

PHOSPHENES AND THE UFO PHENOMENON

Bernard E. Finch M.R.C.S., L.R.C.P., D.Ch., F.B.I.S.

UNTIL recently very little was known about the effects of a magnetic field on the human nervous system. For many years, technicians working in the vicinity of large coils carrying strong alternating currents reported visual sensations. In 1910 S. P. Thompson was able to reproduce such an effect by exposing the head of a person to a strongly alternating magnetic field inside a large coil. These so called "visual sensations" were studied by M. Valentinuzzi in 1962 and were called *Phosphenes*, which are defined as visual sensations produced by means other than light.

The application of an electric current on the eyeball or near to it causes phosphenes. W. Rentsch (1965) showed that a rapidly changing magnetic field induces currents in the tissues, that is, currents flowing without the application of contact electrodes to the body. Therefore the application of magnetic fields also cause phosphenes or 'magneto-phosphenes'. Living tissues — due to their electrolytic nature—are therefore stimulated by magnetic fields, by virtue of the electric currents stimulated by these fields.

A considerable amount of work is now being carried out in the Soviet Union on this subject (S. N. Lukyanova 1967, Z. A. Yanson 1962). These researchers exposed the central nervous system to the effects of constant and alternating magnetic fields, and found that the electromagnetic field has a direct action on the brain. W. Rentsch (1965) went further; repeating their work, he tried to influence mental states by exposing the brain to specific magnetic fields, but although he did not 'monitor' his experiments with the electroencephalograph, his results bore a very close relationship to what the Russians had discovered.

Glaser et al (1963) showed that electrical changes in the brain induce biochemical events such as the synthesis of a chemical called serotonin. (Serotonin is an amine and is a remarkably potent biological agent. Synthesised within the brain—in milligram amounts — it is capable of influencing the operation of different physiological, chemical and behavioural systems.) Serotonin is involved as an agent acting on the centres of the brain concerned with wakefulness, temperature regulation, blood pressure regulation, and various other autonomic

functions. It also induces sleep. Akert (1952) found that he could produce serotonin in the brain by electrically stimulating that part called the thalamus, using implanted electrodes.

Thus it now seems obvious that a similar effect could be produced by the action of magnetic fields. In other words, the brain (cerebral tissues) can be stimulated by autogenerated currents induced by a neighbouring magnetic field, thereby altering the neurochemistry and bioelectrical activity of the brain, and effecting the functioning of the whole organism.

Hirsch (1968), with this in mind, and working on rats, was able to slow their psychomotor and "thought processes" by exposing them to magnetic fields while they were running in a maze.

Thus a changing magnetic field in the vicinity of a brain induces currents in the nervous tissues, and these small impulse energies which can be transmitted in this manner may lend themselves to the unexplored possibilities of producing stimulus impulses in the brain, with new and far reaching effects.

Now, experiments with rabbits, using a magnetic field of 460 oersted, have demonstrated bioelectrical activity in the cortex. But, what is very significant is that the effect persisted long after the electromagnetic effect was turned off. The most intensive changes were recorded in the hypothalamus and cortex. These are the areas associated with the production of serotonin, and which control sleep and volition.

It has now been shown that the UFO phenomenon could be associated with intense and fluctuating magnetic fields. We have seen, and learned about, the effects of such fields on physical objects like electrical apparatus, motor cars, compasses, metal and chemicals such as paint. But what about the effects on the human brain?

Many of the "contact" cases can now be examined in the light of the foregoing research. It is at once realised that all the reports, statements and accounts, although conflicting, could still be true. For here we may be dealing with "mental phenomena" which are the result of the presence of the UFO. Take away the mental effect and what have you? If an ordinary petrol engined helicopter had, surrounding it, a strong and fluctuating magnetic field, what

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would we see, hear and feel, and what would we say afterwards? Would it be: "A glowing object was hovering in the sky" (magnetic effect of ionisation in the air)? It descends, your car stops, the lights go out, (possible magnetic effect on the car's electrical systems). It comes close to you and "someone" comes out and waves and talks. You are paralysed, and can't think or move; you fall down, become unconscious, and experience vivid dreams for weeks afterwards. This is the pattern.

Although I have described these effects in some detail, I am aware this may not be the true story, for I have considered that the magnetic effects are incidental to the propulsive mechanism of the craft. But what if a magnetic field could be focussed, so that an intense field could be localised and brought to bear on a specific small area, such as a human? Here we have a weapon of some power, a form of temporary disablement which is vastly superior to the methods employed today by us on each other.

One final point occurs to me: as the intense magnetic field of the UFO can stimulate the nervous system directly, this means that the optic nerves could be stimulated without light falling onto the retina. Therefore an important test for UFO recognition could be: "If a large glowing object is seen in the sky, the observer should **close** the eyes, when, if light or flashes are still "seen", then the object is truly "unconventional"—i.e. a UFO. A negative effect does not however exclude a UFO, as the field could be too weak, perhaps due to distance, to stimulate the optic nerve.

On looking back through the reports over the years I recall several cases when UFOs were sensed ("seen") through walls and ceilings and when the eyes were shut (i.e. asleep). I feel there should now be a re-appraisal of all these cases.

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