

# Biofeedback-Aided Hypnotherapy for Intractable Phobic Anxiety

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Phobically avoidant people need treatments that enable them to cope effectively with their task threats. Field-mastery techniques that emphasize the importance of cognitively and behaviorally active roles to be taken by both therapist and patient have been shown to be superior to the clinic-based exposure and encouragement approaches. This paper describes a treatment model used with patients who were refractory to any performance-based treatment because of various reasons, primarily intense fear of even the initial guided exposure. Biofeedback-aided hypnotherapy (BAH) was the integrated new treatment employed. It offered the simultaneous safety of the clinic, enhanced vivification of the feared situation, combined with continuous convincing feedback about the growing mastery. BAH may ease the fear associated with the binary leap from in-vitro treatment to actual exposure. This treatment offers an alternative to phobic patients who are too fearful to engage in any other effective treatment modality.

The development of behavior therapies in the treatment of phobias (Wolpe, 1969) was accompanied by a surge of controlled studies that were mostly focused on the efficacy of different therapy approaches. In the treatment of phobias, hypnosis was found to be at least as effective as systematic desensitization when hypnosis employed exposure to the phobic stimulus through visual imagery and when the sample consisted of people who sought treatment for phobia (Glick, 1970; Lazarus, 1976; O'Brien, Cooley, Ciotti, & Henninger, 1981).

An alternative to the reconditioning therapies was offered by the self-efficacy theory (Bandura, 1977). This approach

assumed that phobias could be alleviated by instilling and reinforcing self-perceptions of coping capacities and by providing the patients with convincing evidence about their coping strength. Recent experimental findings have shown that cognitive-behavior treatments effect behavioral change in phobias through their influence on perceived self-efficacy, and that behavior change was better predicted by self-efficacy than by level of anxiety, duration of exposure, or performance level during treatment (Williams, Doseman, & Kleinfeld, 1984; Williams & Zane, 1989).

Guided-mastery treatment is a recently introduced approach (Williams & Zane, 1989) that attempts to overcome common hindrances in the exposure therapies, particularly with regard to difficulties in getting avoidant patients to engage in initial exposures or difficulties in decreasing patients' distress levels despite repetitions of exposures. The

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guided-mastery therapist actively intervenes with various techniques aimed at raising the patient's level of functioning and self-efficacy. This is done through jointly performing the tasks with the person, modeling therapeutic tasks, and later fostering gradual independent performance (Williams, 1990).

While the guided-mastery model of intervention holds considerable promise for the treatment of severely incapacitated phobics, I have encountered several problems in its implementation:

1. Some patients are simply too anxious to engage in even the initial joint performance.
2. Some phobias, such as the fear of driving alone on a freeway, obviously cannot be exercised jointly.
3. Some patients either live far away from the clinic or do not have an adequate support system. For them, any kind of joint performance is difficult to attain.
4. Some patients continue to obsessively doubt their perceived mastery, and focus on the fear of eventual ineffective coping with the phobic anxiety should it reappear. This worrying process probably stems from the patient's inherent self-doubt and insecurity and often results in unremitting anticipatory distress and avoidance.

The predictability and controllability of distressful events can influence the development of anxiety (Mineka & Kihlstrom, 1978). Negative expectancies related to controllability function as self-fulfilling prophecies. A very powerful demonstration of the importance of a sense of control was given in the work of Sanderson, Rapee, and Barlow (1989). They found that 80% of those patients who believed they had no control over the amount of  $\text{CO}_2/\text{O}_2$  inhaled panicked,

whereas only 20% of those who had the illusion of control panicked.

Intractable phobic anxiety may involve not only an undiminished sense of uncontrollability but also a persistent fear of certain bodily sensations, as well as a biased interpretation of them (Clark, 1988). While cognitive behavioral therapies produce less bias on the part of the patient in interpreting ambiguous scenarios (McNally & Foa, 1987) and less patient anxiety sensitivity (McNally & Lorenz, 1987), unremitting cases may require supplemental treatment strategies to help them acquire a sense of mastery. The main challenge for many of these difficult cases is acquiring confidence in one's capability for self-regulation. Biofeedback is a treatment method generally employed to alleviate anxiety-related symptoms by learning to reduce autonomic arousal and to reverse the physiological response typically activated by exposure to stress. In biofeedback, information on a biological system under question is "fed back" to the patient in a manner that enables him or her to control physiological responsiveness and to modify the degree of activation (Olton & Noonberg, 1980). Thus, this method is helpful in developing a credible sense of mastery. A previous attempt to integrate relevant techniques in the treatment of phobia was reported by Wickramasekera (1972) who hypothesized that relaxation increases sensitivity and attention to phobic imagery. He successfully treated an examination phobic woman with systematic desensitization in which the patient relaxed with verbal instructions and EMG biofeedback. The question remains as to how the clinician can integrate beneficial characteristics of available adjunct techniques into one treatment that can be

effective with patients who are refractory to any conventional performance-based therapy.

### Treatment Rationale

Phobia patients unable to benefit from conventional treatments may attribute initial performance successes to their therapist's assistance, rather than to their own restored capacities. Other patients may not improve because of excessive initial fear or other technical reasons that prevent therapist-patient joint exposure. Therefore, treatment in these cases needs to include advantages of a self-efficacy theory-based therapy, yet be initially confined to the therapist's office. Such a treatment should meet the following requirements: (1) vivification of phobic stimuli to promote the credibility of the imagined stimuli; (2) active therapist coaching of patient coping behavior in the imagined feared situation, with emphasis on alteration of anxiety-provoking cognitions and concurrent implementation of autorelaxation; and (3) provision of convincing objective evidence that the employed coping strategies indeed work, and that the patient is becoming self-efficacious in altering his psychophysiological arousal.

These three conditions can be met through the simultaneous integration of (1) hypnosis, (2) cognitive restructuring, and (3) biofeedback.

London, Hart, and Leibovitz (1968) originally found evidence that highly susceptible subjects produced more waking alpha waves in EEG than nonsusceptible subjects. Later studies reported that sustained increase in alpha density can result in increased hypnotic-susceptibility scores (Engstrom, 1976; Wickramasekera, 1977). Absorption, a correlate of hypnotic susceptibility (Tellegen

& Atkinson, 1974), has also been of interest to biofeedback researchers. Qualls and Sheehan (1979, 1981a, 1981b) have reported that low-absorption subjects tend to perform better in biofeedback than high-absorption subjects. Bindler (1992) has suggested that, while the literature indicates that people at the extremes of the hypnotic susceptibility continuum may profit from either hypnosis or biofeedback, there is a large middle range of people who could profit from an integration of the two techniques.

The purpose of this paper is to describe an integrated treatment method that attempts to resolve highly resistant phobic disorders by simultaneously harnessing the unique curative properties of hypnosis, cognitive restructuring, and biofeedback.

### Procedure

Biofeedback-aided hypnotherapy (BAH) components included (1) biofeedback-aided hypnotic induction and deepening, (2) biofeedback-aided in-vitro performance, and (3) cognitive coaching. Level of hypnotic susceptibility of patients in this study was assessed with the Stanford Hypnotic Clinical Scale (SHCS) (Hilgard & Hilgard, 1975). The SHCS is a 20-minute, 5-item scale with scores ranging from 0 to 5. The patients' physicians were informed about their treatment. Changes in benzodiazepine management were made only after completion of the BAH modules. Patients were seen once a week for a regular 50-minute session.

### *Biofeedback-Aided Hypnotic Induction and Deepening*

After providing the patients with in-

formation about the treatment rationale and procedure, biofeedback sensors were connected to the skin. To increase the likelihood of success, the equipment was set to a sensitivity level that easy and noticeable changes of feedback tone were made possible. The equipment's tone was set at a low but perceptible volume. The psychophysiological signal modalities for each patient were matched according to individual differences detected in the patient's somatic response patterns and in accordance with principles previously described by Lacey (1950) and by Wickramasekera (1988). For example, a patient with a pronounced tachycardial anxiety response was given heart-rate biofeedback. The tone change was set so that it would correspond to deepening imagery and suggestions; that is, the deeper the relaxation, the deeper the pitch, or the softer the tone. Prior to onset of BAH, three sessions of biofeedback-aided relaxation training were given, lasting 25 minutes each. From the fourth session on, the patients were given the following instructions:

Make yourself as comfortable as you can in your chair. Let your body be supported . . . allow it to lie loosely and effortlessly . . . as you allow yourself to rest and relax you may want to look up and concentrate on any object or spot you have chosen to stare at. As you do that, you may notice in the background the sound of the biofeedback monitor. Pretty soon, you will notice that the sound you are listening to is changing a bit . . . perhaps it will be going up and then down . . . or maybe it will just be going down . . . relax, enjoy that, and keep listening to the sound. You will find out that the biofeedback sound is going to send wave after wave of relaxation into your ears and then rolling into your head, making the muscles of

your face and forehead relax . . . They will roll into your brain, making your thoughts and your feelings calm, so calm and tranquil, so peaceful and serene that the tone that you hear may seem to become even more distant and quiet . . . So as your body becomes more and more quiet, so does the sound that you hear . . . Soon you will enter a pleasant state of hypnosis and as you do, you may notice that your eyelids feel very heavy and relaxed and that they will want to close.

With this technique the generated relaxation response was harnessed as deepening auditory imagery to enhance the positive feedback loop. After trance had been achieved and the biofeedback tone was indicating stable physiological relaxation, the following was added:

Now that you are so deeply relaxed you may want to listen to how quiet your body is . . . That's very good . . . It is nice to realize that it takes so little effort to help your body into this enjoyable state . . . It is such a relief to realize that your body responds so well to your will. If you really want to further quiet the relaxation tone, and go even more deeply into your trance, you could concentrate on it and allow both your relaxation and the corresponding tone to go deeper and deeper . . . The soft tone is making you drowsy and sleepy, and the deeper you get into your trance the softer the tone is becoming.

This last part was designed to minimize negative feedback loops and to encourage active internal mastery behavior during the next phase of treatment.

#### *Biofeedback-Aided In-Vitro Performance*

The purpose of this phase was to increase the avoidant patient's sense of self-efficacy by providing an opportu-

nity to experience biofeedback-validated self-control during vivified visualization of exposure to the feared stimuli. The procedure can be used in a variety of ways. Specific examples related to clinical cases are provided in the following section of this paper.

The patients were told that they would be able to lucidly visualize the situations described to them. They were then asked to imagine themselves in initially neutral situations and then in increasingly more demanding circumstances, following usual desensitization procedures. The patients were given instructions to raise their index finger when they were imagining the scene clearly. If the biofeedback signal showed no deviation from a preset level throughout a fixed exposure duration of 10 seconds (beginning with the time the scene was presented), the next hierarchy scene was presented. The biofeedback equipment was programmed at this phase to give the auditory feedback signal only when the physiological arousal exceeded 10% of the preestablished resting baseline. The patients were told that the auditory signal would provide them with an opportunity to practice a mastery behavior, as learned in phase one of BAH.

### *Cognitive Coaching*

Cognitive coaching is not a distinct phase of BAH but rather an ingredient of the treatment. As the patients attempted to decrease and eventually silence their biofeedback signal while visualizing themselves in the feared situations, small desirable alterations in the biofeedback signal were praised and interpreted as objective evidence that they were indeed gaining self-mastery and that they were acquiring a valuable skill that could later be implemented outside the therapy session.

Sudden elevations of biofeedback signal were regarded as markers of anxiety-provoking cognitions in operation. Although initial cognitive restructuring needs to take place in a nonhypnosis state, the therapist can serve as alter ego to the patients when the biofeedback signal indicates distress and can remind them about alternative self-statements to be employed. The therapist can also remind the anxious patients to implement their newly acquired mastery of relaxation. For example:

. . . And now you can think to yourself: My body may react with some arousal now, but I know that this is evidence that I am daring to expose myself to a new situation and that I am making progress . . . You can also remind yourself: The more chances I get to overcome anxiety the more experienced and skilled I am going to become in handling those situations . . . You may also tell yourself: The worst that can happen to me is anxiety, and I already know better than to fear anxiety. I have proven to myself time and again that I am the master of my body and that I can weaken anxiety and not let it bother me if I so desire.

Through cognitive coaching the therapist can focus not only on the fear of fear but also on the irrational assumptions with regard to the specific phobia (e.g., "normal people do not perspire," "everyone is observing everyone all the time for signs of perspiration," "any sign of perspiration is an indication of psychological abnormality," etc.) and can suggest alternative rational self-statements.

Almost immediate changes in the biofeedback signal could be expected following such interventions. These should be reinforced with encouraging statements about the growing mastery. BAH is regarded as successful following several in-vitro exposures to the phobic

situation with biofeedback evidence that the patient is capable of restoring and maintaining mastery. Successful BAH should be exploited immediately by having the patient move on to a solitary in-vivo exposure or, if necessary, a guided-mastery treatment involving initial joint performance with the therapist.

### Clinical Examples

#### Case One

Avraham was a single, 28-year-old, professional diver and a reservist of an elite commando diving unit of the Israeli Navy. He sought treatment for an intractable fear of the sea after having experienced an underwater panic attack 3 years earlier. The attack was phenomenologically characterized by severe tachycardiac distress. Avraham was previously treated by several cognitive-behavioral therapies in combination with benzodiazepines, due to intense anticipatory apprehension, but he never managed to go any deeper into the water than his waistline. The patient was consequently assigned to a noncombat job in his military unit and had to give up his occupation. At the beginning of treatment he was discouraged, and he expressed feelings of helplessness and hopelessness with regard to his condition that seemed to constitute a painful narcissistic injury. Avraham had not experienced another spontaneous panic attack, except when exposed to the feared situation. A DSM-III-R diagnosis of Panic Disorder was therefore ruled out. He did meet the diagnostic criteria for Simple Phobia and Adjustment Disorder with Depressed Mood. No Axis II diagnosis was given. The patient was referred for hypnotherapy by a military psychiatrist. His score was only one on the SHCS. Despite the disappointing previous treatment

results, Avraham was still eager to try out different therapeutic modalities with a great sense of motivation and determination. Because the patient's most labile physiological response system had been his cardiac pulse rate, heart-rate biofeedback was chosen as the psychophysiological signal to be used in the BAH. *Procedure.* An Autogenics/Cyborg BL-907 Pulse Wave Velocity and Heart Rate instrument was used. The hands were extended with the palms up; the sensors were then placed on the radial artery and secured with velcro band. After biofeedback-aided hypnotic relaxation was accomplished, the following was said:

... You now proved to yourself again that it is not your heart that is in control over you . . . but that you are the boss of your heart. Now that you have learned how to reduce your own heart rate, and, thus, to eliminate any unnecessary arousal, you are also ready to recall how enjoyable it was to calmly swim in the peaceful waters of the Mediterranean.

Avraham achieved a resting heart rate of 65; however, for in-vitro training purposes the biofeedback tone was set to be audible only when it exceeded 72. If the patient's heart rate exceeded 72 following exposure visualization, a reminder was offered such as:

... If you wish to further decrease your heart rate now, take a moment to concentrate on the biofeedback signal and on how it can change as it responds to your self-relaxation . . . Try to do it while you continue to hold in your mind the last image you pictured to yourself.

Cognitive coaching focused on labile heart-rate signals monitored during diving imagery.

Following is an example to the cognitive sound tracking that was used:

... Your heart is now beating at a

rate of 90 beats per minute. This means that you are doing a very good visualization job and that, indeed, you are now experiencing yourself in a situation that you have completely avoided thus far. That's very good. Remind yourself that you now have accumulated proven evidence that you are able to decrease your own heart rate. Imagine yourself floating effortlessly in the water. The water is supporting your body weight and that feels very nice. With every breath that you take, you can notice how much lighter you become, how effortless and easy it all becomes, and how, indeed, your heart rate is beginning to respond accordingly.

**Results.** In-vivo exposure started after four office visits. Avraham achieved almost complete in-vitro desensitization to all the phobic hierarchy scenes with an average heart rate of 75 for diving scenes and no signaling of subjective distress after 4 months of BAH. However, he continued to avoid diving behavior at the end of BAH therapy. The patient simply refused to put on his SCUBA gear.

Avraham was able to resume recreational swimming and snorkeling for up to an hour by the fifth session of BAH, but he resumed neither his military nor his civilian diving activities. Though he continued to improve, Avraham decided to terminate therapy after 5 months (20 sessions) because he felt he was no longer phobic with regard to swimming and snorkeling, and because he was reluctant to engage in any in-vivo diving exposures. His gains were almost fully maintained at a 7-month posttherapy follow-up (swimming or snorkeling about 50 minutes) in which he reported feeling emotionally well and confident.

## Case Two

Ophra was a 32-year-old mother of two children, aged 8 and 6. She was referred by her psychiatrist for consultation regarding her severe solo-driving phobia. Although anti-anxiety medication alleviated some of her anticipatory arousal, and despite the progress achieved in the clinic-based in-vitro systematic desensitization, her driving phobia was completely unyielding. One of her previous therapists had tried to induce exposure by riding in the car she was driving. She refused to take even the shortest solo car ride, despite the assistance of audiotaped encouraging suggestions that she found helpful in the clinic. Her 7-year-old driving phobia resulted in a dependent, strained marital relationship pattern that at the time of referral was at high risk for divorce.

Ophra received a DSM-III-R Axis I diagnosis of Agoraphobia without Panic Disorder (moderate), and a V-code diagnosis of Marital Problem. She scored 4 on the SHCS indicating a moderately high level of hypnotizability. The patient's typical anxiety reaction was a white-knuckled grab of the steering wheel with a corresponding sense of coldness in the hands. Based on the patient's somatic response pattern, thermal feedback was incorporated into her BAH treatment.

**Procedure.** An Autogenics/Cyborg J-42 Feedback Thermometer was chosen for Ophra's therapy procedure. The thermal probe was attached to her dominant right-hand index finger with a velcro band. Her average baseline skin temperature was 84°F, decreasing to 79°F with driving imagery. Ophra responded well to the biofeedback-aided hypnotic relaxation and was able to raise skin temperature to 92.6°F at the end of the initial

relaxation-training phase. BAH was started after two sessions over a period of 2 weeks. Ophra was put in a biofeedback-aided hypnotic trance and was told the following:

... In the past you have learned that when your hands were getting colder while you were driving, you were becoming unnecessarily tense. To minimize tensions you have now learned to monitor your finger temperature. You can now start recombining the images of peaceful driving with the continuing evidence of your warming skin temperature.

**Results.** Ophra responded excellently to BAH and felt encouraged enough after only four clinic-based treatments to attempt her first solo drive. By the fifth visit she was able to drive up to 5 kilometers by herself.

After eight additional sessions over 10 weeks the patient informed me that she was pleased with the results and that she wished to discontinue her therapy. Three final sessions were scheduled over a period of 6 weeks. At the end of treatment she continued to avoid intercity highways and busy traffic hours, but she could comfortably drive within a 5-kilometer radius of her home, enabling her to independently take care of most of the household errands. At a follow-up telephone interview she indicated no relapse in her altered phobic behavior and informed me that she and her husband were seeing a marital therapist.

### *Case Three*

David was a 46-year-old married father of three grown-up children living independently. He was a social phobic patient who was employed as a team manager in an engineering firm. He was unable to talk to his team of ten professionals as a group but had no problem

talking to two people at a time. His main fear was that he would embarrass himself by breaking out with profuse perspiration. Despite extensive use of hypnotically induced desensitization and cognitive therapy, the patient was unable to generalize in-session gain to real-world exposure. He was convinced that, even during treatment, sweat droplets were embarrassingly noticeable, and he was absolutely refractory to repetitive reassurances that he looked fine.

A DSM-III-R diagnosis of Social Phobia was given. David received no diagnosis on Axis II. He had a relatively low level of hypnotic susceptibility, reflected in a score of two on the Stanford Hypnotic Clinical Scale.

David's specific windows of psychophysiological reactivity and source of distress were related to his exaggerated galvanic skin response. Feedback dermatography was, therefore, chosen to be the biofeedback modality of choice.

**Procedure.** An Autogen 3400 GSR/SPR instrument was used. To obtain skin conductance measurements, silver/silver chloride electrodes were placed on David's dominant left palm. His average resting baseline skin conductance was 0.3 micro ohms. His electrodermal response when imagining his phobic situation was 0.8 microohms at the beginning of therapy, indicating a marked increase in skin moisture.

After two successful biofeedback-assisted relaxation-training sessions over 2 weeks, the patient managed to achieve a reading of 0.1 micro ohms. He was then told:

Now that you realize that you really can make your skin dry and that you can allow it to stay as dry as a bone, you may be ready to apply this helpful ability to an imagined situation in which you were not so sure how

dry your skin could actually be.

During the in-vitro performance when his skin conductance indicated autonomic arousal, the patient was coached in cognitive restructuring relevant to his irrational self-statements. For example:

... You can now think to yourself:

It is normal to be alert and aroused when one is formally addressing other people ... The biofeedback monitor is indicating that I am indeed working in therapy and that means I am not avoiding and that I am making progress ...

If you wish to decrease your skin's moisture now, take a moment or two to concentrate on the biofeedback signal and on how it can change as it responds to your self-relaxation.

**Results.** On the third BAH treatment session after 3 weeks, David was able to imagine himself talking to his staff of 10 people with the biofeedback signal indicating a convincingly nonperspiring skin (0.3 micro ohms). After he was able to replicate this achievement on the fourth BAH session, David was ready to call for a staff meeting.

Though he had fully achieved his therapeutic goal after four weekly BAH treatment sessions, follow-up appointments on a twice-a-month rate were scheduled for 3 more months, after which psychotherapy was terminated. David reported at the 12-month follow-up that he continued to maintain his success.

### Discussion

Therapists who treat phobias primarily with exposure encouragement have shown good outcomes when mild cases were involved and when outcomes were measured with fear inventories of some doubtful validity (Kinney & Williams, 1988). The recently suggested guided-mastery treatment (Williams & Zane, 1989) goes beyond the exposure view

that operates within the simplistic framework of classical conditioning. Guided mastery abandoned exposure concepts and introduced a perception of phobic people as cognitively and behaviorally active persons who need to enhance their sense of self-efficacy.

The relative advantage of guided mastery over exposure treatments has been reviewed elsewhere (Williams, 1990). This paper identified a subgroup of seriously incapacitated phobics who either could not avail themselves for regular joint treatment with the therapist or were simply so skeptical about their abilities that they would avoid any initial joint exposure, thus preventing proper application of a therapist-aided, self-efficacy-oriented therapy. BAH may offer a chance for effective treatment with this type of phobic. Although the suggested treatment operates from the same theoretical model as guided-mastery treatment, it offers practical elaborations to help the severely avoidant patients gain trust in the coping skills that they learn and that they must rely upon once the binary leap from avoidance to performance is made. Some of these patients need to have extremely reliable assurance that, indeed, they are able to squelch anxiety. To assist with this challenge, BAH has been developed to combine the safety of an in-vitro clinic-based treatment, the enhanced reality of the hypnotically imagined exposure, and, finally, irrefutable objective evidence about their gained mastery.

BAH has been shown to be associated with a change in my patients' phobic avoidance where behavior therapy, cognitive-behavior therapy, hypnosis, and pharmacotherapy were previously ineffective when applied separately. Avraham was the only patient who was un-

able to expose himself to the therapeutic criterion behavior (diving) at the end of treatment. It is also of interest to note that he received the lowest score on the hypnotic susceptibility scale. This finding seems intuitively plausible because fighters in an elite diving commando unit would perform best if they were attentive, goal directed, and responsive to changing contingencies in their environment—in other words, low absorbers. On the other hand, David also scored relatively low on hypnotizability (2 on the SHCS), and his treatment was completely successful in achieving his therapeutic goal after four weekly sessions. Ophra, who could be characterized as moderately high on the hypnotizability scale (score 4), benefited from BAH enough to be able to overcome the fear associated with the leap she made from in-vitro treatment to actual exposure but continued to refuse to drive beyond a self-imposed distance limit.

Wickramasekera (1988) has found that high hypnotically susceptible individuals develop psychophysiological disorders when their capacity for a deeply absorbed imaginal experience is turned toward maladaptive thoughts. On the other hand, low susceptible individuals somaticize their stress because of their difficulties in expressing their distress. Phobics who are unresponsive to regular therapeutic procedures may require complex interventions that access their unique psychophysiological vulnerabilities via specific biofeedback equipment and that use an integrated approach to potentiate and to enhance aspects of each treatment component. Low absorbers, for example, may be taught through BAH to enter hypnosis and to benefit from it. This idea is supported by evidence shown in previous studies in which EMG and EEG biofeedback temporarily enhanced

suggestibility (Engstrom, 1976; Wickramasekera, 1973, 1977). High absorbers may be taught to monitor and alter their automatic responsibility through biofeedback, rather than to potentiate their maladaptive vicious cycles that perpetuate their phobic avoidance.

Future research should determine if the pattern of BAH outcome achieved in our clinic is maintained in larger-scale, controlled studies. Further research is necessary to determine the relative effects of different biofeedback modalities and their interaction with the specific nature of the patients' avoidance, their hypnotic susceptibility, and their particular window to somatic vulnerability. BAH should also be regarded as a potentially helpful technique in overcoming anxious resistance to hypnosis.

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