

Science and the Bible¹

Rudolf Bultmann declares that "now that the forces and laws of nature have been discovered we can no longer believe in spirits, whether good or evil".² Being inconsistent he doesn't come to the conclusion that God doesn't exist. He also asserts that although science may change in some details its methods of thinking will never change again.³ He goes further and seems to suggest that the laws of motion are inevitable truths (unlike his thesis on the history of the Synoptic Tradition). As with his misapplication of 'myth' to NT studies, Bultmann, typical of so many liberal theologians, makes assertions which simply don't hold water. Scientific 'laws' are not inevitable and neither can they, by their very nature, prove or disprove the existence of God or the possibility of miracles.

The goal of science is clear - nothing short of a complete interpretation of the universe.

Science does much more than demand that it shall be left in undisturbed possession of what the theologian and metaphysician please to term its 'legitimate field'. It claims that the whole range of phenomena, mental as well as physical - the entire universe - is its field.⁴

It clearly asserts that the method of science is the only gateway to the whole region of knowledge. In essence it is a rejection in total of all non-denominational and non-experimental authority in the realm of experience. When no evidence is produced in favour of an assertion other than personal opinion, past or present revelations or the 'voice of God' the scientist will pay no attention whatsoever. "The scientist tries to rid himself of all faiths and beliefs. He either knows or he does not know. If he knows, there is no room for faith or belief. If he does not know, he has no right to faith or belief".⁵

I wish to propose and assert that Science can never discover or formulate a true description of natural processes in absolute terms. What the scientist, physicist does in his 'laboratory' method prevents him from ever discovering the truth.

After choosing a problem and commencing an experiment relevant to his hypothesis, the scientist soon takes a measurement. You could say that every experiment reduces to measuring the length of a line: it may be the length of mercury in a tube, a distance on a metre scale or the distance between two points on a dial, only possible of course if physical relationships can be representatively measured on a linear scale.

The scientist takes a reading and records it. He then repeats the experiment a tedious number of times. The reason is to minimise possible defects in the experimentation, but also it may be that the mercury or the steel dial is palpitating, constantly expanding and contracting in the universal flux. Who knows if a metal bar expands uniformly at all temperatures or at all times, even within very narrow temperature limits? I remember my Physics teacher, Dr. Garth Higginbottom, telling me how nobody actually knows if mercury actually expands or contracts uniformly with temperature. The whole thing is dependent upon relative functions, defined within statistical limits of error analysis. Can any experiment prove that a cubic centimetre of gold always maintains the exact same weight? The measurements always vary, and atomic weights are only average. If variations are haphazard then fixed, absolutes, are impossible to determine through Science.

Does the use of averages cancel out these inconsistencies and preserve the truth of physical laws? Having conducted the experiment a number of times, the divergent readings recorded, the arithmetic mean is calculated. Each reading is subtracted from the arithmetic mean and a mean of these deviations is calculated. This second mean is attached to the first and called the variable error (e.g. 8.67 ± 0.01). For simplicity we shall ignore the error analysis calculation for the apparatus used in the experiment. The complete process is repeated and a similar list of readings is recorded from tedious experimentation, over a different range.

The physicist now transfers these values to graph paper where they appear as small rectangles and through them he draws a curve. From this he determines an algebraic equation which corresponds to the curve, and announces this to the world as a law of Physics.

Suppose the resulting averages, in the simplest example, constitute three points (small rectangles in reality) on a graph which appear to lie on a straight line. The Physicist's law could then be represented by:

$$y = mx + c \quad (1)$$

These three points could equally lie on a sine curve, in fact by an infinite number of sine curves or any other curve for that matter. This is most easily demonstrated by drawing a straight line through a sine curve:

$$y = A \sin (bx + d) \quad (2)$$

This equation can always pass through three points determined by (1).

The method of science is "the persistent critique of arguments, in the light of tried canons for judging the reliability of the procedures by which evidential data are obtained, and for assessing the probative force of the evidence on which conclusions are based".⁶ Nevertheless, experimentation never discovers how nature works. Every law of physics is an equation and, if viewed as a description of natural processes, false. False in the sense that a law is indubitably unprovable; it may be called false because from a strictly mechanistic view, the chance of selecting the true mathematical description from all the laws observation allows is one in infinity - zero. Even Einstein, in talking of ultimate reality said, "we know nothing about it all. Our knowledge is but the knowledge of school children... We shall know a little more than we do now. But the real nature of things - that we shall never know, never."⁷ From this the further conclusion follows that Science can never disprove the truth of Christianity. It can never prove or disprove any metaphysical or theological assertion.

For an example of how a series of numbers can accommodate a large variety of equations, suppose we have two points on a graph: $x = 3, y = 9$ (where the experimentation stopped). The experiment must always end somewhere, for otherwise no time would be left to formulate a law. In this case the law could be:

$$y = 3^x \quad (3)$$

By extrapolation, for $x = 3$, the third point is predicted to be $y = 27$. In further experimentation the third point is in fact averaged at 19. Hence (3) is rejected and a new formula devised. The scientist has an infinite number of choices, two of which are:

$$y = 2x^2 + 1 \quad (4)$$

$$y = \frac{x^3}{3} + \frac{11x}{3} - 1 \quad (5)$$

This artificial example shows that in any theorising there are multiple possibilities for extrapolation. Every one of them describes the natural process equally well; that is, not one of them can be shown to be the true description. Hence every law of physics must be false for Science is always tentative, speaking in absolute terms.

This negative conclusion aims to emphasise that no metaphysical or theological conclusion is possible in scientific law. Though, as has been argued, that science cannot assert mechanism (determinism), it equally follows that neither can science assert indeterminism. We must also remember that there is a "danger in assigning ultimate philosophical or metaphysical meaning to the terms 'determinism' and 'chance' used in scientific descriptions."⁸

About 1930 Heisenberg convinced the world that if his experiments on particles used sufficient light to locate the object, its velocity could not be determined because the energy of the light itself affected the object, but how else can the object be located? From this scientific work Heisenberg went on to conclude that mechanism is false and indeterminism is true - his uncertainty principle. Is this a necessary influence though? The scientist's inability to construct an experiment that can determine both velocity and position surely gives no information on the still elusive laws of sub-atomic particles. The scientist's inability leaves uncertain whether nature is constructed of particles at all or whether it is a continuum (wave particle duality). The result is neither positive nor negative.

Some Christian apologists, although recognising that this result destroys all scientific arguments against miracles, may still defend scientific mechanism because of the second law of thermodynamics⁹. This seems to prove the doctrine of a creation in the finite past and disprove the doctrine of the eternity of the universe. However, if a series of points on a graph furnish an infinite number of equations from which to choose, the second law of thermodynamics, along with all other laws, becomes tentative and false.

Suppose a scientist for the brief moment of his life stands on the ocean shore watching the ebbing tide which changes (say) every three billion years. The water level drops constantly. He concludes that the tide has not been ebbing from eternity, for if that were the case the water would have reached its lowest level well before he came to watch it. However, he hasn't considered it a possibility that the tide rises as well as ebbs.

The 'thermodynamic' scientist has watched some energy system, few in number, and at most for the period of only a few lifetimes. He has seen the ebb without having seen an incoming tide. He sees his points on a graph as a straight line - but they could equally lie on a sine curve.

If science is always false what value can it have? It has put a man on the moon and discovered (very recently) that the universe, at present, forms a giant lattice requiring a force other than gravity to explain its formation. ("God is found in the laboratory, but only by the most serious of scientists."¹⁰). It has also told us the Hydra Nebulae's velocity (38 000 miles/second).¹¹ The answer is that a law need not be true in order to be useful. The theory

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that electromagnetic fields exist is denied by a number of scientists, but no one denies that this false theory greatly advanced the utilisation of electricity. Again, in modern experimentation with high speed collision of protons and the resulting sub-atomic particles, results have had led some top nuclear scientists to doubt the existence of electrons. Maybe the model of the atom has to change, but electron microscopes need not.

Science is forever incapable of producing a valid argument against the existence of God, the occurrence of miracles, including supernatural revelation and life after death. It is incapable either positively and negatively to make any metaphysical or theological pronouncement.

"The process by which scientific knowledge is derived [is] subject to the ethical principles held and practised by those involved".¹² Science will only find its legitimate function in demonstrating the law-abiding character of nature in harmony with Scripture's testimony. Science can be misused if "it is employed as a springboard for philosophical speculations and stances such as the 'theory of evolution', 'scientific humanism', and 'materialism'".¹³

Absolute truth can only be known by revelation, it can only be received by faith and faith comes by hearing the Word of God. Scientists will not be afforded the opportunity of Thomas who wished to conduct scientific observations on the body of Jesus (John 20:25). They must bow the knee and believe without seeing.

Theology is still the Queen of the Sciences, it surpasses them all by the revelatory knowledge it alone possesses, He alone is God over all, forever blessed. Amen.

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¹ This essay represents a précis of Gordon H. Clark's book *The Philosophy of Science and Belief in God*. Jefferson: The Trinity Foundation, 1987.

² R. Bultmann, *Kerygma and Myth*. New York: Harper & Brothers, 1961. p.4.

³ R. Bultmann, *Jesus Christ and Mythology*. New York: Scribners, 1958. pp.36-38.

⁴ Clark, 103.

⁵ Clark, 104.

⁶ C.A. Russell, *Cross Currents. Interactions between Science and Faith*. Grand Rapids: Eerdmans, 1985. p.17.

⁷ Albert Einstein, quoted in Clark, 108.

⁸ R.H. Bube, 'Science & Christianity', *ISBE*, Vol. 4. Grand Rapids: Eerdmans, 1988. p.355.

⁹ H.M. Morris, & J.C. Whitcomb, *The Genesis Flood*. Grand Rapids: Baker, 1961. pp.223-227.

¹⁰ Levitt, Z. *Creation: A Scientist's Choice*. (California: CLP, 197?) 80.

¹¹ A. Custance, 'Science and Faith', *Doorway Papers*, Vol. 8. Grand Rapids: Zondervan, 1978. p.18.

¹² Osmond, D.H. 'Science', R.K. Harrison, ed. *Encyclopedia of Biblical and Christian Ethics*. Nashville: Nelson, 1987. p.365.

¹³ E.H. Andrews, 'Nature and Super Nature', N.M. de Cameron ed. *In the Beginning...* Glasgow: Biblical Creation Society, 1980. p.48.