

FAITH AND THOUGHT

VOLUME 112 ● NUMBER 1 ● APRIL 1986

*A Journal devoted to the study of the inter-relation of the
Christian Revelation and modern research*

GENERAL EDITOR: Dr. A. B. Robins



Published for
THE VICTORIA INSTITUTE



by
THE PATERNOSTER PRESS

Fergus McInnes

God and the Ordered Universe: a computer software analogy

It was interesting to find, in a recent issue of *Faith and Thought* and the accompanying Newsletter, two articles, one by David Pusey¹ and one by R. E. D. Clark,² expounding different theories of the way in which God relates to his universe.

David Pusey develops a model of creation as a frame-by-frame projection from the mind of God. According to this model, God is continuously active as Creator, creating anew the state of the universe at each succeeding moment of time, rather as the maker of an animated film draws all the individual frames and projects them in rapid succession. The laws of physics that describe the events in the film are not built into the process of its creation, but are maintained by the specific decisions of the artist on all the details of the picture at each frame. 'The rational universe in which the scientists presume that we live is so, only for as long as God continues to act rationally, maintaining the apparently unbroken sequence of events.'

R. E. D. Clark refers to a view similar to the above, but argues against it on Biblical grounds ('the Scripture makes it clear that God has implanted laws in nature and it seems to be implied that these laws operate on their own'), and on the ground that 'if God is acting all the time directly and in every event' he must be 'a Being who is concerned in the main with trivialities' and 'to hold such a view of God is to depersonalize him'. In his contribution to the Victoria Institute's 1985 Annual Conference,³ R. J. Thompson quotes J. Houston,⁴ who likewise cites scriptural evidence for a finished work of creation followed by a distinct work of 'providence' or 'upholding'.

For the reasons given by Clark and Houston, I prefer this latter view, and I propose an analogy, drawn from my own field of work with computers, which may be helpful in elucidating the several modes of God's interaction with the universe as Creator, Upholder, Worker of Miracles and Incarnate One.

1. David Pusey, 'Creation as frame-by-frame projection from the mind of God', *Faith and Thought*, 1985, 111, pp.75-80.

2. R. E. D. Clark, 'Two views of God and his world', Newsletter of the Victoria Institute, no. 1, April 1985, pp.9-13.

3. R. J. Thompson, 'The Theology of Nature in the light of Creation, Fall and Redemption', *Faith and Thought*, 1985, 111, pp.145-160.

4. J. Houston, 'I Believe in the Creator', pp.106-7, 1979.

Consider all the particles of the physical universe as data stored and manipulated in a very large computer. Events involving these particles can then be thought of as processes running on the computer. The computer incorporates parallel processing, so that many movements and transformations of data can be occurring in it at the same time.

As Creator, God has loaded in the computer's initial data (assuming that the universe has a beginning in time—or at least something like a beginning in time: for time itself may be a created thing). He has also programmed in the 'system software' (what we know as 'laws of nature') by which the processes are co-ordinated. (Presumably he has also built the machine itself—though it is not clear what, if anything, this represents in the analogy.)

But God's involvement with his universe does not stop with creation. (That would be the position of a deist.) He also 'upholds all things' (Hebrews 1:3). This activity, which has often proved difficult to integrate with an understanding of the universe as having laws built into it, can be envisaged as his providing the power supply to the computer. This is a continuous activity, without which the universe would cease to exist (at least as an ordered system), as the information and processes in a computer are lost when its power is turned off. But it is also a simple activity, in that it does not involve giving individual attention to all the details of the processing at each moment—unlike the highly complex activity required of the artist in the 'frame-by-frame projection' model. The rules of the system software, once programmed in, take care of the details—but only so long as the system is 'upheld' by the power supply. These rules provide a complete account of the normal behaviour of the system at the software level; but that level is dependent for its continued existence on the continuance of the power supply at the hardware level. (It is an essential feature of this analogy that the material and events of the physical universe correspond entirely to entities (data and processes) at the software level, not the hardware level: it is this distinction of levels that expresses the relation between the scientific ('software') and theological ('power supply') answers to the question 'What keeps the universe going?')

Furthermore, as the 'system manager' of the universe, God from time to time provides input to it. On these occasions the course of events cannot be explained completely in terms of the normal rules and the data already in the system. (But what happens to the 'miraculous' input thereafter is determined by the system's rules in the usual way.) Such instances match the definition of 'miracle' adopted by C. S. Lewis in his treatment of the subject.⁵

Human beings, and other conscious created beings, can be thought of as users of the system. They are logged in at computer terminals, and can interact with the system at the software level, inspecting and (within the limits imposed by the system software) manipulating data. (Alternatively, they can be considered as highly complex 'artificial intelligence' programmes running within the system. Which of these variants of the model one prefers will depend on one's view of the nature of the soul (self or conscious being) and how it relates to the brain, the body and the material world at large.) They can deduce the rules embodied in the system software by observation and experiment; but they cannot by these means deduce anything about the hardware that supports the system or about its power supply. For information on these subjects, and on the origin and purpose of the whole system, they are dependent on messages or documentation from the system manager. (His sending such messages comes into the category of the 'miraculous'.)

In this analogy, the devil is a 'hacker' who is at work to lead the users astray and alienate them from the system manager. He has so far succeeded that many of the users do not recognise that there is a manager, and others have distorted ideas of his character and intentions. This has various consequences which are contrary to the purposes for which the system was designed and harmful to its users. To undo the damage, the system manager has chosen to log in for a time as an ordinary user. When he did this, he also remained logged in as the system manager with his special 'superuser' status and powers. As the ordinary user, he was then able to demonstrate to the other users the existence and nature of the system manager by communicating with him and calling on his power. (This possibility of multiple logins by the same person under different names provides an analogy, though of course an incomplete one, for the unity and differentiation in the Trinity.)

A possible objection to this analogy is that it appears to treat the laws of nature as prescriptive (miracles excepted) rather than descriptive, and deterministic rather than probabilistic. However, it can be answered that it is quite possible to conceive of a computer with randomness built into its operating system, and that even where the laws by which the universe actually operates are (barring miracles) prescriptive we may have only an incomplete concept of them, derived from limited observations, which must be treated as descriptive. (In real life, most users of computer systems work with mental images of the system software which are only rough approximations to the reality!)