

THE CORRECT APPROACH TO SCIENTIFIC THEORIES*

APOSTOLOS CH. FRANGOS**

Received 3 August 1990; Revised 29 October 1990

Abstract

Intermixing of philosophical and metaphysical doctrines with empirical science poses an important problem, since such doctrines are often presented as scientific theories, which finally adulterates science itself. It is necessary to determine the criteria which distinguish science and metaphysical assumptions and therefore to evaluate the real essence and character of hypotheses and theories proposed as scientific ones. The problem appears in the explanation and interpretation of natural events. If the explanation offered is subject to a scientific test, then it is scientific. Otherwise, it is a philosophical or metaphysical assumption which cannot give any scientific knowledge. Empirical scientific testability is the only basis to determine and separate scientific theories from metaphysical adoptions.

Introduction

A very important problem appears in the empirical sciences when metaphysical and philosophical doctrines are involved. The identity of scientific data collected by scientific researchers with *a priori* metaphysical beliefs, distorts the character of empirical science and gives the impression that the conclusions derived accordingly are scientific facts. In this way, science becomes a means to propagate metaphysical

*Editor's Note: Readers interested in previous discussions on a philosophy of science from the Quarterly may consult the following selected bibliography.

Ancil, R. E. 1985. On the importance of philosophy in the origins debate 22: 114-23; Armstrong, H. L. 1970. One faith against another faith. 6:189-90; 1974. On the distinction between religion, philosophy, science and history. 11:10-13; Barnes, T. G. 1964. Superiority of scientific approach that accepts its limitations and makes use of Scripture. 1(1):56; Bergman, J. 1983. What is science? 20:39-42; 1986. Metaphysics 22:203-204; Ferst, B. 1983. What Bible-scientists can learn from Bible-science. 20:116-20; Garrido, J. 1970. The theory of evolution and the limitations of human knowledge. 6:185-87; Hall, M. and S. Hall. 1984. Evolutionism is not science: period and paragraph. 21:155-56; Herrmann, R. A. 1984. The Word. 20:226-29; Holroyd, H. B. 1973. Natural theology is a scientific study. 10: 158-62; Howe, G. F. 1985. Keeping our models separate—Biblical creationism distinct from creation science. 22: 141-42; Ingram, T. R. 1974. Can there be true science without true religion? 11:6-8; Jones, A. 1971. The nature of evolutionary thought. 8:44-49; Klotz, J. W. 1966. The philosophy of science in relation to the concepts of creation vs. the evolution theory. 3(2):3-12; Kofahl, R. E. 1986. Correctly redefining distorted science: a most essential task. 23:112-14; 1989. The hierarchy of conceptual levels for scientific thought and research. 26:12-14; Korthals, R. G. 1965. There was evening—there was morning. 2(2):6-14; McGhee, L. A. 1980. Gracious science and interfering science. 17:110-11; 1982. Comments on "An estimate of the current status of evolutionary thinking" by John N. Moore. 19:195-96; 1987. The metaphysics of modern science. 24: 138-41; Mennega, A. 1972. A Christian biologist's reflections on the scientific method. 9:30-31; Moore, J. N. 1971. On evolutionists and their cloak of ideas: a parallel. 8:76-77; 1974. Some definitional formulations. 11:3-5; 1982. An estimate of the current status of evolutionary thinking. 18:189-97; Morris, H. M. 1971. Proposals for science framework guidelines. 8:147-50; Myers, E. 1987. Aristotle and creationism: a comparison. 24:5-9; Ouweneel, W. J. 1971. The scientific character of the evolution doctrine. 8:109-15; Riemen, W. P. 1987. The non-material hypothesis and its implications for modern science. 23: 141-45; Schoepflin, G. L. 1972. On assumptions and their relation to science. 9:12.5-29; Smith, B. A. 1985. Science and Scripture. 22:96-97; Tinkle, W. J. 1976. The reign of law. 13:44-46; Wiant, Jr., H. V. 1972. A philosophical note on creationism. 9:171, 198; Williams, E. L. and G. L. Mulfinger. 1974. A Biblical framework for a course in physical science. 11:8-10; Williams, E. L. 1976. A creation model for natural processes. 13:34-37; Wolfrom, G. W. 1975. Evolution, science and religion. 12:84-88.

**Apostolos Ch. Frangos, BS, BA, 43 Ellanikou Street, Athens 11635, Greece.

doctrines and often political aims. It is necessary to emphasize this problem and make a sharp distinction between scientific evidence and data, and the philosophical and metaphysical adoptions of any individual scientist involved in scientific research. Such confusions decrease the objective validity of science.

Necessary Distinction

Although such a distinction is fundamental for true scientific progress, it is difficult to discern this intermixing. The strong inclination to understand the natural world on one hand, and on the other hand the limitations in knowledge of natural events, easily leads the researcher to intermix scientific findings with personal metaphysical and religious belief. This happens when the researcher interprets the data available to him. At this point is concentrated the whole problem. Science, in an empirical attempt to learn as much as possible about the natural world, uses our five senses.

Science is built upon several assumptions: Our self-consciousness, the order of the natural world, the validity of the laws of logic, and the validity of the law of universal causality. We assume certain principles that seem to require no proof, but are recognized through common sense since they are not subject to scientific tests (Frangos, 1986).

Restrictions

Science, in addition to the preceding basic principles, is also subject to some further limitations. Most of them have an objective character, that is, they exist independently of individual researchers. Some restrictions are: the methods used in scientific investigations (Popper, 1983); the inability to explain the origin of things by observation, the inability to deal with singularities, the limitation of measurements (Medawar, 1985, Trusted, 1979), etc. In addition, there is one further limitation which is subjective in character, and the most important. It is the dependence on the individual researcher and the possible intermixing of objective scientific findings with philosophical and metaphysical postulates. By such a confusion of scientific data with metaphysical indoctrination, science becomes not an objective research, but a means of propagating personal belief.

Interpretation of Data

Scientists not only try to describe natural events and their interactions, but also try to explain why events

happen. Explanations usually are attempted by hypotheses, formulated to give a deeper understanding both to a single natural event and also to the natural world as a whole.

To explain a natural event, we must be able to describe the causal mechanisms which are responsible for it (Powers, 1982; Bohm, 1984). Nevertheless, it is not always possible to proceed deeper into the natural events beyond boundaries raised by the existing scientific restrictions. Instead of accepting the limitation, many scientists intermix scientific data with their metaphysical assertions. As a result, the same data may be interpreted in equally different logical ways (Harre, 1983). The same event may be given different, equally attractive explanations, while neither can be proved or falsified scientifically.

An example occurs in the theory of evolution. The same data can also be interpreted within a creationist framework. The theory of evolution, like many other theories, depends not on the reliability of the data used, but on the subjective interpretation given within the metaphysical assumptions held by the researcher. Clearly, reported data and human knowledge are not the same thing. Data do not speak for themselves: they must be interpreted. They often say what the individual wants them to say. This is why the theory of evolution is not a true scientific theory.

Regarding the argument that the naturalistic explanation is scientific and the creation approach is religious, it must be emphasized that the determination of a theory as either scientific or religious, does not depend on the assumptions used (natural mechanism or supernatural), but on the testing of the theory in a scientific empirical way.

Conclusion

If a theory is not subject to an empirical scientific test, then it is not scientific and it is outside of the

domain of science. It is beyond human capability to verify or falsify it, or to give any scientific reply. I therefore believe that creationists should not try to oppose evolutionary theory with a scientific creation model. Instead, we must interpret all available data on the basis of the Creation doctrine in Scripture. It is unacceptable to let evolutionists deceive mankind by presenting their metaphysical/religious adoptions as scientific fact.

We must keep in mind that neither evolution nor creation models are true scientific models. They are metaphysical explanatory propositions, and the acceptance of one or the other depends upon the preference of each individual person and not on objective scientific conclusions, even if they are presented as tentative. This should be an important message that creation science offers. It has an immediate priority to separate each person from his illusive prejudices, and hence to gain the freedom of his thought.

References

- Bohm, David, 1984. Causality and chance in modern physics. Routledge and Kogan Paul. London.
- Bunge, Marie, 1984. Causality and modern science, Dover Publications. New York.
- Frair, Wayne and Persival Davis. 1983. A case for Creation. Moody Press. Chicago.
- Frangos, Apostolos. 1986. The great delusion. Proceedings of the First International Conference on Creationism. Volume I. Pittsburg, PA pp. 49-51.
- Harre, R. 1983. The philosophies of science. Oxford University Press. London.
- Medawar, Sir Peter. 1985. The limits of science. Oxford University Press. London. pp. 59-86.
- Popper, Karl. 1983. The logic of scientific discovery. Hutchinson. London.
- Powers, Jonathan. 1982. Philosophy and the new physics. Methuen. London. pp. 41-43.
- Trusted, Jennifer. 1979. The logic of scientific inference. The Macmillan Press. London.

SYMPOSIUM ON VARIATION—IV**

A REFINEMENT OF BIOSYSTEMATICS WHICH REFLECTS BARAMINIC VARIATION

PAUL A. BARTZ*

Received 1 October 1990; Revised 12 November 1990

Abstract

Life on earth exhibits discrete gaps between kinds of creatures supportive of the creationist position. But life also displays variation, a trait which has traditionally, but incorrectly, been seen as supportive of the evolutionary interpretation. A combination of these and other factors, notably the remarkable creativity in the use of traits, sometimes without an apparent organizing system, makes biosystematics difficult for both the creationist and the evolutionist. Creationists may now be poised to offer the first truly objective biosystematics which is acceptable to both sides of the origins debate. Such an eventuality would radically change the nature of the origins debate.

Introduction

Biosystematics has been a problem area for both creationists and evolutionists ever since taxonomists first tried to group systematically the prodigious diversity of life on earth. Biosystematics would face an

entirely different set of problems if there were a smooth and imperceptible gradation between living things, as would be expected by the evolutionary interpretation of nature. That problem does not exist.

Gaps and Variations

Life, both living and fossil, displays distinct gaps which invite the effort of classification. However, biosystematics is complicated by the almost unbounded

*Paul A. Bartz, M.Div., Communications Director of the *Bible-Science Newsletter*, Bible-Science Association, P.O. Box 32457, Minneapolis, MN 55432.

**Parts I-III are in *CRSQ* 27:144-153.