

A SUGGESTED SCIENTIFIC INVESTIGATION OF THE UFO PHENOMENON

by Olavo T. Fontes, M.D.

THE increasing number of close-range UFO sightings reported in the last two years has produced a big change in the situation of UFO research. Now, with so many UFOs being sighted below tree-top level, the old explanations no longer can be used. Misinterpretations of familiar objects sighted under stressful conditions, atmospherical or meteorological phenomena, and astronomical events obviously do not explain a UFO sighting if the UFO is seen moving below tree-top level or even landing. As things are now, we have only two alternatives: a subjective phenomenon, or a physical, material phenomenon or machine with unfamiliar characteristics. The *reality* of the reports being established beyond any doubt, as it seems to be, we have no other choice.

If the UFO phenomenon is subjective, it could be only an hallucination of a very special type because we know that most observers are not psychotic subjects. In fact, in most cases I have investigated so far there is no evidence of the witnesses' having shown pre-existing personality disturbances. If such is the case, the "UFO hallucination" would have to be a stress and adjustment reaction that might be included in a category of mental disorders entitled, "transient situational personality disorders." In discussing these disorders, the following four characteristics are to be expected:

1. The symptoms occur in the context of a stressful situation independent of the person's personality;
2. These reactions are acute disorders; that is, the symptoms are of short duration and appear with rapid onset;
3. The symptoms and behavioural reactions are transient in character; that is, they subside rapidly and disappear when the stress has diminished and/or the person is removed from the situation; and
4. There is no evidence of the person's having shown pre-existing personality disturbances.

These disorders are interpreted in terms of a theory of stress and adaptation. Symptoms and behavioural reactions are regarded as the individual's adaptive responses to stressful situations which, temporarily at least, are overwhelming. In normal persons, with adequate adaptive capacities, it is to be expected that the symptoms will subside rapidly when the situational stress diminishes. This concept of symptom formation is expressed in the commonly heard statement, "Every man has his breaking point."

As a psychologist, however, I cannot imagine what kind of stressful situation would be present to produce a "UFO hallucination", unless we admit that

the stimulus is represented by the presence of the UFO itself; that is, of a physical object or phenomenon with characteristics strange enough to determine a stressful situation. So we come back to the starting point, having to admit the presence of a physical object starting the situational stress. Besides, these transient personality disorders we are discussing are to be expected *only* in situations of a catastrophic nature—e.g., fire, earthquake, war-time combat, severe illness, grief following death of a loved one—such as would overwhelm the adaptive capacities of almost all individuals.

I do not think the sighting of a UFO in the sky is stressful enough. Of course, if you see a UFO land very close to you and you know (or you think you know) that you are sighting an extraterrestrial machine, or if you see the "occupants" coming out, then you are put into a stressful situation of the kind discussed above. And you can even show the type of reaction we have observed in the so-called "contact-cases", or the neurotic reactions we have seen in other people. But here again we have to admit the presence of an unfamiliar physical phenomenon, object, or machine, starting the situational stress.

On the other side, if we admit we may not be able to identify the stressful situation capable of inducing a "UFO hallucination", but that such a situation exists in every UFO case and *is not* produced by the sighting of an unfamiliar physical object—then we might classify the UFO phenomenon into the category of a subjective phenomenon with the four characteristics listed above. Incidentally, item 4 shows that the characters of the witnesses are not so important because their past stories will show no evidence of pre-existing personality disturbances.

Until now we are discussing the individual case. If we study UFO sightings witnessed by groups of persons, then the problem takes a different aspect. Psychiatrists have proved by observations and experiments that different persons react differently to the same stressful situation. In other words, it is *impossible* to obtain the same hallucination in different persons submitted to the same stressful situation. Their "breaking point" is never the same, and the quality and intensity of their reactions will be completely different from each other. The exception is the particular case of a "mystic experience", where a group of people is already conditioned and prepared beforehand to experience the same kind of reaction—through a mechanism of self-suggestion and self-hypnosis. This is not the case when a group of people unexpectedly witnesses the sighting of a UFO. The conclusion is that the "individual UFO

hallucination" is possible but the possibility of a "collective UFO hallucination" is unscientific and must be discarded as impossible. Besides, if we take into consideration the cases where the same UFO sighting was witnessed by several groups of observers, placed at different locations and with no connection with each other, then the situation is hopeless from the viewpoint of the psychological explanation. Because, in this particular case, we should have to admit not only the reality of the "UFO hallucination", but also the reality of the *telepathic projection or transference* of the "UFO hallucination" from one group of people to another. This would be more fantastic and unscientific than the admission of the UFO's physical reality. In other words, we have to admit the existence of the "UFO phenomenon" as a physical reality, in the light of the considerations listed above which exclude the possibility of a subjective phenomenon. There is no other alternative.

We have not taken into consideration so far the so-called "electromagnetic effects" frequently described in association with the UFO phenomenon, or the cases where physical effects on people or on the ground have been registered, or the radar cases and photographic evidence. These would obviously exclude any possibility of a subjective phenomenon, because hallucinations cannot leave traces on the ground or produce effects on machines and photographic films.

Now, if the UFOs are a physical phenomenon, what must be the position of the scientific community concerning the problem they represent? What do we have to do to make a really scientific investigation of the problem and have it solved in a short time? For two decades we have witnessed the development of the phenomenon, and our puzzlement has received no answer. For twenty years official science has remained silent on the problem. Present methods of investigation are based only on circumstantial evidence, that is, on the reports of witnesses of UFO sightings all-over the world. This is not enough and can only serve to demonstrate that the phenomenon exists. What we need is a scientific investigation into the mystery of the nature and origin of the UFO phenomenon.

I would recommend the following steps to be taken:

1. To cancel unnecessary security restrictions. The idea to avoid too much "attention" to your field work until you come up with authenticated results is good; also the purpose of keeping the matter under study as "personal and confidential" until some definite results are obtained. But we must not forget the fact that scientific research simply does not flourish under such circumstances. Too much secrecy is worse than no secrecy, despite the fact that some secrecy may be necessary in some cases. However, even that must be discarded as soon as possible, to avoid interference with the efficiency of the work of research.

2. To search systematically instead of haphazardly. This may appear obvious, but it is certainly not a

compelling mode of behaviour for human beings. And it is hard in the special case of the UFOs, i.e. when the object of the search appears to be able to undertake evasive action. If we do need a breakthrough here—and a breakthrough would consist of one or more sightings that occurred in front of a group of trained observers and their instruments—the only way is to organise groups of trained observers to be placed at a number of designated spots and start a day-and-night watch, looking for the UFOs. At each point of observation, fixed binoculars, theodolites, or wide-eyed telescopes would be placed as aids to the eyes. Most of the UFOs can be observed with the naked eye, but far more detail becomes accessible when optical instruments can be used. A network of such UFO-watch posts all-over a vast region of a country, or covering several countries, would permit accurate estimations about UFOs' speeds, altitudes and paths.

3. To use the most efficient methods of detection available. It is particularly important to be familiar with the UFOs' characteristics which provide the basis to choose the best methods. Generally speaking, the available evidence indicates that they can emit light, ultrasonics, radiation, microwaves and heat. They also appear to be able to create powerful electromagnetic fields, capable of producing strong disturbances on Earth's magnetic field (at least on the area over which they are flying or hovering). According to these unusual characteristics, the following measurements should be conducted: spectra of emitted light; ultrasonic emissions; radio-frequency emissions; radioactivity; magnetic disturbances, local temperature and pressure; and also infra-red and visible photography. The best instruments for detection would be the following: ultrasonic amplifiers and recorders, scintillometers, microwave detectors, infra-red scanners and electromagnetometers. Evidently most of these instruments are very expensive and difficult to obtain on a scale large enough to give one of each for all of the UFO research stations. We must use our judgment to solve the problem in the best way. On the other hand, radar tracking stations would not be so good for UFO detection despite the fact that they behave like solid objects in most cases. The reason is related with the general hypothesis that UFOs are material objects, not excluding the possibility of their being nonhuman vehicles. In the last case they might work under intelligent control and so be able to neutralise or interfere with radar beams by using electronic counter measures. This particular problem would be solved only with a special kind of radar, built to concentrate all available power in sharp pencil beams of energy flashing on and off in fan-shaped array—by supplying a succession of frequencies to a special antenna. The frequencies changing at electronic speeds, it would be impossible for the target to absorb or neutralise all of them at the same time. Such a radar would pinpoint UFOs (not flying below tree-top level) at great distances with extreme accuracy. I don't know if such a radar is available.

Besides the instruments listed above, special sky-

cameras with lens-mirror systems to photograph large areas of the sky with high speeds also should be available at each UFO research station, ready to be used at any time. Such sky-cameras might be similar in type to the remarkable instrument invented by the French astronomer Roger Rigollet, a specialist in meteor studies for the French National Centre for Scientific Research (C.N.R.S.). This instrument, called "Photographic Analyser of Trajectories", works automatically.

4. To choose the best locations to set up the instruments. Every effort evidently should be made to set up the instruments in spots where UFO sightings are frequent, in order to measure sizes, altitudes and speeds, and to get photos and scientific data of other kinds. This is the main problem, as we can easily deduce. How to determine in advance such locations of increased UFO activity? Let us take for instance the example of North America. I would recommend the following general procedures: *First*, to plot on a large-scale map of North America the whole network of Canadian, American and Mexican military targets, AF bases, missile bases and proving grounds, military plants, atomic research centres, plants and piles, satellite tracking stations, water reservoirs and dams, and cities of heavy industrial concentration. *Second*, to trace straight lines including at least *four* of the plotted points each. The final result will be a geometrical pattern and the intercession points among many alignments shall be almost certainly the locations where frequent UFO sightings will be reported in the next UFO wave.

5. To use a convergent procedure. In general, no indication of the UFO is available until it is actually sighted or detected. If and when possible, by using the data filtered from UFO-watch posts in the area to be searched, the first thing to do is to mark the starting point and record the path actually followed by the "unknown." If the UFO is following a linear trajectory, after two points are plotted on the map and a straight line traced between them, every other point included in the alignment beyond and behind the plotted places shall be alerted *in advance* about the possibility of a UFO-sighting there that same day—at any time. Therefore, the whole region where the "unknown" is going to be sighted is alerted and covered in advance. And all instruments of search available there must be set up to close down on the object, at successive locations along the expected path.

If this cannot be done, the search is very likely to lose any planned characteristic and become more or less random.

6. To distribute the available equipment and trained observers in reasonable proportions in different regions. This is a very important point. However, if the available facilities are so small that they can all be put into one region without producing overlapping—it is best to put all the instruments and operators in the most probable region.

The most probable region where UFOs might

be sighted is very difficult to determine because it is different for each UFO wave for each country involved. In a developed country, an atomic research centre or a missile proving ground could be the best targets for such a purpose, but the best way to be sure is to plot the frequency of sightings all over the country in the past seven years. Then the most probable region (i.e., an area where UFO sightings are frequent) will be predicted with reasonable accuracy. The same procedure can be used for undeveloped countries.

7. To consider any effect the search procedure may have on the searched object. A very important point to remember. If we cannot exclude the possibility that UFOs might be non-human vehicles under intelligent control, we have to take into consideration that the UFO might take evasive action based on its expectation—derived from previous experiences—of the search procedure to be used when it approaches certain areas of the country involved. Regions heavily patrolled by military jet-fighters or guarded by a powerful network of radar posts must be avoided, for the reason listed above. The quiet areas certainly must give a better chance to use the tracking equipment and scanning devices—against a relaxed UFO, hovering calmly in a peaceful sky, from the rough search procedures of the military.

The data reported from all sources would be analysed, classified and correlated by experts in the fields of electronics, physics, astronomy, meteorology, photography, etc., in order to ensure a scientific evaluation of the evidence collected.

A last word of warning. If UFOs are a new kind of physical phenomenon, still unclassified, we have all the time we want to study them. On the other hand, if they are non-human vehicles under intelligent control the situation is completely changed and the time factor becomes very important. In fact, if they are manifestations of an extraterrestrial intelligence, we have reasons to believe that the time we still have is very short—*five years* at most. The next "UFO-wave" might be the last, if the master patterns obtained from the available evidence are correct. In such a case, it is certain that the UFO problem embodies an urgency which defies expression. Anyway, we cannot take the chance. This is not a matter to be dismissed lightly.

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MIDSUMMER SIGHTINGS OVER ANDORRA

by Antonio Ribera

SOME extraordinarily interesting sightings took place near and around Andorra la Vella, capital of the Pyrennean principality of Andorra between France and Spain, during the period June 17-22, 1967.

On June 17, at 8.00 p.m., more than 50 people saw a formation of three globes or balls, stationary above the Pic d'Enclar mountain. The objects were described by the witnesses as red on one side and silvery on the other. The central globe was much larger than the other two, and the estimated size of all three was considerable.

After a quarter of an hour, the two small lateral objects made off at high speed, and the large one followed a few minutes later at a speed described as "terrifying."

I feel that these objects could not possibly have been meteorological balloons. Had the two smaller ones been swept away by an air current, then the same air current would have had to take the larger one too. They were objects endowed with a power of movement of their own.

Strange square object

On June 20, at precisely the same time, 8.00 p.m., more objects were noticed by some people who were passing by a local optician's shop. Alerted, the optician hastened to distribute binoculars and telescopes among the crowd. The principal witness, named Jaume Ros, was using a telescope with magnification of 60, and his description of what he saw is as follows: "A 'something' that looked like a sheet of plastic, supported at its corners by four very luminous balls, thus forming a square, one of the corners pointing upwards and another downwards." The colour of the balls was orange, and their estimated height about 4,500 or 5,000 metres, which is the altitude at which the airliners come over the Pyrenees to Andorra.

The "plastic sheet" seemed to have its own vivid illumination, resembling the incandescent quality of neon lighting, and small black points (figures?) were to be seen moving about on it.

The sighting lasted half an hour, and then the entire "system," the four balls and the "sheet," vanished at staggering speed.

Perhaps this might have been some sort of space-platform.

Flying "wigwam"

On June 21, at 12.15 a.m., in the middle of the night, the Andorran businessman Jaume Bordas and his wife Odile Bordas saw appear, on the horizon to the WNW, a luminous object of the apparent magnitude of Venus when setting. It

crossed the whole sky, much more slowly than a satellite, passing through the zenith. Its manner of movement was in a zigzag, stopping at intervals for three or four seconds, and dimming its light, and then moving forward again, assuming a much greater brilliance as it did so. Its colour was bluish-white.

Observed through 20 x 50 glasses, it was seen to be triangular in shape, with two projecting parts at the front which made it look like an Indian wigwam.

When it reached the mid-heaven, it described a small circle. On reaching the eastern horizon, its light went out briefly, then came on again, far more vivid, and the speed was stepped up to the order of ten times what it had been.

The total time taken to cross the sky was 10 minutes.

At 12.45 a.m., in the early hours of the following day, June 22, Señor Bordas and his wife again saw, from the fourth floor of their house in the centre of Andorra la Vella, the return of the same object or of one similar. It was in the same area of the sky, zig-zagging at the same slow speed. At 1.00 a.m. they saw appear, from the same area of the sky, what might be described as its "retinue." This was a formation of intensely bright points of light arranged in a circle or aureole and followed by a "tail" or trail of similar points of light. These bright points of light were much smaller than the first object which had passed over a quarter of an hour before them, but were moving at the same slow speed as it. They looked, in the words of the witness, "like small stars."

They finally vanished at the same point on the horizon as the first and larger object.

I feel these reports are of particular interest, in view of the British airliner captain's report of a cone-shaped object which flew under his plane near the Pyrenees, as told by S/Ldr. A. Prevost in the September/October issue of the *Review*.

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