case of dispensational theology, especially since it has continued mainly in the sociological environment of post-Deweyesque, post-WWII, therapy-soaked America. Is our hermeneutics and exegesis really unaffected by our cultural background?

When it comes down to it, every outlook on the world has to assume certain things; it has to have some idea of what is ultimately real. Whatever that ultimate reality is thought to be (e.g. Chance, Illusion, God) plays the role of the divine.³⁷ This, then in large measure organizes the world around itself, either allowing in or shutting out data according to how that data is found to fit the outlook. All non-biblical outlooks are idols. Only an outlook centered on the Triune God of Scripture can incorporate and successfully organize all the data. Thus, the biblical view of God in Creation, Fall, and Redemption should be our

invariable “reigning paradigm.” And this, we believe, simply cannot be fully accomplished without a biblical Systematic Theology.

¹ There were keen minded theologians in prior to the 20th century who saw that science, in the nature of the case, was in no position to take to itself the mantle of the touchstone of knowledge. W.G.T. Shedd, for example, noted that the determinations of science were provisional because it was both *a posteriori* and based upon contingent physical laws (viz. the universe might have been other than it is). Theology, since it images the mind of God, is more absolute. See William G. T. Shedd, *Dogmatic Theology*, Third ed., edited by Alan W. Gomes, (Phillipsburg, NJ: P&R, 1894, 2003), 53ff.

² This involved the Catholic Church’s reluctance to leave Aristotle rather than its adherence to the Word of God. See the helpful survey in William Edgar, *The Face of Truth*, (Phillipsburg, NJ: P&R, 2001), chapter 6.

³ The word was invented by William Whewell. Colin A. Russell, *Cross-currents: Interactions Between Science and Faith*, (Grand Rapids: Eerdmans, 1985), 191.

⁴ This sentence even found its way into a children’s book. See Nancey Pearcey’s chapter, “Darwin Meets the Berenstain Bears” in her book *Total Truth*.

⁵ For a fine critique of NOMA see Phillip E. Johnson, *The Wedge of Truth*, (Downers Grove, IL: IVP, 2000), 95-102.

⁶ Dawkins quoted by John Blanchard, *Has Science Got Rid of God?*, (Darlington, UK: Evangelical Press, 2004), 21.

⁷ *Ibid*, 26.

⁸ Phillip E. Johnson, *Reason in the Balance*, (Downers Grove, IL: IVP, 1995), 38.

⁹ We might more accurately say that the trouble is science undertaken with unbiblical presuppositions. See Bahnsen, *Van Til’s Apologetic*, 115.

¹⁰ See, e.g., William Lane Craig and J. P. Moreland, eds., *Naturalism: A Critical Analysis*, (London: Routledge, 2000).

¹¹ Alvin Plantinga, *The Dawkins Confusion*, a review of Richard Dawkins' *The God Delusion*, at <http://www.christianitytoday.com/bc/2007/002/1.21.html>. A fuller argument by Plantinga is to be found in his book, *Warrant and Proper Function*.

¹² A recent example of this trend is the book edited by Ted Peters, Robert John Russell, and Michael Welker entitled, *Resurrection: Theological and Scientific Assessments*, (Grand Rapids: Eerdmans, 2002). The basic thesis of the symposium is stated by Russell in his essay. As far as the universe is concerned, "the far future scenarios are still freeze or fry" (6). Whence, then the hope of resurrection?

¹³ Stanley Hauerwas, *Christian Existence Today*, 9.

¹⁴ See, e.g., Cornelius Van Til, *Christian-Theistic Evidences*, (Phillipsburg, NJ: Presbyterian and Reformed Publishing Co., 1978), 133-148.

¹⁵ Donald M. Mackay, *Human Science and Human Dignity*, (Downers Grove, IL: IVP, 1979), 16.

¹⁶ Notice should also be taken to a book by the scientist Anthony Standen, *Science is a Sacred Cow*, (New York: E.P. Dutton & Co., 1950). Standen's arguments (e.g. about the difficulty of proving scientific falsification) are both illuminating and amusing.

¹⁷ Thomas S. Kuhn, *The Structure of Scientific Revolutions*, (Chicago: Univ. of Chicago Press, 1962, 1970).

¹⁸ In this he is certainly not original. E.g., "For many years Van Til waged a lonely battle for these points but it is interesting to note how his arguments are being strengthened from some unexpected quarters." – David F. Wells, "The Theologian's Task," in Woodbridge and McComiskey, eds., *Doing Theology in Today's World*, 185-186. Wells cites Paul Ricoeur and Michael Polanyi.

¹⁹ Ian G. Barbour, *Religion in an Age of Science*, (San Francisco: HarperCollins, 1990), 59.

²⁰ John S. Feinberg, "Rationality, Objectivity, and Doing Theology: Review and Critique of Wentzel Van Huysteen's, *Theology and the Justification of Faith*," - *Trinity Journal* 10:2 (Fall 1989), 161-184, (168).

²¹ Vern S. Poythress, *Science and Hermeneutics: Implications of Scientific Method for Biblical Interpretation*, *Foundations of Contemporary Interpretation*, (Grand Rapids: Zondervan, 1996), 457.

²² Herbert Schlossberg, *Idols For Destruction*, (Nashville: Thomas Nelson, 1983), 26-27.

²³ See Poythress, 459; also William C. Placher, *Unapologetic Theology*, 47-49.

²⁴ Schlossberg, 27.

²⁵ Del Ratzsch, *Science and its Limits*, (Downers Grove, IL: IVP, 2000), 59-62.

²⁶ Imre Lakatos, “Falsification and the Methodology of Scientific Research Programmes,” in I. Lakatos and A. Musgrave, eds., *Criticism and the Growth of Knowledge*, (Cambridge: Cambridge University Press, 1970).

²⁷ Barbour, 60.

²⁸ Michael Polanyi, *Science, Faith and Society*, (Chicago: University of Chicago Press, 1946), 21.

²⁹ *Ibid*, 24-25.

³⁰ Michael Polanyi, *The Tacit Dimension*, (London: Routledge & Kegan Paul, 1967).

³¹ *Idem.*, *The Study of Man*, 23.

³² D. A. Carson, *The Gagging of God*, (Leicester: Apollos, 1996), 88.

³³ “We need reverence to perceive greatness.” – Polanyi, *ibid*, 96.

³⁴ One might add to this list the names of Norwood R. Hanson, Paul Feyerabend and Larry Laudan.

³⁵ Carl F. H. Henry, *God, Revelation and Authority*, 1.180.

³⁶ George Marsden, “The Collapse of American Evangelical Academia,” in *Faith and Rationality*, edited by Alvin Plantinga and Nicholas Wolterstorff, (Notre Dame: Univ. of Notre Dame Press, 1991), 219-264.

³⁷ For an in-depth treatment of this subject see Roy Clouser, *The Myth of Religious Neutrality: An Essay on the Hidden Role of Religious Belief in Theories*, (Notre Dame: Univ. of Notre Dame Press, 1991). Clouser is building upon the work of the great Dutch neo-Calvinist philosopher Herman Dooyeweerd and his identification and exposure of the “pretended autonomy” of secular man. See the first two chapters of Herman Dooyeweerd, *In The Twilight of Western Thought*, (Nutley, NJ: Craig Press, 1977).