

SENSORY DEPRIVATION UNDER HYPNOSIS IN THE TREATMENT OF PERVASIVE ('FREE-FLOATING') ANXIETY: A PRELIMINARY IMPRESSION*

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Modern techniques of psychological treatment which Eysenck¹ has subsumed under the heading of 'behaviour therapy' are impressively effective in eliminating *specific* anxiety reactions. These procedures have already been described in this *Journal*,²⁻⁵ and more recently, Wolpe^{6,7} has presented detailed and elaborate studies examining their intrinsic worth. The application of these techniques to the field of child therapy^{8,9} has also been described, as well as their adaptation to groups.¹⁰ In essence, it may

be stated that where reasonably well-defined stimulus configurations evoke neurotic anxiety reactions in a patient (e.g. when being praised, introduced, contradicted or criticized; when entering a theatre, riding in a lift, or crossing a street; when preparing a meal, watering the garden, or when guests arrive) the evidence already cited shows that at least 90% of the patients so afflicted respond most gratifyingly to desensitization and other de-conditioning techniques.

But what of the patient who suffers from persistent but apparently causeless anxiety? There are many patients who complain of chronic and debilitating anxiety where only

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the most amorphous and nebulous antecedent stimuli can be identified. A logical therapeutic starting point is often completely obscured by the ubiquitous quality of the patient's complaints, regardless of the clinician's theoretical affiliations. Relaxation therapy is rarely effective in these cases. The acquisition of 'insight' is far too tedious a process to relieve the patient's immediate distress, and the use of tranquillizers is at best a palliative stop-gap.

The only specific therapeutic measure for which some enduring results have been claimed is Wolpe's¹¹ adaptation of La Verne's¹² technique of carbon-dioxide inhalation. This procedure, however, has obvious contraindications (especially in patients with cardiac decompensation). In addition, many patients refuse to undergo treatment of this kind — particularly those whose psychopathology involves themes of suffocation or claustrophobia.

The notion that 'sensory deprivation' might be of therapeutic value in these patients was first mooted when general observations suggested that many pervasively anxious patients appear to suffer from excessive sensory stimulation. Although these patients may complain of vague 'feelings of unreality' and 'depersonalization', it is often evident that they are in fact too acutely aware of minute bodily sensations, and tend to over-react to kinesthetic, interoceptive and proprioceptive cues. (Perhaps the first experiments dealing with the therapeutic potentialities of sensory deprivation were the well-known 'prolonged sleep treatments'. It may be added that sleep is an exercise in *partial afferent isolation*.)

Most of the work on sensory deprivation, however, seems to have shown 'a significant and essentially deleterious influence upon the subjects'.¹³ People exposed to isolation usually deteriorate in their ability to think and reason. They experience perceptual distortions, gross disturbances in feeling states and vivid imagery which sometimes takes the form of bizarre hallucinations and delusions. On the other hand, there is evidence that under certain conditions sensory deprivation may have beneficial effects on some individuals.¹⁴

Conventionally, experiments on sensory deprivation are conducted in a soundproof room in which the subjects lie on specially constructed beds or in tank-like respirators. Their arms and legs are usually placed in rigid cotton-wool cylinders to inhibit movement and tactile contact. Auditory stimulation is usually held constant by monotonous masking noises or by means of ear-plugs. Eye and head-coverings are also often applied. Temperature and humidity are kept at a constant level by means of thermostatic air conditioners.

It was felt that most of these elaborate and expensive experimental conditions could be simulated by means of hypnotic suggestion. In fact, after due deliberation it seemed that in suitable subjects 'sensory deprivation' under hypnosis could control a more extensive range of afferent and efferent neural impulses than the conventional experimental methods. In addition to restricting visual, auditory, tactile and kinesthetic stimulation, hypnosis can, for instance, also limit interoceptive stimulation.

The technique of 'sensory deprivation' under hypnosis was first applied to Mrs. P.R., a 31-year-old housewife, who had received psychiatric treatment elsewhere for nearly 2 years without benefit. She had been suffering

from pervasive anxiety and depression since the birth of her third child (3½ years). Apart from sporadic remissions which lasted only a few days, she claimed to have been continuously anxious throughout this period. A course of ECT had brought relief for approximately 3 weeks; tranquillizers produced temporary and variable results. Her feelings of anxiety often reached panic levels for no apparent reason. Ever since the onset of her condition there had been a decline in her social activities and her marriage had also been affected.

When the case history had been completed and the routine psychodiagnostic tests had been interpreted, preliminary testing of the patient's hypnotizability was conducted. She proved to be an excellent hypnotic subject despite her chronic anxiety, and a posthypnotic catalepsy was induced at the first sitting. Arrangements for 5 consecutive daily treatments were then made.

The patient's neck, elbows and knees were comfortably supported by cushions on a couch. Hypnosis was then induced by means of the eye-fixation technique, and suggestions of deep sleep were emphasized. She was told that she could feel no sensations anywhere in her body, that her limbs were numb and anaesthetized, that she would remain perfectly still because all her muscles, tendons and joints were completely immobile and 'switched off'. Next, she was given suggestions of a state of pleasant and constant body temperature, followed by further sleep suggestion. The 'removal' of tactile-kinesthetic sensations were reinforced and, finally, auditory stimuli were dealt with. She was told that she would be deaf to all sounds other than the therapist's voice.

Objective tests were then carried out. The patient made no overt response to sudden loud noises, nor to painful electrical shocks from an induction coil applied to her arms and legs.

She was allowed to remain 'asleep' for 40 minutes. All the suggestions previously made were carefully reversed before waking her. As soon as she opened her eyes, she spontaneously said 'I feel different'. On questioning, it seemed that she had become relatively free from anxiety.

This procedure was repeated at the same time (11 a.m.) during the next 4 days. The patient reported a progressive decline in pervasive anxiety during these sessions. After the third session she declared that she had not 'felt so well for years' and suggested that therapy should be terminated. She was persuaded to undergo two more treatments in order to consolidate her improvement. A follow-up after 4 months revealed that her improvement had been maintained apart from occasional mild bouts of anxiety and depression.

This technique was then applied to Dr. X, a 36-year-old medical practitioner, who had been suffering from pervasive anxiety for over 2 years. He dated the onset of his chronic anxiety to a severe bout of nephritis at a time when his financial position had been precarious. 'Ever since then I have felt apprehensive... my hands shake, my stomach feels tight, my heart races, and I can hardly breathe... I feel that I am sitting on a stack of dynamite with all the fuses lit.' Although he claimed to feel constant anxiety, careful clinical questioning revealed a diurnal variation in intensity (worse in the early mornings). Never-

theless, he was often awakened during the night with his heart racing, feeling subjectively terrified.

A specialist physician had found no organic pathology. A psychiatrist had ventured the opinion that he had a 'masked depression' and advised a course of ECT. Instead, he had taken numerous tranquillizing and antidepressant drugs.

He consulted me some 7 months later when his condition had deteriorated even further. A recently acquired obsession dealing with 'cosmic realities and the concept of infinity' had become superimposed on his feelings of pervasive anxiety.

After routine case data and psychological tests had been completed, preliminary hypnotic trials revealed a fair degree of hypnotizability. This was greatly enhanced by 20 mg. of 'librium' taken about one hour before the sessions. 'Sensory deprivation' under hypnosis was then applied as previously described. Five consecutive sessions affected a marked diminution of his anxious, obsessive and depressive responses. He was advised to undergo additional hypnotic isolation procedures, but did not continue with therapy. On days when he felt unduly anxious or depressed he would take 20 mg. of librium and endeavour to apply auto-hypnosis approximately one hour later. The fact that he found the effects of librium and auto-hypnosis 'of very little help', provides an incidental control and suggests that specific therapeutic factors may have entered into the 'deprivation' or 'isolation' techniques. Eight weeks later he returned for additional treatment. Fifteen hypnotic isolation sessions, spread over a month, finally effected a complete recovery. Six weeks later a follow-up enquiry revealed the recurrence of mild obsessional symptoms with which he could cope. A prolonged follow-up of this case is being undertaken.

Subsequent patients complaining of pervasive anxiety all proved unamenable to hypnotic suggestion with the exception of Mrs. R.C. (a 32-year-old housewife) and Miss D.J. (a 30-year-old librarian).

In the case of Mrs. R.C., ordinary hypnotic relaxation and sleep suggestions (without 'sensory deprivation') were given in order to assess the therapeutic value of hypnosis *per se*. After 5 consecutive sessions, she had made very slight improvement which lasted 8 days. 'Sensory deprivation' under hypnosis was then administered. At the time of writing she has been anxiety-free for almost a fortnight.

Miss D.J., an excellent hypnotic subject, experienced an exacerbation of anxiety the moment tactile sensations were 'removed'. She leaped off the couch with extreme convulsive tremblings, fell to the floor and lay writhing. The therapist immediately re-established her tactile and kinesthetic awareness. 'You can feel the texture of the carpet. You are in good contact with all your sensations. You can feel your limbs and move them perfectly well.' She then began sobbing quietly, and much reassurance was necessary before she regained her composure. Later, she explained that she had suddenly felt 'stark terror' coupled with subjective feelings of 'disintegration'. This unfortunate reaction appears to have had no permanently deleterious effect on Miss D.J. She is still under treatment and the possibility of incipient schizophrenia (in an hysterical personality) has not yet been excluded.

DISCUSSION

These preliminary findings suggest that the technique described as 'sensory deprivation under hypnosis' appears to be effective in the treatment of pervasive anxiety in 'good hypnotic', non-psychotic patients. There is also evidence that the deprivation technique may contain therapeutic qualities over and above the beneficial effects inherent in ordinary hypnotic relaxation and in tranquillizing drugs. It remains to explain the possible reasons for the apparent therapeutic efficacy of 'sensory deprivation' under hypnosis. Does this technique foster the patient's dependency needs? Does the answer lie simply in the patient's temporary freedom from stress? Is the explanation that hypnotic isolation produces a relative change in the balance between the reticular activating system and cortical activity, especially hypothalamic mechanisms? Extensive studies on different types of psychiatric subjects with normal control groups are required before even tentative inferences may be drawn.

It is worth noting that the 4 patients in the present series were divided into 2 fairly distinct personality types according to Eysenck's Maudsley Personality Inventory.¹⁵ (See Table.)

PATIENTS' SCORES ON THE MAUDSLEY PERSONALITY INVENTORY

Name	Neuroticism score	Extraversion score	Result of 'deprivation therapy'
Mrs. P.R.	26	19	Positive
Dr. X	21	24	Positive
Mrs. R.C.	34	17	Positive
Miss D.J.	30	37	Negative

The inference to be drawn from this is that introverts are likely to respond more favourably than extraverts to 'sensory deprivation' under hypnosis. The degree of neuroticism appears to be unrelated to therapeutic outcome. It is worth noting that each patient's introspective report of his or her subjective feelings under hypnotic 'sensory deprivation' differed considerably. Mrs. P.R. spoke of a 'healing warmth'. Dr. X referred to 'feelings of partial deafferentation' and the distortion of body image, 'I felt huge, almost like a mountain'. Mrs. R.C. reported a 'comfortable sensation of floating...and detachment' and spoke of 'suspended animation'. Miss D.J. reported subjective feelings of 'disintegration'. She stated that her limbs felt completely detached from her body and that she had felt that all her 'atoms had been split'. More elaborate investigations of personality variables in relation to hypnotic isolation techniques are required before any significant conclusions may be drawn.

SUMMARY

Whereas specific neurotic anxiety reactions respond gratifyingly to modern methods of psychological treatment, chronic and pervasive ('free-floating') anxiety responses still pose a therapeutic problem. A technique described as 'sensory deprivation under hypnosis' was applied to 4 patients suffering from pervasive anxiety. Three patients recovered from their neurotic disabilities in a mean of

10 sessions. Our preliminary findings suggest that 'good hypnotic', non-psychotic, and relatively introverted subjects are likely to benefit from 'sensory deprivation' under hypnosis.

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