

ON SCIENTIFIC DOGMA

by Stewart Miller

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VERY often we hear from people engaged in the study of UFOs, and all too frequently from people who are merely inactively interested in the subject, complaints about, and condemnations of, the "dogmatic" and narrow-minded attitude of the scientific community towards our subject. The thesis put forward here will be that these views are erroneous, that they arise from a misunderstanding of the workings of the scientific community, and that the concept of "scientific dogma" is no longer relevant to the description of the present attitude of scientists towards new hypotheses. For the attitude of science to new discovery has altered drastically in recent years, and it is this change which has shattered the ability of conventional scientific wisdom to sustain dogmas.

Nowadays there are so many scientists engaged in new research, whether they are sponsored by governments or private sources, and the cost of basic research is so high, that scientists find it essential to keep in contact to avoid excessive duplication of work. There is nothing worse than to spend millions on research and to find that it has already been done. Hence there has developed a surprising degree of co-operation and communication between scientists both nationally and internationally.

A scientist who has made some significant discovery or advance in basic research feels obliged to publish his result—firstly for the purely egotistical reason of gaining recognition for his efforts, and secondly so that none of his scientific colleagues will unwittingly duplicate his work. Hence, he will expect to be done by as he does, and he will keep his eyes on all other papers published in his own field of study, in case one comes up which bears on that field.

So far no comprehensive paper on the subject of UFOs has ever been published.

The nearest approach to this is most certainly NICAP's *The UFO Evidence* which sets out its information in an ordered and logical fashion. However, this publication is written for the general reader rather than for the overworked scientist, who wants to see quantitative data rather than abstracts from witness reports, and reports of qualitative physical effects as opposed to quantitative measurements. Further, it is written from a committed standpoint (i.e. that UFOs are definitely interplanetary spacecraft) which is bound to bias the selection of evidence.

"What new scientific knowledge, if any, can be gained from the study of UFOs? So far . . . no UFO has revealed information that would be of concrete value to science. UFOs remain only as a weird challenge to the scientific imagination."¹

This is the brunt of the problem. A scientist is only interested in a phenomenon if it just happens to arouse his curiosity. So far UFO research has been a parasite subject. Although it has to thank various branches of science (notably special senses psychology, optics, electronics and meteorology) for knowledge which has helped explain certain sightings, UFO research has notably failed in 20 years of existence to provide even one verifiable advance in scientific knowledge. Hence any scientist who is interested in the subject will be so purely out of human curiosity. If a scientist is asked to give his opinion on the subject of UFOs, the value of his opinion will be directly proportional to the amount he has read on the subject. If he has read none of the evidence, his opinion will be worse than useless, for he will be a busy and very preoccupied man, and his only impressions will come from the very scanty reading of the newspapers. Such is the spectacle of Prof. Bernard Lovell, who last year produced such gems as "UFOs are purely American phenomena", and "no trained observer or astronomer has ever reported such a sighting".² Lovell obviously does not know the first thing about the subject, and it would be better if he'd admit it. On the other hand, however, the opinion of a scientist who has looked at the evidence in an unbiased way is of very great value, because he will be able to observe inconsistencies and sort out the most relevant information. After all, a scientist's whole work hinges around the handling of evidence, the sorting out of relevant from irrelevant data.

The proviso that the evidence must be looked at in an unbiased way brings us to the crux of the matter. It is the popular belief held by the more vociferous of our number that the "scientist" is by definition ultra-conservative, and not prepared to accept new views that conflict with his own. The brand-name for this effect in the aggregate is "Scientific Dogma". This misconception has arisen, and it is time it died a natural death.

Firstly, most of the so-called resistance to new ideas' falls under the category of the behaviour of people whose only knowledge of the subject comes from a cursory reading of the Press—and as the subject has always been treated as a "silly-season" subject, we can hardly blame anyone for thinking there is nothing in the subject worth serious consideration.

Secondly, it has often been the practice of reporters to ask for "Expert Opinions" from scientists, either on a particularly good sighting, or in a general discussion on the subject. When asked to express an

opinion on UFOs, a scientist will tend to take a moderate line, for, although there are obviously reports which are at present unexplainable, there is as yet no definite physical evidence that UFOs are interplanetary spacecraft. Those who reach this conclusion must do so by subjective interpretation of sighting and landing reports. However, it is very much more difficult to defend a moderate than an extreme position in a public argument or discussion, and this fact can be taken advantage of by those holding more definite views. (note 3) So, once having been drawn into the discussion, a scientist finds himself driven, in order to balance the extremists' claims, to defending a more sceptical viewpoint than he would like. The most obvious example is Dr. Menzel, whose views have too often been taken as representative of the scientific position as regards our subject.

The third category of behaviour which has come to be equated with "Dogma" arises as follows. If we are putting forward a hypothesis about the behaviour of UFOs (e.g. about their propulsion, geographical incidence or the nature of their 'occupants') then this hypothesis must be logically argued. A scientific hypothesis consists of a set of axioms which are logically worked out. If the axioms are not self-consistent, or they are not worked out logically (and this process is usually best expressed in the special form of logic which is mathematics) then the theory is useless as a description of a phenomenon. Many theories have been put forward about some aspect of the UFO phenomenon, and very few of them

have satisfied these two basic requirements. It is folly to equate the rejection of a hypothesis which fails to satisfy these two requirements (and the most common shortcoming has been in data handling, i.e. some bias in the handling of statistics) with a rejection of the axioms upon which the theory was built.

Scientific theories used to be rejected because their axioms were unacceptable in some way, often because they conflicted with contemporary philosophical, ethical or theological ideas, or often because they conflicted with everyday experience—'common sense'. For reasons which I will not deal with here, science has divorced itself from these various subjective value judgments. The divorce from everyday experience is especially obvious in the results of the relativity theory and the quantum mechanics. So if we speculate in our sphere of UFOlogy, we should not make the mistake of thinking that our form of speculation is anything new. In fact some of our departures seem tame compared with those of modern theoretical physics. By all means let us speculate, but if we cannot express our speculations within a coherent and consistent framework, our effort has been wasted, and we must not level accusations of narrow-mindedness at those who point out our mistakes.

NOTES

- ¹ Lloyd Mallan, *Science and Mechanics*, December 1966, pp 31-32.
- ² Agency report. Sir Bernard Lovell speaking to Cerritos College, Los Angeles. Quote from *Cambridge News*, April 25, 1966.
- ³ Robert H. Thouless, *Straight and Crooked Thinking* Chapter III: "Some dishonest tricks in argument"

The Velikovsky Affair—Orthodox Reaction at Work

by K. Mossman

DR. IMMANUEL VELIKOVSKY published a best-seller in the United States in 1950. It was called *Worlds in Collision* and it was followed by *Ages in Chaos* and *Earth in Upheaval*.

Velikovsky, Russian by birth and a psychiatric specialist by profession, had gone to America in 1939 to do research in material for a book which was to involve the analytic study of the Pharaoh Akhnaton, Oedipus, and Moses. The story of Moses led him to consider the whole narrative of the Exodus,— of the Plagues of Egypt, the dividing waters of the Red Sea, the pillars of smoke and flame. He embarked on a new line of research that has lasted until to-day.

An intensive study of ancient sources, of early astronomical records and of universal legends and folklore brought him to a revolutionary concept: that vast and sudden changes have taken place in the Solar System within historical times, and that these have twice resulted in world-wide catastrophe in the last 4000 years. Such ideas were naturally ill-received by the orthodox, and it is this fact that has led to the latest chapter in the Velikovsky Saga. It is a chapter very relevant to the study of UFOs, for it illustrates the lengths to which scientific orthodoxy will go in its war on the heretic.

In 1963 a U.S. sociological journal, *The Behavioral Scientist*, devoted an entire issue to the

attitudes of the Establishment to Dr. Velikovsky and this symposium has now been published in book form over here (*The Velikovsky Affair*: Ed. Alfred De Grazia, Sidgwick & Jackson, 21/-). It is a depressing, even horrifying, account.

The trouble was that Velikovsky could not be simply ignored as a crank. He is a scholar of wide attainment with scientific qualifications; therefore he became the object of a deliberate campaign of misrepresentation and suppression. Ridicule and misquotation, humorous articles by astronomers who had not even read his books, the silencing of his few defenders and the denial of his right to publish in learned journals by the ruthless use of academic patronage, the blackmail of publishers by the threatened withdrawal of orders for their textbooks; these are some of the methods used over many years. The book describes and analyses them. It deals too with other aspects of the case, tracing the institutional networks of power that reserve appointments for the spotlessly orthodox and can even force the resignation of those who fail to toe the line.

Familiar names occur in the record. Dr. Donald Menzel comes out badly, discourteous in argument and inaccurate in fact. But Velikovsky is still going strong. He has two more books nearing completion. Implications of his theories which looked fantastic