

EXAMINING THE IFO CASES : THE HUMAN FACTOR

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ABSTRACT

In past years, all of the well known "ufologists" realized that misperceptions or misinterpretations of aircrafts, weather balloons, meteors, twinkling stars and other man-made or natural events account for many initial UFO reports. Nevertheless, this acceptance of the IFO phenomenon -- viz., the identified cases -- doesn't exceed the simple remark of its existence.

In fact, according to these persons, the reports that remain when these "false sightings" have been eliminated have an altogether different character.

But some recent work has largely pointed out that the IFO and UFO events contain very similar (or the same?) "patterns". The fear and the emotions produced by both IFO and UFO events have tones of the same intensity, without any practical differentiation.

The purpose of this paper is to provide information about the numerous problems associated with the physical, physiological, psychological and social processes involved in most IFO (and UFO) cases, and to suggest a probable interpretation of the conscious and subconscious events that lead the witness to read the same specific "UFO models" into an IFO sighting.

We have, moreover, tried to distinguish various kinds of IFO reports, by proposing three different "transposition levels" that could replace the inadequate, though still used, generalization of "misinterpretation" or "misperception".

Without having to introduce the assumption of an "altered state of consciousness" or other "pathological" processes in the witness, we think that the IFO "experience" is -- even considering its repetitive and collective nature -- a very common, selfdeveloped, human process, principally generated by some basic psychological, psychophysical and social events with the cooperation of the folklore and the myth surrounding the whole UFO subject.

INTRODUCTION

For years IFO cases have been catalogued by ufologists as simple "noise" in the UFO study. The position was to regard it in two diametrically opposed ways: the misinterpretation was due to psychopathological cause or to the normal limitations and fallibility of sensory perception which can be eliminated "very easily"(46).

Right now, I thoroughly disagree with those who hold that it is easy to recognize an IFO account from a "real" UFO report; neither do I consider a psychopathological cause necessary to explain the "mistakes" leading a sane witness to transform a conventional object or event into a more "exotic" UFO.

Undoubtedly, the causes for very few "transpositions" can be also psychopathological in nature, but such discussions would require more space than is available here.

By "IFO case" I mean the perception, memory and recalling of the experience concerning a particular transposition, that is a displacement of the meaning, one in which the witness (acting in all sincerity) transforms a conventional (natural or man-made) event into a more "exotic" UFO experience. This occurs under the influence of folklore and myth surrounding the whole UFO subject.

Till now, all kinds of IFO cases have been labelled under one basic term "misinterpretation", the only exception being MONNERIE's unfortunate "rêve-éveillé" (34). Such a generalization is extremely misleading, and I will examine it later in more detail.

There is no simple division, sic et simpliciter, between explained reports (abusively called "confusion") and unexplained reports (abusively judged authentic). These two groups -- whose ratio of occurrence is about nine to one -- basically contain the same "patterns", as demonstrated in recent works (16) (41).

Obviously, the definition of an IFO case is subordinated to the exact identification of the stimulus due to the analysis led by the persons intervening in the stages following the experience's account (such as the reporter, the field investigator, and the researcher) or, ever if rarely, by the witness himself.

Nevertheless a persistent misuse of language lead us to mistake the UFO case for the UFO experience or to reject the IFO cases as something quite different from the UFO experiences. On the contrary, even considering an IFO case we must always talk of UFO experience and UFO report because the witness doesn't experience and doesn't report, e.g. the Moon, Venus, a balloon, or a meteor, that are the perceptual stimuli, but instead a "UFO" (hence the "UFO experience").

This consideration makes itself necessary for the purpose of clarity and to avoid further confusions or erroneous interpretations when one mentions UFO cases,

IFO cases, UFO experiences and UFO reports.

The real question is: why is it that for over thirty years now, so many thousands of people have "mistaken" -- and are still mistaking -- stars, meteors, planes, balloons, the Moon and so on for a UFO, ascribing to it every "specific" peculiarity of the phenomenon and reporting almost frenetically sightings of IFOs all over the world?

We know that the same "strangeness rating" and the same "emotional response" can be generated by either a "real" UFO experience or a conventional stimulus (e.g. a bright star) which is reported as a UFO by a bona fide witness. Obviously, it is not the stimulus by itself to suggest with its appearance the phantasmagoric and vivid description witnesses are used to sketch out; these are due to something else, perhaps a subconscious sentiment in the percipient's mind that leads him to "lend" to the IFO typical UFO features.

A particular psychological state of the witness will be introduced later to explain, for example, the behaviour of a French man, who, in 1954, shot at his neighbour who was bustling about the motor of his car in front of the head-lights, believing him a "martian" near his flying saucer! (10) But our opinion is that the interpretation of an IFO experience doesn't generally require the assumption of an "altered state of consciousness" of the witness or other "pathological" processes. The people which originate the IFO cases are in every respect the same as those who report the so-called "true" UFO experiences.

TESTIMONIAL PROCESSING

Firstly we shall analyze briefly the physical, physiological, psychological and social processes that can produce an IFO (or "UFO") case. (These processes are diagrammed in Fig. 1).

This sequence of events usually begins with some actual distal physical event (an energy change or source some distance away from the observer). The energy arriving at the observer's sense organs, the proximal stimulus, is encoded into neural events, producing sensations which are combined into percepts and finally into cognition. The percepts generated during the sighting are stored into memory, are retained here and, after a variable lapse of time, are retrieved from it. At this point the witness can report what he experienced. The final step is the report, and it can see the intervention of one or more reporters in the ultimate chain.

At each step, the input information is subtly transformed several times and ways from the numerous external and internal processes, which play an important role in determining the characteristics of the reported experience.

In this context we are principally interested in analyzing the interfering structures inside the witness himself (rather than subsequent reporters), even if,

in some cases one wonders if some strange details -- those allowing us to catalogue a sighting into the UFO category -- have been actually deduced from the witness account by the investigator who has unconsciously adapted the account on his belief. Such a behaviour by an investigator can easily turn a completely ordinary event into the strangest kind of experience within the ufological folklore. One wonders how many such instances of investigational prejudice led to the creation of "classic" cases in the past, making it difficult to separate fact from fiction.

Let's get back to the witness.

When we experience an important event, we do not simply record that event in memory as a videotape recorder would. The situation is much more complex.

The first problem is generated by the fact that the witness, usually, presumes that his "UFO" (viz., a conventional stimulus transformed in "UFO") is not simply a perceptual phenomenon of some sort, but a three-dimensional object presumably originating from outer space. Perception is not just a simple reproduction of what we see. As HAINES has put it, perception is "an extremely complex process in which sensory inputs are integrated with the assistance of memory (viz., prior experience traces), feedback, and cross-referencing to produce a pattern within the nervous system which results in recognition, identification, and an appropriate response, if such is required." (13) People differ from each other in terms of genetic endowment, neurologic integrity and personality characteristics and dynamics -- all of which account for what they see or say they have seen.

It often happens that one's interests, disposition and attitudes directly influence the course of perception and can determine its content, so that a large part of what is perceived is actually deduced. In addition, the observer's state of "alertness" can affect how and whether he will sense a given stimulus. As noted by WERTHEIMER (47), states of extreme tension or anxiety can also produce not only reduced alertness but an enhanced tendency to misinterpret or distort sensations.

Sighting an object that the observer believes to be a UFO does, in many cases, cause the observer to feel stress; when reporting about his studies of human eyewitness testimony, Dr. Robert BUCKHOUT, director of the Center for Responsive Psychology at Brooklyn College of the City University of New York, wrote: "In experimental situations an observer is less capable of remembering details, less accurate in reading dials and less accurate in detecting signals when under stress; he is quite naturally paying more attention to his own well-being and safety than to non-essential elements in the environment. Research I have done with Air Force flight-crew members confirms that even highly-trained people become poorer observers under stress." (6)

To sum up, psychological research has shown that people who are generally anxious, neurotic, or preoccupied tend to make slightly worse eyewitnesses than those who generally are not. High arousal apparently causes the witness to

concentrate on certain details neglecting others.

The human being is not a "sponge" which absorbs stimuli indiscriminately. On the contrary, it's highly selective in its reactions, which, in their turn, are largely due to evaluation and motivation processes. Memory of the percept, like cognition, is subject to the distorting effects of motivation, personality, set, suggestion, etc.

Undoubtedly, numerous aspects of IFO cases have to be included in the more common perceptual "illusions" produced by various psychophysiological processes, such as the autokinetic effect (44), the after-images (5), the phi phenomenon (24), the gamma movement and other illusions of movement, the "moon illusion" (23), the various aspects of dark-adaptation and the other common phenomena causing distortion of what is seen (11).

There are, however, cases in which some perceptive details are really "invented" by the witnesses, even if this process is much more evident in memory and recalling stages.

HAINES (12) correctly points out that the UFO witness may therefore quite literally and honestly "see" things that are not actually present, "Perhaps in an honest attempt to reduce the emotional and intellectual uncertainty which inevitably accompanies a novel experience, -- he writes -- the witness may add certain types of percepts from his memory and/or delete other types; this helps reconcile the often unreal quality of the original percepts with an acceptable reality-based, final perception (see BARTLETT below). For instance, in order to avoid the almost certain ridicule that is expressed by people who have never experienced a UFO and who cannot cope emotionally with such a possibility, a UFO witness may add certain visual details gleaned from his imagination or memory. The addition of these details usually makes the object he describes appear more similar to objects he believes others have reported. Thus, what may originally have been the perception of a vague, greenish haze seen hovering silently above an open field late at night, may be reported as a well-defined, light green object which flew slowly and evenly over the field without making a sound."

During the time between an event and a witness's recollection of that event -- a period often called the retention interval -- the bits and pieces of information that were acquired through perception do not passively reside in memory. External information provided from the outside can intrude into the witness's memory, as can his own thoughts, and both can cause dramatic changes in his recollection. Usually, this happens when witnesses to an event later read or hear something about it and are subsequently asked to recall the event. Postevent information can not only enhance existing memories but also change a witness's memory and even cause nonexistent details to become incorporated into a previously acquired memory (29).

So, how does our everyday memory operate? Usually, we don't retain the pure

experience, but we elaborate before storing it. In fact, we store in memory not the environmental input itself, nor even a copy or a partial copy, but only fragments of the interpretation that we gave to the input when we experienced it. A vivid, detailed photographic resurrection of the past is not the most efficient way to remember. Memories of everyday events are more similar to a syllogism than to a photograph; usually we go gradually towards the past and only seldom do we recall it as a "snapshot". A grown-up person usually uses (verbal) symbols, to organize his memory in such a way as to find what he needs. We constantly translate our experiences by means of intervening symbols, store them in our memory and recover them instead of our original experiences. When we have to remember, we try to reconstruct the experience from the symbols (36).

The psychologist F.C.BARTLETT (2), in his now classic study, shows that memory of an event is often affected by an "effort after meaning".

"Regarding the connection of memories, a very important place is occupied by the rationalisation, that is the reduction of a matter to an easily and "satisfactorily" dealable form. This process is itself often based on an emotional attitude, and is what provides the specific basal structure, without which we couldn't remember anything with persistence." It is also known that transformations caused by one's emotional attitude increase as time goes by.

In the final stage -- retrieval -- memory is searched and pertinent information is retrieved and communicated. The conditions prevailing at the time information is retrieved from memory are critically important in determining the accuracy and completeness of an eyewitness account. Some of the more important factors that operate during this stage are: whether the retrieval environment is changed, what types of questions are used to obtain information, how these questions are worded, and who is asking them (30).

Ron WESTRUM (48) summarized very well the role played by interference structures in the retrieval and recalling stages. "The communication process involved in reporting --he writes -- is likely to introduce further requirements of "making sense" (as defined by BARTLETT); after all, communication is not only the reporting of information, but also the negotiation of our mutual identities! I want you to think I am an intelligent, perceptive person, so what I tell you is going to sound as sensible as can make it (perhaps I have to impress myself, too). The import of all this is that the accounts we get of what people have seen are going to be affected by 1) what people expected to see, 2) what it would be sensible to have seen, 3) what can be expressed to someone else about what one has seen. One almost inevitable problem is that perceptual accounts are likely to change as they are re-told, and seldom does one get to a witness before the story has been told four or five times."

Summing up, as R.V.JONES (19) has pointed out (reviewing his wartime intelligence investigative experience in the context of the UFO problem), "witnesses were generally right when they said that something had happened at a particular place, although they could be wildly wrong about what had happened."

THE IFO CASE AND ITS TRANSPOSITION LEVELS

After having briefly discussed some of the steps in eyewitness testimony and some of those forces likely to produce distortions in it, we can directly deal with the possible causes that can originate an IFO case.

Apart from the eventual "ambiguity" of the real stimulus in itself, identified by the witness as "UFO" (ambiguity which is caused, for example, by the distance and position, or by the distortion produced by the intervening atmosphere), the accounts produced by the observation (a star, Venus, the Moon, a meteor, a plane, etc.) and being so similar to the "patterns" of a bona fide UFO experience that I think we can no longer call it a simple misinterpretation or witness mistake in most cases.

Some examples will better explain the above statement.

December 16, 1978. Viguzzolo (AL) Italy.

"I have seen a very bright light...a height I don't know, about 1000-1500 metres, I can't tell exactly because it was night. It was a large light, somewhat smaller than the Moon, but silvery, with strange beams... And it left me with a certain something...that I cannot describe. It wasn't fear, on the contrary, my thought... I think it was an object... I have seen it for about a quarter of an hour... It was a still light... At a quarter to six I looked up and I saw it. At six (p.m.) it was no longer there. The sky was dark...,it was cloudy."
(Personal investigation)

December 31, 1976. Bignall End (Staffordshire) England.

"...The object had now moved slightly, appearing much larger than the full Moon, and filling one quarter of the window. It now seemed to be moving towards her (the witness) and darkened to an orange colour. She watched the object for well over an hour before it appeared to move away. At this point she says that two shadowy figures appeared to be silhouetted against the side of the object. They were like toy soldiers and were quite definitely moving about in front of it. They disappeared from view and the object continued to move away."
(FSR, Vol.23, no.1, 9; SKYWATCH, no.35, Apr-May '81, 9-11)

October 3, 1954. Hérisson-Amiens (Somme) France.

"...the saucer followed us for ten kms. It was flying near the ground, 150 mt. from us and such was its light reflected in the windows of my car, that Mr. Delarouzée opened the door to realize it better...After Rubempré the scarlet sphere sped towards the village of Septenville...At this moment, we had the impression the "saucer" was heading towards us and I was terribly afraid. I continued to drive in

an indescribable overexcited state... On leaving Pierregot I stepped back... The "saucer" was waiting for us and it departed when I started again. It turned spirally for three or four hundred metres and the "champignon" changed its shape into a upside down half-moon shape, with a red sphere on the upper part. We were pursued as far as Rainneville...In this moment the "saucer" increased its rotation, afterwards it departed at a very high speed to disappear into the infinite, within a few seconds."

(D. Caudron, "Requiem pour un zig-zag", in "Recherches Ufologiques" GNEOVNI, no.7, July-December 1978)

All three of these cases relate an "observation" of the ...Moon, interpreted by the witness as a "UFO". How is one to consider them? Does every report contain the same level of misconception?

My opinion is that we can again apply the definition of "misinterpretation" only with those cases in which the eyewitness describes "objectively" (even if the term is used erroneously here) the stimulus of his observation, even if he doesn't supply it with its own name, and he "labels" it a "UFO". Such is the case of the first report above: although the description is accurate, the interpretation was not.

And what of the other two reports? In addition to the witness having given a wrong "name" for the observed phenomenon, the very characteristics of the stimulus have been altered by the witness perception, remembering and reconstruction of the event.

The various characteristics of the UFO phenomenon as represented in the folklore which surrounds it, such as shape and color changes, are assigned to the object of the observation. Such is the case in the second report. It stands to reason that the differences between the first and the second event are such as to prevent us from relating them to the same definition. Therefore it is necessary to develop a new definition for this kind of IFO experience. We propose the term "projective transformation", in which the witness "projects" his conscious and/or unconscious knowledge of the UFO phenomenon onto the object being observed, "transforming" it into something that leaves more and more of the actual stimulus (in this case the Moon) intact and is much more similar to the "ufological" expectations of the witness.

The last report is even more different from the first and also much more "complex" than the second case, and the identification is not so evident in consequence of the considerable increase of the subjective elements.

The third witness assigns to his "UFO" (again the Moon), in addition to the UFO "patterns", "abilities" of physical interference on the surrounding environment (in this particular case, the pursuit of the witness's car). Cases where the witness, believing the conventional stimulus a "UFO", indicates a setting star as cause for "the boring trouble at the TV image", a satellite-reentry for the agitation of his

dog, or the crescent Moon for his car engine failure, aren't rare at all. When considering such "transpositions" as these, it is no longer possible to call them simply "transformations" as in the previous cases. A new definition has to be introduced: the "projective elaboration".

The happening of one of the above-mentioned responses -- "misinterpretation", "projective transformation" and "projective elaboration" -- is quite independent from the characteristics of the stimulus that is the basis of the experience. In fact, it is not the stimulus itself which produces the phantasmagoric and vivid description that witnesses report.

In case of a simple misinterpretation we could assert with some certainty that the "interpretative mistake" is born mainly in the first step of the experience, that is the perception.

On the contrary, considering the process of "transformation" and "elaboration" it seems that, though the perceptive process always plays an important role, the "transformation" develops itself principally in the processes of remembering and recalling the experience; recalling that can be in mental or verbal form and can occur over and over again.

The line between valid retrieval and unconscious fabrication is easily crossed. Gradual and indiscriminant changes can occur in the actual memory of an event over time, depending upon the label used to describe it (9). From the time the term UFO is paired with the experience, a series of modifications in memory and other behaviours could occur (39). Words paired with heavy emotions can reduce or even distort the memories of an experience.

For instance, the excited observers who thought they had witnessed a very strange phenomenon did produce, indeed, the most detailed, the longest, but also the most misconceived reports. This is the "excitedness effect" mentioned by William HARTMANN (15) during his analyses of the reports generated by the fortuitous re-entry of the Zond IV spacecraft over the United States on March 3, 1968. The two most detailed accounts described the apparition as a cigar-shaped ship with a row of lighted windows, and one witness said it was so close she could have seen people through the windows, if there had been people inside!

Reporting is one of the most crucial factors in the UFO problem. There are numerous ways to influence (and often drastically distort) the recollections of a witness.

The manner in which a question is phrased and the assumptions it makes have profound effects on the accuracy and quantity of eyewitness testimony. The effect of question type is an issue that has been under experimental scrutiny since the turn of the century. By using leading questions, for example, an attorney can "shape" the testimony of an eyewitness. Memory itself undergoes a change as a result of the type of question asked (27). Dr. Elizabeth LOFTUS, an Associate Professor of Psychology at the University of Washington in Seattle, has

demonstrated how altering the semantic value of the words in questions about a filmed auto accident causes the witnesses to distort their reports. When witnesses were asked a question using the word "smashed" as opposed to "bumped" they gave higher estimates of speed and were more likely to report having seen broken glass -- although there was no broken glass (31).

To summarize the issues involved in question type and structure of testimony, the notion of cognitive set, defined in terms of specificity of the questioning situation, is a useful tool and also helps to illustrate the negative correlation between accuracy and quantity of testimony (26). When giving unstructured testimony (i.e., free elaboration without the use of any questioning) the witnesses' cognitive set is under the least restraint, and the witnesses are likely to give only testimony about which they are somewhat certain, causing accuracy to be high and quantity low. As the questioning becomes more and more specific, cognitive set becomes directed and narrow, accuracy decreases, and quantity increases.

At this point, it would also be interesting to verify the transposition levels of the stimulus and of the experience itself which occur when the witness produce his report directly (as in sending a letter) without the interaction of an investigator, or, on the other hand, when one or more investigators interfere in the recalling stage of the experience.

PERCIPIENT'S EXPECTATIONS AND SOCIAL INFLUENCES

The very problems relative to human memory are very complex indeed. People's memories are fragile things. The tendency to invent or to introduce new material taken from a different structure can increase considerably with the passage of time.

A witness' confidence in his memories and the accuracy of his memories often have little correlation. People are often confident and right, but they can also be confident and wrong. To be cautious, one should not take high confidence as any absolute guarantee of anything.

Furthermore, many remembered phenomena undergo the influence of individual reactions that are directly produced by social factors, even if they don't require the presence of other members of the same group; for the most part it is a matter of phenomena relating to the "essence" of the observation and its recollection. (3)

Nevertheless, many psychologists think that the storage of things in memory has to be fairly simple and easy; that the main errors and misunderstandings, rather, depend on the retrieval processes. Memory isn't the only place where the recognition processes can go on the wrong track; we can be misled by our expectations and the unexpected things are always more difficult to perceive distinctly. The subject, in short, may be misled by his own expectations.

That expectations play an important role in eyewitness reliability is nothing new. It has been known for some time. For example, WHIPPLE commented that "observation is peculiarly influenced by expectation, so that errors amounting to distinct illusions or hallucinations may arise from this source... We tend to see and hear what we expect to see and hear". (51)

We can identify four different sorts of expectations that will affect perception: cultural expectations or stereotypes, expectations from past experience, personal prejudices, and momentary or temporary expectations (28). When any of these are present, they can distort perception: the perceptual material that enters stored memory will accordingly be distorted in a manner consistent with the expectation.

WESTRUM, in a paper on UFO witnesses, touches upon this matter. "A considerable folklore has grown up around UFOs, as I discovered to my surprise -- he writes -- in the course of making investigation of UFO sightings. For instances, one rural witness told an investigator matter-of-factly, that 'they say that when you get within a quarter mile of 'one of them' your CB (citizen's band radio) doesn't work'. Now this is a very precise piece of knowledge whatever its reliability, and the wide circulation of such 'facts' throughout society is making 'naive' UFO witnesses more scarce. This folklore -- WESTRUM concludes -- tends to set up an expectation that certain kinds of things will be seen or will happen during a UFO experience and this affects not only what the witness feels he ought to relate to others but also what the witness remembers as happening." (50)

And as Allan HENDRY remarks, "the fear elicited by the UFO and the IFO sightings is not in direct response to what is being experienced, but rather to what is anticipated in advance". (17)

It is frequently noted that in the best UFO sightings witnesses most usually try at first to explain their observation in some very familiar terms (the well-known "escalation of hypotheses" evidenced by HYNEK (18)). This process is still considered one of the best arguments by which to discriminate a "true" UFO report from a misinterpretation of a conventional event where "witnesses see what they wish to see"! (14) (18).

The following remarks come from three witnesses that, in all sincerity, reported their "real" UFO experiences.

a) "For a moment I thought that they were jet fighters, but shortly afterwards I realised that I was wrong. These objects went much higher, between 70,000 and 100,000 feet above the ground, about the same height at which the well-known U2 planes fly. These were not planes -- a plane gives out a contrail... I do not know of any explanation. They can't have been satellites. They must have been very large."

(FSR, vol. 18, no. 1, 31-32)

b) "On the ground of my knowledge due to my degree in engineering, it was neither a conventional plane (lack of trail, hard climbing, cone of light), nor a meteorite (trajectory and duration of observation as well as the color of the object), nor an artificial satellite."

(personal file)

c) "During an aerial mission at high height, I have seen above the patrol a spherical object with a translucid appearance. At first, I assimilated the object to a meteorological balloon. Its trajectory seemed to be parallel to ours, its speed was lightly lower... I have left the chase, concluding that it was impossible to join it."

(R.ROUSSEL, "OVNI, la fin du secret", Belfond, Paris. 1978, 152-153)

Three experiences whose witnesses try their best to describe and explain their experience in conventional terms. It is all perfect, except for the class of objects which these three accounts belong to. It may come as a surprise to some to learn that the first statement is reporting the disintegration of the Soviet rocket Kosmos 453 shell; the second, the passage of a bolide observed by thousands of people; the last, a balloon.

Unfortunately... no UFO. But the "escalation of hypotheses" does remain.

In our opinion, the principal function of the "escalation" is --especially in the memory stage -- to "reinforce" the conclusion of the witness about his personal

"identification" of the percept stimulus, and therefore this doesn't represent a parameter sufficient to discriminate a "true" UFO report from an IFO case.

Often, the importance of a witness's sophistication in meteorology and astronomy or his high level of education tend to be over-estimated by ufologists. The above-mentioned accounts came from a civil aircraft captain, a teacher with a degree in engineering, a jet-fighter squadron leader in the French Air Force.

So the witness's occupation is not necessarily a discriminating parameter as for the validity of the sightings, as pointed out by HENDRY (16) with his concept of "average of failures" and by William POWERS (40).

The main problem arises from the fact that airline and military pilots (persons whose reliability and objectivity is presumably unquestioned) have time and again reported seeing what appeared to be "material objects", frequently described as "metallic". They moved at "fantastic speed". They often appeared to take "evasive action". The difficulty with these reports -- as remarked by MENZEL (33) -- lay in the fact that the investigators failed to distinguish between what the observer really saw and the conclusions that he drew from his sighting. His report that the phenomenon seen visually was an actual material object, that it was metallic, or that it took evasive action represents not facts of observation, but conclusions of the observer. So, usually, he considers mere correlations and accidental coincidences to be evidences of cause and effect. For example, he says the object must have reacted to his thoughts, because when he suddenly had an idea, the light changed or the object accelerated.

Even the most highly trained observers fall prey to quirks of the psychological impulse. There is a famous instance -- cited by RANGLES and WARRINGTON (42) -- of a policeman at Aldridge in Staffordshire, England. In August 1971, he became highly excited after seeing a glowing orange light. While maintaining his rationality he was able to photograph it, fully convinced that he was in fact witness to a UFO event. Sad to say that it was later shown that what he had in fact seen was the planet Mars, which happened to be particularly bright at that time. This does not mean that the policeman concerned was a fool, but rather only a human being. Tricks of the eyesight and basic human psychology -- conclude the two British researchers -- combine to produce "flying saucers" from all manner of normally identifiable sources.

A large fraction of UFO experiences take place while the individual is part of a group. And, even if a multiple-witnesses case can be more reliable than a single witness report, it is also true that often the most remarkable IFO cases are those pointed out by several witnesses. Robert BUCKHOUT's experiments revealed that, when comparing single-witness accounts with those of witnesses in groups, "the group descriptions were more complete than the individual reports but gave rise to significantly more errors of commission; an assortment of incorrect and stereotyped details." (6) So, the fact that most multiple sightings are social situations deserves as much attention as the contents of the report, since social factors can influence those contents. (4)

SHERIF (45) amply demonstrated with various experiments the influence that people can have on each other's perceptions. A stationary light was shown to a group of persons in a darkened room. Though stationary, the light appeared to move, and in a different direction to each observer. This is known as the autokinetic effect. Members of the group were able to reconcile the initially divergent perceptions, and to agree in what direction the light was "moving". Each individual didn't necessarily realize he was being influenced by the group situation or was converging with others toward a common interpretation.

Moreover, it is well known that the general environment, in which a stimulus is noticeable, influences its properties and that, unless assuming a critical and analytical attitude to the situation, one doesn't necessarily realize that the properties of a stimulus are abundantly determined by what surrounds it. It's a general principle that is at the foundation of the psychology of illusion.

The normative trends emerging from the SHERIF's groups show the great rapidity with which "norms" of perception are established.

Within the group, the pressures -- so that all members "conform" to the group norms -- are so strong to affect even the most simple perceptual processes.

Some of ASCH's experiments (1) show that an individual subject will prefer to conform to the opinion of the majority (though evidently incorrect), rather than to appear different or fall into ridicule. These experiments imply that if an individual is sufficiently suggestible, when confronted by a unanimous majority of excited UFO witnesses, he might himself become a convinced witness.

As I personally discovered, there are some cases in which a witness, at first exactly identifying the object of his observation (for example, the Moon), has modified his thought conforming himself to the new group norm when other persons, erroneously interpreting the same stimulus as UFO, joint him.

Thus, good probability of experience's transpositions exists in a situation of susceptibility and suggestionability, especially when a particularly leading person is present.

Always concerning the role of the group in influencing individuals' perceptions and behaviour through suggestion, it's interesting to recall the conclusion of CANTRIL regarding the public's reactions to Orson WELLES' "Invasion from Mars" broadcast of 1938. (8) He found that there are, fundamentally, four psychological conditions that can create the peculiar mood in a person known as suggestibility.

Firstly, individuals can refer a given stimulus to one or several judgement standards considered important for its interpretation. A person with particular judgement standards permitting him to "classify" or to "give a meaning to" a stimulus in a nearly, automatic way, doesn't find anything of incoherent in his acceptance; his standards have induced him to "expect" the possibility of such an

event.

A second condition of suggestibility exists when an individual isn't sure of the interpretation that should give to a certain stimulus and when he lacks judgement standards to carry out a reliable verification of his interpretation.

A third, and maybe more general condition of suggestibility, exists when an individual has been confronted with a stimulus that he must interpret or that he wants to interpret and when none of his judgement standards is suitable to the circumstance. In these situations the individual's mental context isn't structured; the stimulus doesn't find correspondence in any preexisting category and he finds a standard that will satisfy him. And, the more urgent is his need to interpret the stimulus, the more likely he will be to accept the first interpretation that is given to him.

A fourth condition of suggestionability happens when a man not only lacks judgement standards through which he can find his bearing, but doesn't consider possible any interpretations besides the one(s) originally presented. He accepts as true everything he hears or reads, not even without thinking to compare it with another information.

A further observation that emerges from the CANTRIL analyses is that some persons, who in "usual" circumstances would have exhibited a critical judgement ability, were so oppressed by the particular situation of listeners that their usually high judgement was inhibited. This is because their uncertainty and emotional anxiety make them susceptible to suggestions when they are face-to-face with a situation that taxes their own meager self-reliance.

Besides being typical characteristics of the whole UFO scenario, uncertainty and emotional anxiety seem to be widely implicated as essential elements of rumor strength.

Because we are dealing with human witnesses, UFO rumors complicate the problem by interfering with perception and interpretation of events. Yet relatively little consideration of the role of the rumors in influencing the context of a UFO experience has taken place. For the present I can only suggest some propositions about rumor peculiarities and their implications in UFO/IFO cases.

Uncertainty or unpredictability can be generated by a belief or intellectual state that is produced by doubt, as when events are unstable, capricious, or problematical. Similarly, wants, needs or expectations stimulated by events that are anxiety-producing originate the emotional factor. These two conditions when stimulated by ongoing events, seem to be linearly related to rumor strength.

As Ralph ROSNOW has synthesized, "when there is little anxiety or uncertainty elicited by the situation, the low levels of arousal engender no rumors to dissipate the emotional and cognitive (uncertainty) states. At the other extreme, the more stressful and unpredictable a situation is, the greater is the resulting

discomfort and therefore the more urgent is the desire to reduce anxiety or uncertainty. One way to alleviate the acute discomfort is to follow the recommendations of a rumor. Another way involves adaptation, since mere repetition of a rumor can foster belief in it, which would lead to cognitive closure." (43)

The importance of rumor's interactions during the formation of IFO cases is just evidenced by the fact that the perception of a stimulus ambiguous -- or so considered by the observer -- often generate a state of anxiety and uncertainty in the witness. Because of such a situation, many IFO cases can be also caused by an optimum combination of emotional and cognitive factors leading the witness to make use of UFO rumors to alleviate the structural strain.

Thus, the event experienced leaves more and more of the actual stimulus to be much more congruent with the UFO rumors in which our society is plunged. In addition, besides being a reaction to peculiar stimulations, rumor instigates additional rumors to provide relief. That is, a rumor contributes to the situation, and the situation may contribute more rumors as a consequence. Have UFO rumors had the effect of instigating more and more complex IFO cases?

PSYCHOSOCIOLOGY OF EVERYDAY IFO CASES

The system of belief and the emotional climate surrounding the whole UFO subject seem to be the result of a strange disease that is inexorably catching almost the entire world population: namely, the loss of faculties to call things by their own name.

The situation is almost always the same. Everytime a common balloon, a meteor, a satellite re-entry appears in our atmosphere nearly everyone "identifies" it at once as a UFO, and is soon followed by newspapers talking of a "spectacular UFO observation", often without anyone having the smallest doubt about the real nature of the event. Is it possible that everyone has forgotten about the existence of meteors, rockets, satellites, balloons, etc., so that almost everything moving -- or seeming to move -- in the sky is catalogued as a UFO event these days?

Why do errors of interpretation tend to repeat themselves and always to be the same, as following a sort of pattern not only repetitive but also collective?

Often superficially it is declared that the IFO cases are only due to the ignorance of witnesses concerning the appearance of all natural and man-made objects in the skies.

It's undoubtedly true that the greater part of Earth's population know nothing about star positions, plane courses or even the existence of such strange devices as the meteorological balloons.

It's true that the cause of some IFO cases is the popular (yet incorrect) assumption, for example, that all aircraft illumination is red or green and blinking, that meteors cannot fly horizontally, that a star cannot move erratically on the horizon (how many people know the existence of the autokinetic effect?), and so on. But this "folklore" could explain only the first stage of an IFO case: the misinterpretation; what about the other ones?

And, as properly remarked by HENDRY, why have the eternal stars, always in their fixed position, never been previously signaled as UFOs?

Even if each IFO case may involve its own processes of error and transposition, let us take a step backward and analyze the physiological, psychological and social sequence of events that are probably implicated in an IFO case.

Certain neurophysiological and psychophysical studies have suggested that we usually synthesize our perceptions in such a way that we leave the occurrence of the world "outdoors"; we do this by building up our "model" of the external world inside of our nervous system, and verifying the validity of the information on the ground or self-consistency of it. If the information and the model are concordant -- which is usually the case because of the constants of the world -- then the

information remains outside consciousness. If there is any disagreement, i.e. if the new information is evidently different (slower, higher, different in shape and colour) or even absent, then we become conscious again of the information (38).

When you drive along a road for the first time, everything seems to be new and interesting; a red house, a large tree, the same road. But, little by little, driving along the same road many times uninterruptedly, you "accustom" yourself to all that is on the road. You don't "see" any longer the trees, the bridges, the peaceful places, etc. In psychology and physiology this phenomenon is called "habituation".

If we apply "habituation" to ufology, one can point out that when an extraneous "element" enters our pre-established perceptual field (for example a particularly bright star), this can be experienced as something that shouldn't be there and consequently judged strange, unusual. At this point, according to the observer's susceptibility -- referred to this specific situation -- the star may be experienced as what it actually is or, for example, as a UFO.

An event mentioned by Philip MORRISON (35) is significant in this regard. A state policeman reported a UFO by telephone to some Air Force experts, who knew him and understood his reliability and credibility: "I have myself in sight a flying saucer which has just landed. It is a couple of miles off, blinking on the sun-struck horizon, obviously disk-shaped; a metallic material". After a few hours the experts arrived, and they all gingerly approached the site -- to discover an aluminium surplus tank, which was being used to water cattle in the dry range. Everything the policeman had said was right, except for one thing: he had not seen the object land. He was driving on the road for the first time in a couple of weeks, and as he came around a curve he knew very well, he noticed a new strange object in the distance glistening at him. All his other perceptions were correct, but he made the assumption he had seen it land...

Of course, "habituation" in itself isn't sufficient to account for the extraordinary number of UFO cases. Moreover it should be added that the state of relaxation (31) that is caused in the witness as a result of the completion of many common and repetitive actions (during which many UFO and UFO sightings take place) can produce a "distortion" of the perception of a commonplace stimulus.

So, during a state of deconcentration (inattention), viz. a situation of perceptive quiet, a decrease of the physiological and external stimuli may correspond to an increase of the interior stimuli (52). In fact it may well be significant that lonely roads, car driving or near-sleep conditions (all aspects of reduced sensory stimulation) are prevalent factors in close encounter cases.

The various mechanisms for misinterpretation occurring during close encounter reports are also appropriately reviewed by Peter KOR. "A person or group of people who strongly believe or are willing to believe in alien visitors have a latent expectancy about encountering such visitors. When this expectancy is combined with a sudden, ambiguous turn of events, the resulting stress and disorientation provide the sensory leeway necessary to structure the situation in

terms of the expectation. Operating on the subconscious premise that alien forces are or may be at work, disparate sensory clues are integrated to produce mental illusion of an after-the-fact investigation to recreate either the situation or the state of mind of the 'witnesses', attempts to solve such cases usually fail -- giving the impression that what the claimants reported must have actually happened." (25) A consideration that deserves our attention.

Another process influencing the responses that will be made to an ambiguous, novel (unknown) event is the psychological predisposition (also known as "set") of the witness. Many times the concept of "set" is expressed in the psychological literature with the terms of "hypothesis", "expectation", "meaning", "attitude"; they are quite similar terms emphasizing the general concept that a person is prepared or syntonized to receive some kinds of information; so the perception depends on set and stimulus interaction. The question of "mental set" is especially important to consider when dealing with certain UFO/IFO cases. Because so little data exist, the distortion of only one factor can make an identifiable object apparently unidentifiable.

A best example of the "mental set" effect is again supplied us by Philip MORRISON. Is the case of three radio astronomers, one of these a MORRISON's friend, who stood outside Washington, D.C., some years ago watching a large cigar-shaped object in the air, perfectly silent, with visible lighted windows, moving very rapidly past them "Independently, they told each other they had each certainly seen the most remarkable kind of unidentified flying object. Suddenly the wind changed, and aircraft engines were heard; the distance adjusted itself, and they recognized they were seeing an ordinary airliner, much nearer than they had thought but not audible because of some peculiar sonic refraction of the wind, A change of the perceptual set changed their entire view of the phenomenon." (29)

But, why should UFOs be the only products of "erroneous interpretation"?

First of all, the concept "UFO" provides -- as remarked by WESTRUM (49) -- a convenient label for certain bundles of ambiguous stimuli. It must also be recognized that this label is more interesting than some others which might be applied to the same stimuli, such as, say, "airplane". WESTRUM argues that "if the use of the label 'UFO' becomes semi-legitimate, one may see it diffuse through society. Stimuli which previously were interpreted in one way now receive a different interpretation. Thus one person's report of a UFO experience may trigger the experiences of others."

"One example of a similar perceptual contagion -- WESTRUM continues -- was the 'Seattle Windshield Pitting Epidemic', in which the residents of Seattle, Washington suddenly began to see small pits appearing on their windshields. Subsequent research suggested that the pits had always been there, but that people had never paid any attention to them. However, when it was suggested that the pits might be due to atomic radiation, an epidemic of reporting windshield pits began. Thus, stimuli which had always been present suddenly began to be interpreted and reported in a very different way,"

For many individuals the "UFO image" has become part of the mental schemes evoked when certain events (natural or man-made) don't appear instantly recognizable. The mass-media amplification has supplied a considerable publicity to UFOs, making them credible. In consequence of this, the imaginary flow that came to be established in the mass culture -- still without exceeding differentiations -- impairs the local, ethnical, social, national, age, sex education differences taking from folklore and traditions subjects that universalizes. Thus, the UFO becomes a part of a technological mythology adapted to satisfy the cultural, technical, scientific and often religious needs of our society.

In fact, considering the remarkable "popularity" of the UFO subject, each and every one of us has now "ufological knowledge". Almost everyone has read books, magazines, newspaper articles, or other literature about UFOs, or watched TV programs or movies about UFOs and discussed the subject with others or simply "heard" something about it.

On this subject, it is enough to remember the results of the public opinion polls regarding "flying saucers" conducted by the American Institute of Public Opinion, more familiarly known as the GALLUP Poll. The report of the first poll appeared in August of 1947, shortly after Kenneth ARNOLD's widely publicized report of flying saucers. The GALLUP news release indicate that 90% of the American public had heard of flying saucers. About three years later, a second poll was conducted; at that time 94% of those polled had heard or read about flying saucers. Sixteen years had passed when in 1966 the report of the third poll indicated that 96% of the respondents had heard or read about flying saucers.

In Italy, an opinion poll regarding "UFO" has been recently conducted by the DOXA. The results -- appeared in November of 1979 -- indicate that 97% of the Italians aged over 15 "have heard about UFOs or flying saucers". And, if we consider only the Northern Italy, over than 99,5% of those polled have heard about UFOs!

And, even if an honest witness declares exasperatingly that he has never read books or magazine and newspaper's articles on the subject of UFO, the "patterns" of his experience could be the result of a common process known as "criptoamnesia". Our memory records and subconsciously stores many sorts of data from daily experience, including those devoid of immediate importance. Information culled from books, magazines, radio, TV, recordings and conversations all contribute to our subconscious memory bank. This, of course, could include data on other UFO cases. The "subconscious image" can, suddenly, arise again in the conscience, with a great sense of novelty and power, as if it was an original creation, in that it is not possible to recognize the way in which this image entered into the subconscious. (21)

The emergence of unconscious contents in the "transformation" of a conventional stimulus in the UFO is supported by the witnesses' statements themselves. Many times, in fact, the facetious phrase has been repeated: "I didn't believe in UFOs

before, but after what I have seen I had to change my mind", even when later verifications showed that such a drastic change of "opinions" has been produced by the planet Venus twinkling on the horizon. Two examples:

"For years I have been reading of "Flying Saucers" and 'UFOs' with a smile of gentle disbelief. However, I now find myself in an interesting position... What we saw has satisfied us that UFOs exist. What we saw was not of this planet..." (a balloon observed for four hours).

(FSR, vol.13, n.1, 1967, 19; FSR, vol.13, n.6, 28)

"I didn't believe in UFOs before, now I not only believe in them, but I'm extremely convinced of their reality. Now I have seen, and I'm convinced that last night I have been one of the few people to have seen a UFO so closely...It was certainly of extraterrestrial origin." (a street-lamp).
(personal file)

In his book "Flying Saucers: A Modern Myth of Things Seen in the Skies", Carl Gustav JUNG provides an interesting comment about this subject.

"...Consider again the cases in which the same collective cause produces identical, or at least similar, psychical effects, that is to say the same interpretation or visionary images, just in the men less prepared to these apparition or less inclined to believe them. These are just the cases in which the unconscious resorts to drastic measures to make discernable its contents. The stronger way is represented by a 'projection', that is to say by a displacement on the external object of a secret content earlier belonging to the unconscious... Under the present circumstances it would not be strange at all that those parts of the population who don't give themselves questions were visited by 'visions', that is by a myth which is diffused everywhere and which many people believe seriously in while others reject as a ridiculous thing," (20)

In conclusion, there are good reasons to think that some component of what I define as the "latent UFO image" has a considerable symbolic content.

Because a person can read the same specific "UFO models" into an IFO case it's essential that the "UFO image" is already in the mind of the potential witness before a UFO encounter occurs.

In a recent book (32), the French researcher Bertrand MEHEUST has shown that most of the UFO phenomenology had already been described in several science-fiction novels published prior to World War II, and even before the First one. It was not generally a matter of novelists of great talent, but indeed of now forgotten authors writing for popular papers or youth books. If some second-rate writers were able to anticipate the UFOs, it's because -- MEHEUST tells us -- the staging themes correspond to some symbols deeply anchored in the human unconscious.

It's therefore possible that in the careful descriptions witnesses give us of their experiences, a much more large part than ufologists generally think comes from an interpretation of the observed phenomena in relation to the conscious and/or unconscious memories, according to some peculiar mechanism of our brain.

Unfortunately, it seems that ufologists have systematically underestimated the witnesses' capabilities of "invention" and the possibility of unconscious contents projection.

SUMMARY AND CONCLUSIONS

For years we have simply not realized the actual role of the one instrument at our disposal; that is, the human witness.

The reported testimony -- viz., the UFO report -- on which we are bound to work is conditioned by many facts that affect the observation and reporting of an event, whose effect nevertheless we aren't able to quantify and estimate a posteriori. So, the IFOs constitute an excellent "standard sample" on which we may work, since in these cases we have at our disposal not only the final report but, usually, the initial stimulus too. Therefore it's possible to read in IFOs the processes that might influence how well a person perceives, remembers, and reports an event. But it isn't sufficient to remark the only existence of the IFO cases. Why did these happen, and how?

The purpose of this paper is to represent an attempt to understand the problem, not to resolve it.

Some conscious and unconscious events that might lead a person to read the same specific "UFO models" into an IFO case have been presented here.

The psychological and physiological state of the witness, the "habituation", the mental set, the "anticipation" mentioned by various authors, the environmental context in which the events occur, and the other above-mentioned concepts when applied to the UFO experiences can help us to understand how the "latent UFO image" suddenly comes out of the unconscious into the conscious world of the witness.

A peculiar internal and external situation happens leading a person to "live" a UFO experience. Usually it's a matter of people that are already susceptible to this kind of experience. Every single experience results from a significant concomitance of psychophysiological, physical, and sociological events that interacting do generate the transposition level of the IFO cases; namely, a misinterpretation, a projective transformation, or a projective elaboration.

The resulting effect depends mostly on the subject's mode of existence, that is on the language logical condensations and displacements he is submitted to.

So, it would happen a sort of ufological transposition on a usual stimulus differently identified by the witness himself, something like the ink-blots of the well-known RORSCHACH test.

The initial stimulus is only the opportunity because the symptom (the phenomenon) takes place.

Nothing of highly pathological.

On the contrary, if thousands of IFO cases exist, it seems that the process is rather normal, probably too normal, so to suggest that such a process is applicable not only to the IFO phenomenon.

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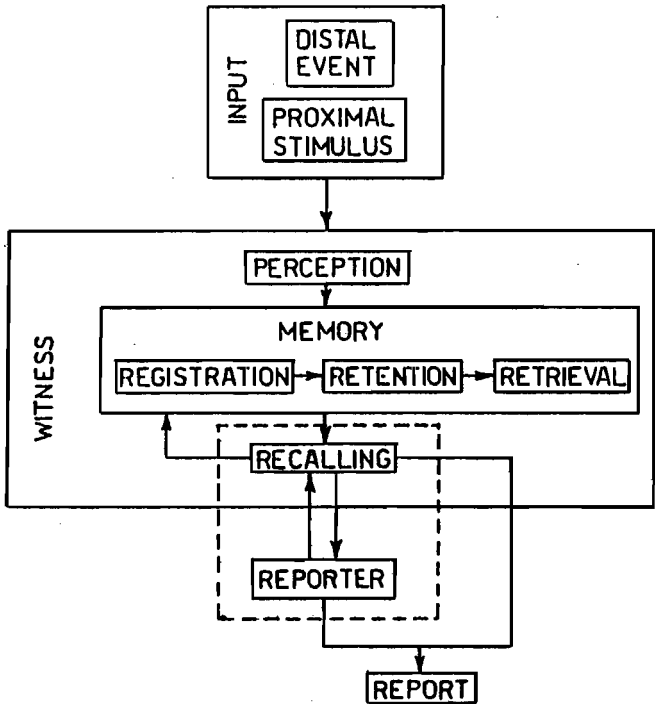


Figure 1 - Diagram of the common testimonial processes occurring during a typical IFO/UFO case.

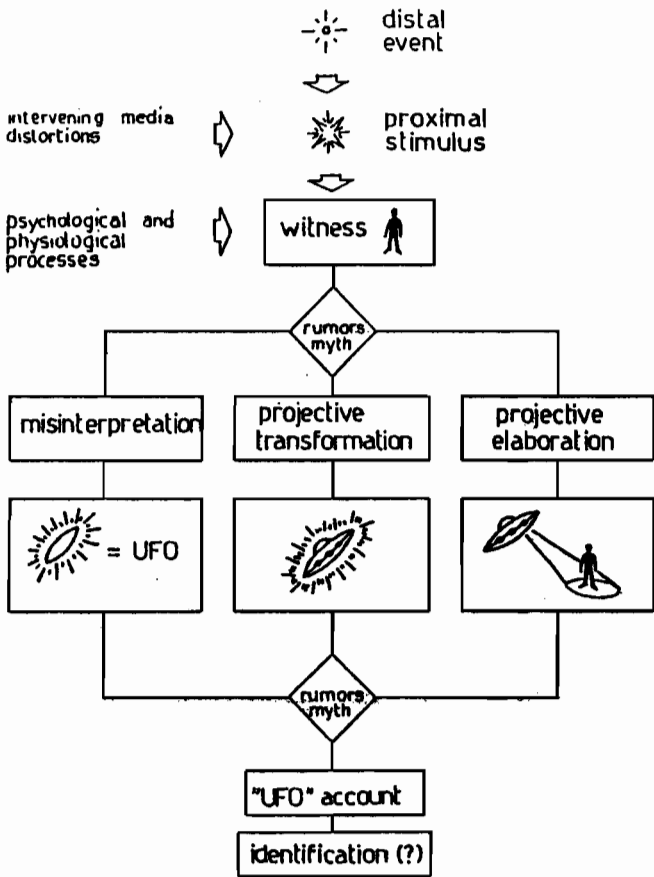


Figure 2 - Stages of an IFO case with the three different transposition levels.