Science, Heresy and the Challenge of Revolutionary Ideas

Network May Dialogue held at Colet House

Report by Roger Taylor

PETER FENWICK opened the meeting from the chair with a reminder of how the present assumptions of science have been canonized, and that science exists in its present form only by the unquestioned exclusion of consciousness. BRIAN GOODWIN has over many years been mounting a Challenge to Darwinian Orthodoxy. While careful to point out the continuing validity of Darwin's theory in general, he focused on its main defect: the assumption that organisms are collections of independently variable parts. Since then, the further reduction of the organism has been greatly nourished by the concept of genes, which are now seen as the very cogs of the machine. Of course the general thesis that genes influence the way the organism develops is beyond question; what is challenged is the assumption that the genes actually generate the basic living forms - the amazing order of the living state itself. An organism is not explained by its genes; rather it employs them as a memory system for its own purposes. Passing on to the evolutionary record, Brian outlined the evidence against Darwin's gradualist assumption. The puzzling sudden appearance of new species (now confirmed by many evolutionists) becomes easier to accept when it is seen in the light of the science of complexity. Thus from the study of simple non-linear dynamic systems we can understand how the generation of order is a natural characteristic of the universe. Such ordered patterns are holistic in that they are a function of the collective action of their atomic units, and cannot be explained by the properties of the units in isolation. In evolution, as in these simple dynamic models, the patterns arise with their own logic, so that out of the infinity of possible forms only certain types are permitted. This goes against the common assumption that random variations could produce any bug-eyed monster so long as it adapts to its environment. To promulgate this message is not an easy job - as I have found when trying to defend it in conversation with biologists. This is because the case depends as much on the development of qualitative perceptions of wholeness, as it does on proofs derived from quantitative data. This is the neglected message of Goethe's science: that some forms of understanding, which can yet be called scientific, require us to develop our mental 'organs' of perception, so as to see holistic qualities in organisms and other aspects of nature, just as we see them in a person. Once appreciated, this will hopefully lead us to a more reverential approach to science, and open the way to a resanctification of nature.

Speaking on Superstition or Liberation: Heretical Ideas and the Physical Sciences, CHRIS CLARKE asked what kinds of fear motivate the 'Grand Inquisitor' to condemn the innovator. There is the real fear of external threats: ridicule, loss of job and power, and exclusion from 'the club'; and also an internal fear of darkness: of slipping back from the hard-won position of knowing, to one of doubt, and so finding one's life work set to nought. He quoted some shibboleths in physics, which are maintained by such fears, in spite of good reasons to reject them. The time has clearly come for the scope of science to be widened in a number of ways. Chris warned, however, that this must be done with integrity. The scientific method cannot be discarded, à la Feyerabend. We still need verification of some sort, and as science expands to include more and more of what has previously been considered subjective, so we will need to invent new forms of verification. Both the establishment and the heretics can be guilty of lack of integrity. For example, although an anomaly has clearly been revealed in so-called cold fusion, the establishment has rejected it because it cannot (yet) be explained.

The integrity of heretics is most often at fault (assuming their experiments are impeccable) when they claim that their anomalous results are supported by established theories. But of course there is a grey area here over just what is considered to be established. Present-day physics, which is derived from the study of non-living matter, is clearly inadequate to cope with life. Chris predicted that a new physics of life will arise, and in its turn become the new orthodoxy.

Genes run the cells, but who runs the genes? Completing Biology with the concept of Health. PETER MANSFIELD challenged the axiomatic framework of modern medicine that biochemistry can explain the whole person. He outlined a model of ontogeny which accorded an internal life to cells. The cells look for 'ease' in relating to each other in such a manner as to make a larger whole. This is the basis of bionomic order, which can be equated with beauty. A field concept of some kind is necessary - even if we never understand it in detail. The health of an individual is maintained by levels of control. Thus the basic 'factory' functions are under the care of the primal adaptive system (nervous, humoral and immunological), and this is kept in order by psychic functions such as emotion, will and thought. By attention to illness at the appropriate levels, in the holistic practice which Peter runs, it has been possible to cut the drugs bill by 40 per cent. Peter's practice forms an experiment in community medicine, in which payment is by regular subscription rather than by consultation. It is a real health service, where the NHS might be called a 'disease service'.

ARTHUR ELLISON spoke on The Unenunciated Paradigm: Science as Scientism. Calling on his considerable experience in parapsychology, he mentioned several types of paranormal effect (including impressive recent ganzfeld experiments done in Edinburgh) which are now beyond any reasonable doubt. The reality of the 'paranormal' is on the way to acceptance. Perhaps less easy to accept is the evidence (also beyond reasonable doubt) for the effect of the beliefs and expectations of those involved - both experimenters and subjects. Arthur elaborated on this to support an idealist (indeed almost a solipsist) viewpoint, in which the whole objective world is a mental construct - the Maya of Vedic thought. In accordance with this view, our perceptions of the world vary depending on our state of consciousness. What we now call science has been obtained in the state of consciousness typical of educated adults in the Western world. This has given rise to the unspoken paradigm enshrined now as scientism. But another paradigm is required to make sense of experiences obtained in other states of consciousness. Research in this area is beginning to yield impressive results. Just to give one example: in hypnotically induced out-of-body experiments, a number of subjects have succeeded in obtaining information not otherwise available to them. There is no doubt that a new chapter in science is being opened: one which includes consciousness. In many ways an inspiring conference (it inspired me to write for my parish newsletter!) but there was too much agreement to make for an exciting dialogue. A throwaway comment by Chris to the effect that a wave function is not an experience, but a mathematical device to patch together the macro- and micro-worlds, left me to think that this may be why quantum theory seems to lack meaning, and then to wonder what is the meaning of meaning. Would this make a dialogue?