

# Free from creeping fears

JOHN MANNING

Virtual reality systems are helping sufferers to overcome their phobias, reports

**Dr Simon Wessely**

A few months ago ITV carried one of those trendy car commercials — all strange images and orange landscapes. This one also included several close-ups of a large snake. The purpose was unclear, although my copy of *Freud for Beginners* says that it is a sexual symbol. This snake figured prominently throughout the commercial. The final result was stylish, opaque and rather irritating, but presumably it sold the car.

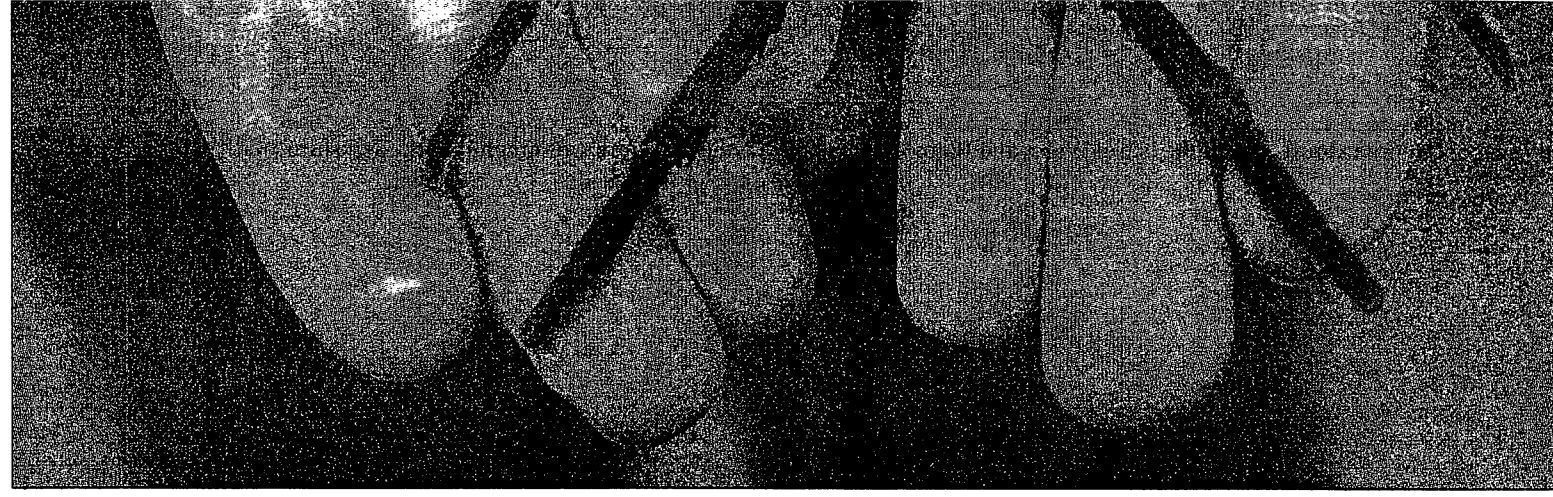
However, some people will have reacted to that particular commercial with something stronger than irritation. The Independent Television Commission received a number of complaints from members of the public who had experienced great distress after viewing the commercial because of the lurid pictures of the snake. These people were sufferers from snake phobias.



A phobia is an intense irrational fear of an object or situation, out of proportion to the stimulus, and accompanied by the desire to avoid that object or situation again. It is perfectly rational for any of us to experience intense feelings of fear when confronted by a live snake. The resulting flow of adrenalin serves a purpose, known as "fight or flight", and allows us a surge of energy either to confront the situation, or, more sensibly, run away. However, it is not rational to experience the same emotions when confronted by a *picture* of a snake, a circumstance in which "fight or flight" is unnecessary.

A typical snake phobia probably causes little distress or inconvenience, except an aversion to trendy car commercials. Other phobias, however, can be accompanied by devastating effects on psychological health and physical functioning. A person with agoraphobia (fear of crowds) may experience feelings of anxiety so overwhelming that they are unable to tolerate such mundane activities as shopping or using public transport. Agoraphobics may be unable even to leave their home in any circumstances, and instead be condemned to a hermit-like existence.

The good news about phobias is that, unlike some psychiatric disorders, they are easily treatable. Provided the patient can be persuaded to cooperate with treatment, success is the rule rather than the exception. The basis of treatment is exposure. Instead of avoiding the feared situation, be it a restaurant or supermarket, the patient is encouraged to return to it in a planned way. Because the fear is irrational (supermarkets may be unpleasant, but they are not dangerous) the patient learns to tolerate the anxiety provoked by the situation for increasing lengths of time. Starting with less frightening situations such as a corner shop on a quiet day, the patient gradually moves on to more



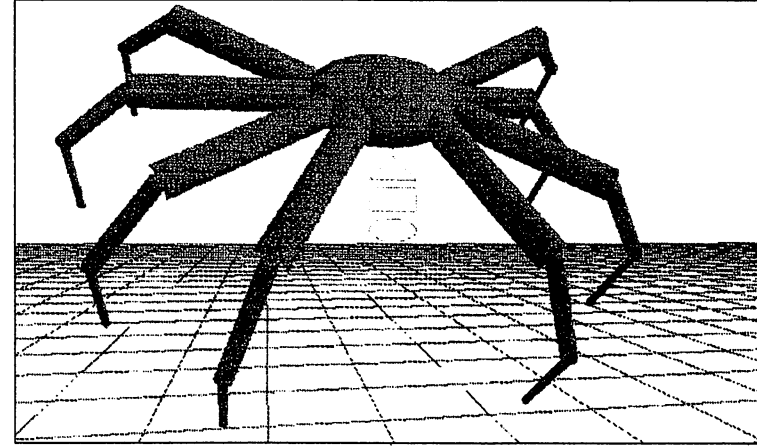
**Spiders can induce a fear in people out of all proportion to their size and potential for danger. Sometimes even a picture will cause unease**

difficult tasks, culminating in Sainsbury's on the Friday before Christmas. Each new task is practised until the anxiety disappears.

There are various ways of carrying out this exposure treatment. An agoraphobic who refused to use the Underground might be encouraged to begin by simply imagining a train journey. Later patient and therapist could embark on short trips together, before the patient finally makes a journey on his or her own. A person with a cat phobia would start by looking at pictures of cats, then spend time in a room with a cat and finally begin to stroke the cat.

The principle of treatment is simple. Designing the treatment programme, however, may take a lot of ingenuity. Researchers at the Communication Research Group at Nottingham University and the Institute of Psychiatry have recently developed a novel way of treating phobias using the latest technology, virtual reality.

VR describes a method by which computers are programmed to generate simulations of reality so real that



**Virtual reality uses computer-generated images to dispel anxiety**

the eye and mind cannot distinguish them from the real thing. The computer-generated image can be projected onto a binocular screen contained within an apparatus that the person carries, like a helmet, on the head.

In recent years VR has started to be

used in several aspects of medicine. It shows great promise for teaching practical procedures such as surgery, allowing the surgeon to practise new techniques without the need for a real warm body. Applications have also been developed in imaging and radiotherapy. However, the Institute

of Psychiatry project is one of the first applications of VR to psychiatric treatment.

VR's advantages are that it is possible to reproduce the feared environment realistically without going to the trouble of finding obliging cats or spiders that will behave on cue. The intensity of the stimulus can be gradually increased according to the needs of individual patients, who can also soon learn to treat themselves without the aid of an expert, thus saving money.

Dr Alex Lewis and Dr Tony David are now carrying out a randomised controlled trial comparing the use of VR with more conventional treatments for phobias. They are starting with patients suffering from a simple spider phobia. Anyone who thinks they have such a phobia, and wants to be rid of it, can write to them at the Department of Psychological Medicine, Institute of Psychiatry, Camberwell, London SE5.

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