Letters

So I challenge Science: Find the body

UFO's: Irrational Public Debates

Science seems to share with Look and others an infatuation with controversy when it surrounds the persons of scientists, their admirers, or their critics, but I wonder if Science is losing its concern for science itself. Concerning the UFO study being conducted by E. U. Condon, your reporter seems to have unearthed every administrative problem, and every disgruntled person ("UFO project: Trouble on the ground," 26 July, p. 339). Scientific reputations are editorially assigned to the characters in this drama from the privileged position of Science's noninvolvement in the basic issues. But where is the reporter's curiosity about the UFO's themselves? I fear Science has confused the medium with the message.

Is there any evidence that measures up to contemporary standards of scientific credibility that some UFO's have an origin outside the realm of natural law as we know it or have any association with intelligent beings other than those on this planet? Do UFO's imply a potential threat to our national security? Should the scientific community tell the Congress, as McDonald would have us do, to invest a NASA-sized effort in their investigation?

The public does not understand the lessons learned by centuries of hard experience that the mental discriminator for distinguishing evidence from mysterv and truth from falsehood must be set at a level above the random noise of our experience. Unable to judge on a scientific level the reports they read about UFO's, laymen (and, alas, some scientists) make their judgments on the basis of reactions of commentators on the scientific scene to claims of participants in controversy. On the "Where there's smoke, there's fire" theory, many conclude that solid evidence must exist concerning the extraordinary nature of UFO's, evidence that is either being suppressed, ignored, or saved for later announcement by Condon.

of evidence that says that there is positive evidence (not proof) that the nature of some UFO's is sufficiently extraordinary to be deserving of the serious attention of the scientific community that UFO buffs demand. Referee the paper and print it as a technical article in the magazine. Readers will be satisfied by the standards of evidence represented in the professional reputations of your editorial board. If there is no such evidence (and I don't mean arguments that say if you do this or that, you might stumble on evidence), then have the courage to draw the necessary conclusion and help everyone give this problem the priority it would deserve, along with water witching, ESP, and astrology. Of course Science will protest that

my challenge is unreasonable; you haven't seen Professor Condon's report. You will tell me indignantly that Condon wouldn't talk to your reporter about his results. True. Neither would any other responsible investigator who has not finished his work. So why not withhold your harassment of Condon until the report is done? Then judge the results on technical grounds, not on analysis of the behavior of graduate students and stenographers, purloined memos, rash public statements, and the like.

The tragedy is that *Science* apparently fails to perceive that public acceptance of the rationality of science is at stake. Condon understands this and, with idealism that overcame the cynical doubts of his colleagues, agreed to deal with a major public preoccupation with a set of events that suggest, to some, that the nation faces a security threat ignored by their government, and to others, that scientists can swindle the government into supporting research in any kind of nonsense, no matter how outrageous.

Vested interests will keep the UFO pot boiling as long as they can. Scientists will sooner or later realize that the credibility of science and its leading practitioners is suffering from the irrationality of the public debate itself. *Science* has an obligation to play a constructive, independent role, either waiting for Condon's report or independently developing the rational evidence needed to settle the basic question of the priority deserved by UFO phenomenology for the scarce scientific resources of the nation.

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It seems that most observations of UFO's are made when little apparatus is available for their study. May I suggest that more data may be obtained if as many people as possible carried with them, wherever they go, two very cheap compact devices: (i) a piece of transparent replica diffraction grating mounted like a 35-mm slide; (ii) a piece of polarized celluloid.

If one can observe or, better still, photograph a luminous object through the grating, it may be possible to obtain some clue as to its temperature and composition. One is unlikely to resolve the Fraunhofer lines of the sun, but many street lights give characteristic spectra.

One may distinguish reflections by making observations through the celluloid when it is rotated. Many UFO reports may be ascribed to reflections of the sun or terrestrial lights by an inversion layer or a cloud of oriented ice crystals in the upper atmosphere.

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Reforms at Brussels

In the wake of recent events in France ("France: After the storm, elite schools face change," 19 July, p. 249), the University of Brussels has also entered a process of restructuring its departments and faculties, a change which was instigated by student revolts. Last spring when the students occupied the main university lobby and threatened to occupy the medical school, joint committees of students and teachers were formed to prepare fundamental changes in the university structure. The Faculty of Medicine has delegated to such a deliberative body (Conseil Facultaire de Réforme) all



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rights to elaborate the new structures, to discuss them with the new board of directors, and to perform transitional duties until the new faculty is instituted in February 1969. Broad participation by the academic community in faculty and university decision-making will be emphasized and representatives from the student body and the entire teaching and nonteaching staff will be elected to the faculty and board of directors. These representatives will have full voting rights.

Efforts are also being made to reduce the omnipotence of the "chairs," a power alluded to by Richelle (Letters, 19 July). The intention is to emphasize collegiate responsibilities and prevent the accumulation of power by any single individual through the acquisition of numerous academic titles or by virtue of sheer seniority (1).

The University of Brussels is the only private nonreligious institution of its kind in Belgium. Although this setting may appear to be progressive, it does not follow that the academic staff is unanimously enthusiastic with the projected reforms since they were begun last May. Those faculty members who do endorse them might look for some more student support during the transitional period in the next few months.

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Reference

1. R. C. Fox, Science 136, 476 (1962).

Falconry

Doolittle's tribute to Frederick II, the eminent and early natural scientist (Letters, 2 Aug.), will be applauded by ornithologists universally. Frederick II was a student of Aristotle and other classical scholars, an excellent observer of nature, and a keen falconer. His life work De arte venandi cum avibus is available in English as The Art of Falconry, translated by C. A. Wood and F. M. Fyfe (Stanford University Press, Stanford, California, 1943). This is an excellent textbook of falconry and a general review of ornithology which covers a wide range of subjects including migration, general ecology, food, anatomy, molt, and flight. Many of these subjects are discussed in a complete

form which was not surpassed until the modern period of ornithology. This work places Frederick II in the honored position as the first great ornithologist in history, according to Stresemann (*Die Entwicklung der Ornithologie*, Verlag Hans Linberg, Aachen, 1951), in addition to his achievement of being the first sovereign known to present a biological work under his name.

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Liberals' Common Sense

Clark's denunciation of liberals for their alleged betrayal of the principle of free speech is uncalled for and misses the point completely (Letters, 5 July). If I may be allowed to paraphrase his example, it might read like this:

"There is a fire burning over there, we have no water, do you suppose we could put it out by dumping that tank car of kerosene on it?"

Shockley: "I dunno—let's find out." Liberals: "Don't try it now; let's wait and try it under safe conditions in the laboratory."

Whether or not there are racial differences in intelligence is a legitimate subject for scientific investigation; no one is disputing that fact. It is the use to which the results of such studies are put that is objectionable. Surely Clark must be aware of the propaganda of racist organizations, hence there is no need to detail it here.

Even if the results of such a study show that the Negro is inferior in intelligence, these results would have no relevance to our present problems. Intelligence has never been a criterion for full, first-class citizenship for whites, and Negroes should not be asked to come with I.Q. cards in hand to apply for those rights. Just because we are liberals, we are under no obligation, moral, or ethical, or in the name of free speech, to furnish a platform for Shockley, or for anyone else. Liberals' responsibility to their community and their country far transcends any fancied responsibility they owe to Shockley. Liberals should have common sense. Common sense and courage were in evidence at the Brooklyn Polytechnic Institute, and I, for one, commend them for it.

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