CRYPTO-SENSORY RESPONSE

A new concept in parapsychology and exobiology

C. Maxwell Cade

Mr. Cade, who is scientific consultant to FLYING SAUCER REVIEW, is an acknow-ledged expert in the field of radiation medicine, and is also a specialist in physics, electronics and astronomy. In a note to the Editor about this, his latest essay touching on UFOs and the "contact" problem, he wrote: "I think it contributes one or two new, but scientifically 'respectable' ideas."

THERE are two ways in which parapsychology and exobiology present similar facets. Firstly, there is their potential impact on terrestrial society: one single parapsychological phenomenon—no matter how relatively unimportant nor how small a part of the field of parapsychology—provided only that it could be proved in a rigidly scientific way acceptable to orthodox thinkers, would swiftly modify the whole tenor of civilised life. This is well worth bearing in mind: prove beyond the shadow of a doubt one case of psychokinesis or of clairvoyance and there would be a massive revival of interest in religion, superstition and magic. Similarly with exobiology. Once the existence of intelligent life elsewhere is conclusively proven, politicians throughout the world will unite to see how best they can take advantage of the situation.

Secondly, even if we put both parapsychology and exobiology at their lowest possible terms, and say that they are the groundless beliefs of unorthodox minority groups, there is still the hard fact of the size of these minority groups. Hundreds of thousands, perhaps millions of people, firmly believe that they have seen ("with my own eyes") ghosts, accurate visions of the future, or the saucer-shaped space vehicles of alien races. Like the witchcraft beliefs of the Middle Ages, these are important psycho-sociological problems. Witchcraft, said Sir James George Frazer, was "a pathetic fallacy"—but it was a fallacy that cost the death by incredible torment of millions of human beings.

Crypto-Sensory Response

In Part V of my series A Long Cool Look at Alien Intelligence (FSR, Vol. 14, No. 2, March/April 1968), I discussed some evidence for animals, including man, being able to sense various forms of electromagnetic radiation directly, i.e. without the mediation of the usual sense channels. Since then, I have received more than a hundred letters from all over the world, giving fresh evidence of the many ways in which animals and the radiation environment interact. Also there has been much recent work in the field of bio-meteorology, the study of how the weather affects living organisms. These are only two of many ways in which man's sensitivity to external things has been found to extend far beyond the five conventional senses, and even beyond the twentythree sensory channels which physiologists recognise on the basis of specific neural response.

In order to distinguish these sensitivities from extrasensory perception (with its aura of dubious "occult" phenomena) I use the term crypto-sensory response, meaning actions initiated by external stimuli, but not through any of the familiar channels.

Bio-meteorology

Perhaps the first person seriously to consider that the weather has a real influence on physical health was Hippocrates (c. 460 - c. 375 B.C.). For example, "North wind brings coughs, sore throats, constipation, retention of urine. . . When this wind is prevalent such things will be encountered among the sick." This Hippocratic tradition has always had a certain following, and in 1934-38 a four-volume treatise was published by W. Petersen entitled *The Patient and the Weather*, which was frankly based upon the Hippocratic thesis. Today, many surgeons in Switzerland and southern Germany try to avoid operations during the Föhn wind.

Dr. Reiter, in Munich, reported some seven or eight years ago that accident rates go up during the passage of weather-fronts, and related this to an increase in reaction time (which implies an effect upon the central nervous system). Professor Moos, of the University of Illinois College of Medicine, noted in 1965 that "people become moody, nervous-tension builds up, and accidents occur frequently", as much as four to eight hours before instruments show the weather change. Another group at the same University showed, in 1967, that infrasonic waves (very low frequency sound waves which can be generated by high winds and tornadoes) can be correlated with an increase in the accident rate at places as much as 1,500 miles away from the storm itself.

It has also been found that meteorological stress may raise or lower a patient's sensitivity to drugs by altering membrane permeability or affecting the thermoregulator

In 1964 the World Meteorological Organisation made a special study in conjunction with the international Society of Biometeorology, and reported some strange findings. For example, such hazards as slippery roads, fog and frost, "played an appreciably smaller part in causing accidents than the simultaneous disturbance to the human body caused by the direct onset of the weather stimulus". They reported the odd electrical effect that hamsters will anxiously drag their young away from an alternating electrical field, and they noted that the largest number of legitimate conceptions occurs in June, whereas the largest number of illegitimate conceptions occurs in May.

In addition, weather affects the arterio-venous system

in four distinct ways: by varying the viscosity and clotting rate of the blood; changing capillary fragility; altering blood pressure, due to changes in the elasticity of the blood vessels; and effects transmitted through the

autonomic nervous system.

Infrasonic waves, which I mentioned in connection with road accidents, have only recently received serious study, which arose out of the accidental discovery by Professor Gavreau in Marseilles that these waves were the cause of acute illness amongst his colleagues. This resulted in the construction of the French infrasonic death-ray machine, which reportedly produces very nasty effects.

However, infrasonic sensitivity may also have its useful aspects. About an hour before the first tremors of the 1966 Tashkent earthquake, a school teacher noticed a mass migration of ants, carrying their eggs. For about two months prior to the 1948 Ashkabad earthquake, doctors were inundated with heart complaints for which no medical cause could be found. Much more recently, controlled experiments on pheasants have shown that they respond strongly to an explosion more than nine miles away, and that it is the

infrasonic component which affects them.

Benjamin Franklin, who was enthralled by anything electrical, invented the electric shower-bath towards the end of the 18th century. It is probable that in this he was inspired by the experiments of Dr. Franz Mesmer. Franklin's patients sat in an insulated chair, with a highly electrified disc suspended above their heads, and this electrostatic shower was alleged to produce a profound sense of well-being or euphoria. Since that time, many workers, mainly in America or the Soviet Union, have experimented with electrostatic fields, which can readily be generated by splashing water. In 1892, P. Lenard started a paper with the words, "It has been known for a long time that waterfalls will charge the ambient air with negative electricity."

In 1966, two members of the Stanford Research Institute, Drs. Pierce and Witson, decided to investigate the electrical phenomena associated with everyday "human activities"—a noteworthy and delicate phrase. They found that flushing the water closet with the lid down gave no apparent change in the electric field. With the lid up, a slight negative field was observed. Definite negative fields resulted from running water into the hand

basin, and stronger fields from running the bath taps. But the typical American shower produced a superb negative field of 1,000 volts per metre.

The biological effects of atmospheric negative ions are many and varied. They include increasing the pulse rate and respiration rate, decreasing blood pressure and accelerating wound-healing. Experiments with ions gave contradictory results for a long time, until workers at the Institute of Technical Electronics in Munich found that by using atropine to numb the sympathetic nervous system they got unambiguous results. They decided from this (reasonably enough) that, when the vagus nerve was not anaesthetised, the body automatically compensated for the effects of the ions (homeostasis), so confusing the experimental results.

This is a point which should be borne well in mind by parapsychologists and which may also be of importance in ufology. Today, of course, the whole subject of atmospheric ions is commercialised, and besides being used in space capsules to control the occupants' alertness, ion generators are on sale for use in motorcars, offices, workrooms or anywhere where people need to

stay wide awake.

In addition to these comparatively mundane effects, Dr. Andrea Puharich has claimed that negative ions increase or induce a capacity for ESP.

Crypto-Sensory Response in reverse

Very recently two papers appeared in the American journal, Science, which have far-reaching implications. The first, by Neal Miller, Professor of physiological psychology at Rockefeller University, shows rats can be taught to raise or lower their pulse rate, their blood pressure, their kidney function, and even the amount of blood flowing into their left or right ears. He thus removed the distinction between trial and error learning and classical Pavlovian conditioning.

The second paper, by David Shapiro and his colleagues at Harvard Medical School, showed that human beings are no less clever than rats. Male student volunteers were required to raise or lower their blood pressure, being rewarded when they succeeded. They were not told, however, what bodily function they had to modify, they were only told to get the reward as often as possible. And what a breakthrough in experimental method this turned out to be! The reward was a picture of an

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"BEYOND CONDON . . . " (see p.15)

attractive nude from *Playboy* magazine, projected on to a screen in front of them. Each time a student altered his blood pressure in the required direction by the required amount—up came another nude picture.

These two papers taken together show that the traditional separation between the conscious control of the voluntary muscles and the unconscious control of the glandular and visceral functions is unreal. They also show what a powerful tool for the investigation of human abilities is this method of requiring a problem to be solved unconsciously. Here we have seen the other manifestation of crypto-sensory response—not the reception of information through an unknown channel, but the reception of information through a normal channel followed by response through an unknown channel.

This is highly reminiscent of the physical phenomena experiments with the remarkable Eusapia Palladino. She cheated when she could, and openly blamed the investigators for being slack, but when she could not cheat—she often produced the required results by seemingly paranormal means. Perhaps we all possess many of the remarkable powers attributed to the Yogis, and the only difference is that they have learnt not to inhibit their own capacities.

What Are the Implications?

Important considerations now arise, directly related both to some of the main lines of parapsychological enquiry and to some of the most puzzling alleged phenomena of exobiology (the "contactee" reports).

In relation to alleged paranormal phenomena, it is clear that many reported occurrences which have in the past been taken as examples of extra-sensory perception (and accordingly acclaimed by the believers and reviled by the sceptics) could very well be examples of cryptosensory responses. Many cases of so-called "animal ESP" are simply due to the animal using extremely acute senses—in some cases senses which man does not possess. Some cases of "spontaneous telepathy" are probably in reality due to the simultaneous reception by two people of the same crypto-sensory message—perhaps a physiological warning of an earthquake or

the approach of a still-distant storm.

Not only does the animal world reveal to us a bewildering number of unfamiliar ways of receiving information, but man himself has far more information channels than is commonly known, including some (like sensitivity to electric and to magnetic fields) which have in the past been dismissed by eminent authorities as absent or even as impossible. We all have demonstrable means of acquiring information from our environment, and from each other, of which we are normally unaware. And, in addition to this, the senses interact, in a way which is not fully understood (only very recently, Professor Holt-Hanses of Copenhagen demonstrated that various drinks seemingly change taste when the taster simultaneously hears various musical notes), so that the conscious impression which we receive from a given stimulus applied to any particular sensory channel, varies according to the other stimuli which are present at the same time, as well as according to the stimuli which immediately preceded it.

Again, in relation to the problem of consciousness,

which is one of the most basic problems both of philosophy and of psychology, there is now overwhelming evidence (particularly from sensory-deprivation experiments) that consciousness is indeed an epiphenomenon of the brain, and in particular of the reception and processing of sensory data. Not only our "awareness of being aware", but our efficiency in forming percepts and concepts and in drawing inferences from them, also our orientation, spatial, temporal and even moral, are all related both to the quality and to the quantity of the sensory input—whether this be conscious or unconscious. Even our personalities, which we like to think of as the central, unchanging core of the unique "I", are things of extreme plasticity, moulded by social pressures, or by brain-washing, influenced by changes of diet or by disease, yet largely the result of Pavlovian conditioning during our childhood.

Perhaps the most significant point of all is that our personalities are so closely related to the sum-total of the sensory data processed in our cerebral cortex, including all those crypto-sensory inputs proceeding by unknown channels from other people and (who knows?)

perhaps even from other worlds.

Let us be frankly fantastic. In a leading article in *Medical Research Engineering*, Dr. Carl Berkeley recently pointed out that even the technology of today would suffice to enable us to build a system which, though not a biological system, would possess all the necessary criteria for life: ability to reproduce itself, to adapt itself to changes in the environment, to restore its internal equilibrium when disturbed by external stress. By any definition, such a system would be "alive", and (as I pointed out in OTHER WORLDS THAN OURS) it is probable that first the Cyborg and then mechanical life (robot) is the ultimate form which supercedes all

biological races in any part of the universe.

Consider now the exobiological problem of contact between intelligent races whose homes are vastly separated in space. Supposing that an advanced (mechanical) race endeavours to contact an up-andcoming biological race (ourselves) by a scientific form of telepathy, namely, the use of electromagnetic waves known (to them) to have direct effects upon the nervous systems of biological races. Would it be the least bit surprising if, instead of receiving unambiguous messages in verbalised form, the results were vivid emotional hallucinations, or dreamlike out-of-the-body experiences? One wonders how much of the terrifying, kaleidoscopic experience induced by psychadelic drugs is, contrary to accepted dictum, not the mere heightening of normal sensory experience, but the experiencing of crypto-sensory inputs normally shut off from consciousness by the "protective" homeostatic operation of the autonomic nervous system. Remember the Munich researchers who had to numb the ANS with atropine before their ion experiments worked?

As I discussed in OTHER WORLDS THAN OURS*: "Our present knowledge of astrophysics is too limited for us to be certain whether some phenomena are natural or artificial... in the event of superior communities trying to contact us... we may safely assume that the channel would be one which called for the absolute minimum of technological ability on our part..." What would be

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UFO OCCUPANTS: FACT OR FANTASY?

A psychiatric study of two possible cases Berthold Eric Schwarz, M.D.

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A CROSS the world there have been many reports of possible UFO occupants. With few exceptions, however, little attention has been given to this matter by

physicians.

The eminent psychiatrist, Joost A. M. Meerloo, 3, 4 discussed various medical aspects of UFO reports. In a proposed method of medical investigation of a hypothetical UFO witness, Walker⁵ enumerated various tests and procedures. In a recent report⁶ of actual close UFO encounters, much of the relevant medical literature was mentioned. That study stressed (1) how medicine could be useful in determining the possible human biological effects of exposure to a UFO, and (2) how listing all the data connected with a possible UFO experience might aid in determining if the event was a reality or, in fact, the product of mental illness, a delusion, an illusion, an hallucination, or a fabrication. It was noted that an attitude of a priori condemnation or a posteriori ridicule of possible UFO witnesses was potentially destructive to their health and obstructive to the scientific purpose of obtaining all factual information on UFOs and their purported occupants.

Psychiatric evaluation of persons who have claimed close contacts with UFOs and their occupants might have value. The following accounts are therefore

presented.

I. FARM LADY SEES UFO AND OCCUPANT AT CLOSE RANGE

At approximately 6.00 a.m., just before sunrise, on a clear day in late May, 1957, Miss Frances Stichler, age 62, of Route 6, near Milford, Pennsylvania, saw at close range a UFO and its occupant. A detailed account by J. Edson Myer, of Milford, was published in the *Pike County Dispatch*, Thursday, December 19, 1957. Mr. Myer, together with his wife, are leading citizens of Milford. Mr. Myer has known Miss Stichler from high school days before 1914. The Myers made a careful, onsite investigation. (They had formerly lived and worked in Washington, D.C., for many years. Before retirement they had had responsible and sensitive positions in the Federal Government. They were trained to state facts in careful English and, when possible, use careful measurements.) Their report follows, in part:

"As Miss Stichler was about to enter the barn to feed the chickens, a soft whirring or spinning sound caused her to hesitate and look upward. A rather flat, bowlshaped object with a broad rim soared into view over the barn, only about 15ft. above the roof. About 50ft. away and up about 35ft. from the ground, the saucer came to a stop in a somewhat tilted position and remained poised for nearly a minute. Then, spinning around, it sailed in a large, nearly horizontal arc to the south-east and disappeared over the wooded hill.

"The detailed observations which Miss Stichler made of the object are fascinating. A man in a light gray, tight-fitting helmet and a loose-fitting, shiny suit of the same colour was sitting on the broad rim with his feet and legs in the lower portion of the saucer. The man sat on the rim on the far side of the saucer, facing directly toward Miss Stichler, the saucer being tilted so that his body could be seen down to his knees. No detail, however, could be made out much below his waist because of the lack of good light and the angle of the saucer. The man, of average size, had deep-set eyes and a rather long face with a calm to quizzical expression. His skin was suntanned. Miss Stichler reported that the man may have been wondering what she was thinking about and if she would scream or run.

"At no time did she think of speaking to the occupant of the saucer. The two looked at each other for the entire time. Miss Stichler was at first too surprised to be uneasy. Then as the man continued to gaze at her, she began to feel disturbed and wondered what his next move might be and what she should do. About that time the whirring sound began to increase and the saucer took off.

"Miss Stichler, with a great sense of relief, then went back to the house and wondered for some time to whom she might phone. She thought about phoning the police, since if it were a Russian spy it should be reported. But because there was no material evidence of any kind to exhibit, she felt that she could not present a logical case. Miss Stichler did report this happening to a few friends shortly thereafter; but it was always taken lightly and they never failed to ask what she had been drinking. (Miss Stichler is not a drinking person.) For this reason no attempt was made to report a detailed account. A short previous account of this experience was reported in Mrs. Emilie Case's column in a recent issue of the *Pike County Dispatch*, but it was felt that a more detailed story would be of interest to many readers.

"The rational thoughts about this episode which occupied Miss Stichler's mind during the sighting and afterward are quite convincing evidence that this was

anything but an hallucination.

"The saucer with the flange was estimated to be about 20ft. in total diameter with the flange 3 to 4ft. wide. No bubble cover over the top of the shiny, aluminium-coloured saucer was visible.

"As the saucer disappeared, the bottom came into view and gave the impression of being a shallow hemisphere. The impression also of something spinning was