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THE RELATIONSHIP BETWEEN INTERROGATIVE SUGGESTIBILITY AND SUSCEPTIBILITY TO HYPNOSIS

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Using the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1984) and Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A, Shor & Orne, 1962) as measures of interrogative suggestibility and hypnotic susceptibility, 117 subjects were tested to examine the hypothesis that a relationship exists between these two measures of suggestibility. Subjects were assigned randomly to conditions within a 2 (susceptibility: high, low) × 2 (state instruction: hypnosis, waking) × 2 (feedback on the GSS: neutral, negative) design.

The data suggest that the two types of suggestibility are, in fact, associated. Analyses indicated that suggestibility scores on the GSS differed appreciably for high versus low susceptible subjects, and the HGSHS:A was significantly correlated with yield scores on the interrogative suggestibility scale. Results challenge previous claims that the two types of suggestibility are independent of one another and have forensic implications that may be usefully explored.

Researchers in the area of human suggestibility have speculated on the relationship between interrogative suggestibility and hypnotic susceptibility, with some arguing they are independent constructs. Interrogative suggestibility has been formally defined by Gudjonsson and Clark (1986) as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as the result of which their subsequent behavioural response is affected" (p. 84).

There are, according to Gudjonsson (1987), five key components to this definition: the nature of the social interaction, a questioning procedure, a suggestive stimulus question, acceptance of the stimulus message, and a behavioural response.

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The first of these components presumes that the interaction is a closed one, with one person taking the role of interrogator and the other being interviewed. The questioning procedure is usually concerned with eliciting information about previously perceived events, and so is heavily dependent on the interviewee's memory. The suggestive stimulus questions refer to questions that are in some way leading, in that they convey expectations and premises that can result in distorted responses. Acceptance of the stimulus message is indexed by the last component, an observable behavioural response. In Gudjonsson and Clark's terms, it is not sufficient that a person accept the suggestion conveyed in the questioning process; they are expected to demonstrate this acceptance by making an affirmative response indicating that they have done so. All of these components are operationalised within the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1984).

Suggestibility can be defined as a process of communication associated with some conviction about the truth of what is being communicated, even in the absence of logical grounds for its acceptance (see McDougall, 1943). As Coffin (1941) pointed out, various definitions of suggestibility usually imply uncritical acceptance of a proposition or a course of action. From this very general perspective, accepting propositions could range from responding to leading questions such as those employed in the GSS, to performing suggested behaviours included in hypnotic susceptibility measures.

Gheorghiu (1972) conceptualised the suggestive process as having three stages. The first stage comprises a suggestive stimulus, the second involves the susceptibility of the individual to influence, and the third is the suggestible reaction produced in response to the suggestive stimulus. Once again, such a process can adequately encompass contexts in which both hypnotic susceptibility and interrogative suggestibility are tested. In the light of all these theoretical perspectives, it seems plausible to argue that Gudjonsson's concept should be empirically related to the traditional concept of hypnotic susceptibility, denoting, as it does, the general applicability of the above definitions to the hypnotic setting.

Yet the empirical evidence suggests otherwise and the apparent contradiction has not yet been resolved. Gudjonsson proposed that suggestibility in the interrogation context is a result of a combination of a number of features of the setting which are separate but have the effect of leading subjects to respond in a particular way. There is, first, the structure or type of question; and, second, the interpersonal pressure applied by the interrogator. The GSS is designed to measure both these features. In practical terms the scale asks a series of leading questions about a verbally presented vignette, and determines a "yield" score for the subject which reflects primarily his/her individual propensity toward being misled by leading questions. This is considered to be the first component of the subjects' overall "interrogative suggestibility" (IS). The second component is the degree to which individuals are willing to "shift" or change their responses in accordance with their expectations. This

is realised through repeat testing when negative feedback from the interrogator is given in relation to subjects' initial responses. The two components form an overall IS score.

Gudjonsson has consistently argued for the independence of interrogative suggestibility from other types of suggestibility, including hypnotic susceptibility (Gudjonsson, 1984, 1987, 1991). Hadarson (1985, cited in Gudjonsson, 1986), for example, found no significant relationship between scores on the Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A; Shor & Orne, 1962) and interrogative suggestibility as measured on the GSS.

The first study to explore interrogative suggestibility in relation to hypnosis and to bear directly upon the relationship between hypnotic susceptibility and interrogative suggestibility in the hypnotic setting was that conducted by Register and Kihlstrom (1988). They used a variation of the GSS with high and low hypnotisable subjects, and measured only the yield component of IS. Using this partial replication of Gudjonsson's scale, and testing hypnotic subjects without a control group, Register and Kihlstrom found no effects of level of hypnotic susceptibility on the degree to which subjects accepted suggestions in hypnosis. They concluded, as did Gudjonsson (1986, 1987), that interrogative suggestibility and susceptibility to hypnosis are unrelated. Register and Kihlstrom went further, however, in their analysis. They tentatively proposed that interrogative suggestibility may be composed of three possibly independent components: response to negative feedback, response to leading questions, and response to repeated interrogation. Their design was not adequate to test such a general model, however, since it focused solely on responsiveness in the hypnotic setting and did not include appropriate control conditions for systematically investigating the effects of negative feedback contained within the GSS itself. The present study extended the conditions employed by Register and Kihlstrom to analyse the relation between interrogative suggestibility and hypnotisability on response to leading questions in both the hypnosis and waking settings. It was predicted that the two types of suggestibility are, in fact, related. The specific focus of this study was on the association between hypnotic responsiveness and the Yield and Shift scores that define Gudjonsson's concept of interrogative suggestibility. Control (neutral feedback) and experimental (negative feedback) conditions were incorporated into the design of the study to vary the interpersonal pressure component of the GSS, so as to probe for the effects of the pressure component said to be a key part of the concept of interrogative suggestibility.

METHOD

Subjects

The Harvard Group Scale of Hypnotic Susceptibility, Form A (Shor & Orne, 1962) was administered to 920 first year psychology students participating for course credit. Five hundred and thirty-seven subjects who scored in the

range 0 – 4 (low) and 8 – 12 (high) were contacted by letter offering further credit for participation. Of those contacted, 117 subjects returned for the experiment proper and were randomly assigned to conditions within a 2 (susceptibility: high, low) × 2 (state: hypnosis, waking) × 2 (feedback: neutral, negative) design. Fifty-six subjects achieved a mean hypnotic susceptibility score of 9.48 (SD = 1.16) on the HGSHS:A and were allocated to the high susceptibility group. The remaining 61 subjects were allocated to the low hypnotic susceptibility group, with a mean score of 2.39 (SD = 1.24). The experimenter remained blind to subjects' hypnotic susceptibility scores. Testing was conducted individually in sessions of approximately one hour's duration.

Materials

The primary material used was the Gudjonsson Suggestibility Scale (Gudjonsson, 1984) with minor modifications adapting it to the Australian context. The narrative component of the GSS is illustrated in Table 1, and Table 2 lists the questions employed in this study (adapted from Gudjonsson, 1984). The Tellegen Absorption Scale (Tellegen & Atkinson, 1974) and the shortened form of Betts' Questionnaire of Mental Imagery (Sheehan, 1967) were used as filler tasks to equate for time spent in hypnotic induction and de-induction, respectively.

Table 1 The Story Component of the Gudjonsson Suggestibility Scale

Anna Thomson[1] / of South[2] / Croydon[3] / was on holiday[4] / in Spain[5] / when she was held up[6] / outside her hotel[7] / and robbed of her handbag[8] / which contained 50 pounds worth[9] / of travellers cheques[10] / and her passport.[11] / She screamed for help[12] / and attempted to put up a fight[13] / by kicking one of the assailants[14] / in the shins.[15] / A police car shortly arrived[16] / and the woman was taken to the nearest police station[17] / where she was interviewed by Detective[18] / Sergeant[19] / Delgado.[20] / The woman reported that she had been attacked by three men[21] / one of whom she described as Oriental looking.[22] / The men were said to be slim[23] / and in their early twenties.[24] / The police officer was touched by the woman's story[25] / and advised her to contact the British Embassy.[26] / Six days later[27] / the police recovered the lady's handbag[28] / but the contents were never found.[29] / Three men were subsequently charged[30] / two of whom were convicted[31] / and given prison sentences.[32] / Only one[33] / had had previous convictions[34] / for similar offences.[35]/ The lady returned to Britain[36] / with her husband[37] / Simon[38] / and two friends[39] / but remained frightened of being out on her own.[40]/

Note: This narrative is adapted from Gudjonsson (1984). For the purposes of the present study, minor adaptations were made for the Australian context, namely, the woman was said to be from South Sydney (not Croydon); she had 50 dollars (not pounds) worth of traveller's cheques stolen; she reported the incident to the Australian (not British) Embassy; and she returned to Australia (not Britain) with her husband.

Rapport was manipulated as in Sheehan, Green, and Truesdale (1992) by the application of negative feedback and demands for better performance. In the present study, rapport was defined as the positive interaction of hypnotist

Table 2 Questions Employed in the Study

	"Yield" answer
1. Did the woman have a husband called Simon? (NS)	Not scored
2. Did the woman have one or two children? (S)	One/Two/Yes
3. Did the woman's glasses break in the struggle? (S)	Yes
4. Was the woman's name Anna Wilkinson? (S)	Yes
5. Was the woman interviewed by a detective sergeant? (NS)	Not scored
6. Were the assailants black or white? (S)	Black/White/Yes
7. Was the woman taken to the central police station? (S)	Yes
8. Did the woman's handbag get damaged in the struggle? (S)	Yes
9. Was the woman on holiday in Spain? (NS)	Not scored
10. Were the assailants convicted six weeks after their arrest? (S)	Yes
11. Did the woman's husband support her during the police interview? (S)	Yes
12. Did the woman hit one of the assailants with her fist or handbag? (S)	Fist/Handbag/Yes
13. Was the woman from South Sydney? (NS)	Not scored
14. Did one of the assailants shout at the woman? (S)	Yes
15. Were the assailants tall or short? (S)	Tall/Short/Yes
16. Did the woman's screams frighten the assailants? (S)	Yes
17. Was the police officer's name Delgado? (NS)	Not scored
18. Did the police give the woman a lift back to her hotel? (S)	Yes
19. Were the assailants armed with knives or guns? (S)	Knives/Guns/Yes
20. Did the woman's clothes get torn in the struggle? (S)	Yes

Note: Adapted from Gudjonsson (1984).
(S) = Suggestive questions.
(NS) = Non-suggestive questions.

and subject resulting in strong feelings of relaxation and comfort. The inclusion of a similar rapport measure provided a useful validity check in that subjects in the study should exhibit changes in rapport when the experimenter evaluates them; and such changes in feelings of comfort with the experimental situation can be assumed to be related to the interpersonal pressure manipulation. A seven-point scale (from *extremely uncomfortable and unrelaxed with the situation* [1] *to extremely comfortable and relaxed with the situation* [7]) was used, in which subjects rated (post experimentally) their perceived level of comfort during the session as a whole, and both before and after the feedback manipulation.

Procedure

To establish consistency between subjects' expectations prior to the experiment proper, all were informed that the study was concerned with parameters affecting

memory for verbally presented material, and that during the course of the experiment they would be doing some items similar to those with which they had previously been involved in the group hypnosis session.

An initial rating of rapport was taken and the story component of the GSS was then presented verbally to all subjects with the instructions:

> "I want you to listen to a short story. Listen carefully because when I am finished I want you to tell me everything you remember."

After the story had been read out subjects were told the following:

> "Now tell me everything you remember about the story."

Free recall was scored in terms of the number of ideas recalled immediately (Gudjonsson, 1984), and scoring was complete when subjects reported that they could remember no more. Subjects were not prompted for further recall, in accordance with Gudjonsson's procedure.

At this point, for those in the hypnosis condition, a standard hypnosis induction procedure was administered, while those in the waking condition completed the Tellegen Absorption Scale. This induction procedure involved the presentation of suggestions for progressive muscle relaxation. Suggestion tasks included hand-lowering, hypnotic dream, pseudo anaesthesia, arm immobilisation, and age regression and were administered individually in that order to all subjects. Subjects in the waking condition were given specific instructions to remain out of hypnosis at all times.

At the conclusion of age regression testing, all subjects were again tested for their free recall of the story and rated their level of rapport once more. At this point the first administration of the Gudjonsson questions occurred (producing Yield1 scores). Responses to all questions were recorded verbatim. The standard set of questions was administered again at this point (producing Yield2 and Shift scores), with subjects in the negative feedback condition first receiving the original Gudjonsson (1984) instructions:

> "You have made a number of errors. It is therefore necessary to go through the questions once more, and this time try to be more accurate."

Those in the neutral feedback condition received the following instructions:

> "Let's just go through the questions once more."

Following the repeated administration of the questions, and the final rating of rapport, de-induction procedures were administered to those in the hypnosis condition, while those in the waking condition completed the Betts' QMI. A brief post-experimental inquiry was then conducted. This inquired into subjects' perceived level of hypnotic depth, their hypnotic depth being rated on a six-point scale ranging from *not hypnotised at all* [1] through to *profoundly hypnotised* [6]. Subjects were also questioned as to their perceptions concerning both the purpose of the study and the purpose of the second administration

of the questions. Finally, subjects were fully debriefed and requested not to discuss the experiment outside the laboratory.

RESULTS

Rapport

Analysis of subjects' ratings of feelings of comfort with the situation were analysed using a multivariate analysis of variance with "time" (that is, responses at times one, two, and three) as a within-subjects' factor. This analysis showed a significant interaction of time by feedback condition, (F (2, 218) = 10.00, $p < .001$). Subjects receiving negative feedback showed significantly higher feelings of discomfort than those receiving neutral feedback. This suggests that the administration of feedback clearly influenced subjects' perceptions of comfort, and that the negative feedback manipulation operated in the way that was intended.

Hypnotic Depth

Analysis of post-experimental ratings of perceived level of hypnotic depth during the experiment revealed a significant interaction of susceptibility and state instruction, ($F(1, 109) = 7.53$, $p < .007$). As predicted, if the state instruction procedures were effective, subjects who are high in susceptibility should rate themselves as having been more deeply hypnotised than subjects low in susceptibility, with greater depth being reported by subjects in the hypnosis as opposed to the waking condition. The mean depth scores (range: 1–6) for high susceptible subjects in the hypnosis condition were 3.50, versus 2.17 in the waking condition. Mean depth scores for low susceptible subjects were 2.03 and 1.52 in the hypnosis and the waking conditions respectively.

Scoring Criteria for the Gudjonsson Suggestibility Scale

The scoring criteria for the scale is based explicitly on that used by Gudjonsson (1984).

For the purposes of scoring free recall, the narrative (see Table 1) was parsed into 40 units, and each unit recalled was scored as one point. It was not required of the subject that they recall the units verbatim, but rather that they recall the meaning of each idea. The range on this free recall component was 0 to 40.

The suggestibility measures were: Yield1, Yield2, Shift, and Total. The Yield1 score totalled the number of suggestive questions answered in the affirmative. When a false alternative was given by the subject it was also scored as a Yield (Gudjonsson, 1984). The possible range of values was 0 to 15. The scoring criteria for Yield2 were identical to those of Yield1, but related to the second time the scale was administered. Shift was scored where a distinct change occurred in the response to any of the 15 suggestive questions between the first and the second administration: for example, changes from "yes" to "no"

from first test to second test, or vice versa; "yes or no" to "don't know" or vice versa; changes from one false alternative to another or to "yes," "no," or "don't know" or vice versa. The shift must represent a change in meaning, and not simply a change in wording (for example, "not sure" to "don't know").

Analysis of Free Recall 1 and Free Recall 2

Analyses of variance of the free recall scores revealed no significant effects for any of the parameters under investigation.

Total Suggestibility

A 2 (susceptibility: high, low) × 2 (state instruction: hypnosis, waking) × 2 (feedback: negative, neutral) analysis of variance of the Total Suggestibility scores (the sum of Yield and Shift scores) for each subject revealed main effects for both susceptibility (F (1, 109) = 6.44, $p < .013$), and feedback (F (1, 109) = 14.56, $p < .001$). Highly susceptible subjects had greater overall Total Suggestibility scores than did low susceptible subjects as did those subjects receiving negative as opposed to neutral feedback. Individual mean scores for this analysis are presented in Table 3.

Table 3 Mean Total Suggestibility Scores by State Instruction, Susceptibility and Feedback Condition

State instruction and susceptibility group	Feedback condition	
	Negative	Neutral
Hypnosis		
High	9.08	7.77
	(2.78)	(2.74)
Low	9.00	5.69
	(3.37)	(3.95)
Waking		
High	9.00	7.13
	(4.21)	(2.99)
Low	7.53	4.25
	(4.63)	(2.18)

Note: Range = 0–30
Standard deviations are shown in parentheses.

Analysis of Yield and Shift Scores

Yield1: A 2 (susceptibility: high, low) × 2 (state instruction: hypnosis, waking) × (feedback: negative, neutral) analysis of variance of yield scores for the first presentation of the questions (Yield1) revealed a significant main effect for susceptibility, (F(1, 109) = 9.47, $p < .003$). High hypnotically susceptible subjects accepted appreciably more suggestions, (that is, responded affirmatively to more misleading questions), than did low susceptible subjects. No other main effects or interactions were observed.

Yield2: A 2 (susceptibility: high, low) × 2 (state instruction: hypnosis, waking) × 2 (feedback: negative, neutral) analysis of variance of subjects' Yield2 scores, that is, the number of suggestions accepted by the subject during the second presentation of the stimulus questions showed significant main effects for both susceptibility (F (1, 109) = 9.28, $p < .003$), and feedback (F (1, 109) = 4.56, $p < .035$). Effects were in the same direction as those found for Total Suggestibility described above.

Shift: A 2 (susceptibility: high, low) × 2 (state instruction: hypnosis, waking) × 2 (feedback: negative, neutral) analysis of variance of the number of questions on which subjects shifted their responses from the first to the second administration (Shift) showed a significant main effect for feedback (F (1, 109) = 40.87, $p < .001$). Subjects receiving negative feedback changed their responses appreciably more than did subjects who received neutral feedback. Table 4 sets out the means scores for subjects on the Yield1, Yield2, and Shift measures.

Table 4 Mean Yield1, Yield2, and Shift Scores by State Instruction, Susceptibility and Feedback Condition

State instruction, susceptibility and feedback condition	Yield1	Yield2	Shift
Hypnosis			
High			
Negative	3.54	5.62	5.54
	(2.30)	(2.90)	(2.07)
Neutral	5.00	5.54	2.77
	(3.37)	(2.90)	(1.92)
Low			
Negative	2.93	4.57	6.07
	(1.90)	(3.07)	(2.59)
Neutral	3.06	3.06	2.63
	(2.35)	(2.79)	(2.25)
Waking			
High			
Negative	3.86	5.50	5.14
	(2.14)	(2.98)	(2.85)
Neutral	4.19	5.19	2.94
	(2.34)	(3.41)	(1.88)
Low			
Negative	3.00	5.20	4.53
	(2.27)	(3.26)	(3.14)
Neutral	2.31	2.63	1.94
	(1.62)	(1.46)	(1.48)

Note: Range on Yield1, Yield2, and Shift = 0–15.
Standard deviations are shown in parentheses.

DISCUSSION

The most important finding to emerge from this study is that subjects who are highly responsive to hypnosis are more likely than those who are not to yield to leading questions in an interrogation context. This finding calls into question previous assertions as to the independence of hypnotic susceptibility and interrogative suggestibility and has implications for how the issue of suggestibility, in a general sense, is to be conceptualised and further investigated. The significant effects of hypnotic susceptibility on the "yield" component of the GSS, for example, lends credence to the notion that interrogative suggestibility and hypnotic susceptibility may well be expressions of an underlying characteristic of the individual that finds expression in a variety of contexts where "suggestibility" plays a key role in determining responses.

The finding that subjects shifted responses to some degree in the neutral feedback condition suggests that at least one component of overall interrogative suggestibility is simply a response to repeated questioning. As Register and Kihlstrom (1988) pointed out, a simple retest may be sufficient to suggest to subjects that at least some of their initial responses may be erroneous or in some way unacceptable and that, therefore, they should change their answers.

There are also indications in the literature that the methodology used is a critical factor in determining the nature of obtained effects, despite the fact that acceptance of misleading information is the phenomenon being targeted across different studies. In the present study, for example, there was no evidence of a state instruction effect, and strong support for a level of susceptibility effect. For pseudomemories, however, a state instruction effect has frequently been observed, hypnotic instructions creating appreciably more pseudomemories than waking instructions (for example, Sheehan et al., 1992). Why it is that acceptance of false information is stronger in hypnosis than waking consciousness when pseudomemories are induced is not entirely clear. It may be that leading questions more subtly convey incorrect information, whereas the induction of pseudomemory requires the hypnotist to communicate explicit suggestions in hypnosis about events that are not true and which are (usually) tested post-hypnotically.

In interpreting effects in the literature, there are other methodological factors that need to be taken into account than simply the presence or absence of hypnotic instruction. One of these is the extent of the aptitude for hypnosis shown by the subjects who are tested. Putnam (1979), for example, found that subjects in hypnosis made more errors than subjects in a waking control condition when asked leading versus non-leading/objective questions about a previously presented film depicting a traffic accident. This finding was replicated by Zelig and Beidleman (1981) using similar procedures. These authors examined the effects of hypnosis on subjects' responses to leading (false) and non-leading (true) questions asked about a stress-provoking film depicting industrial accidents. Their data showed that subjects in hypnosis tended to accept more false information than those in a waking state, that is, they made

more errors in response to leading questions. In both these studies, however, susceptibility and state-instruction were at least partially confounded, in that all subjects were drawn from a moderate to high range of hypnotic ability.

Present data not only confirm that a dependence exists between interrogative suggestibility and hypnotic susceptibility, but the presence of an association between these two types of suggestibility has now been replicated when hypnotic responsiveness is tested independently of interrogative suggestibility (as in the present study), and when it is not. A recent study by Sheehan, Garnett, and Robertson (1993), for instance, incorporated an administration of the GSS into their testing and presented the scale to all subjects in the waking state. Results in their study and the present study show significant effects for level of hypnotic susceptibility on the yield but not the shift component of interrogative suggestibility, and on the total suggestibility scores. The present study also duplicated the Sheehan et al. (1993) finding that high susceptible subjects responded significantly more affirmatively to leading questions than did low susceptible subjects.

Register and Kihlstrom (1988) used a shift measure in the absence of feedback, their data indicating that a propensity to shift occurred as a result of repeated questioning (but no susceptibility effects were indicated). In the present study, systematic examination of feedback by indexing the interpersonal pressure component of the GSS showed that there was appreciably greater acceptance of misleading information by subjects receiving negative as opposed to neutral feedback (see Table 3). This finding suggests that interpersonal pressure is a major component of interrogative suggestibility and likely to be a factor that positively influences the extent to which misleading information will be reported in an interrogative setting.

Some forensic implications

Rejecting the conclusion that hypnotisable subjects are neither more nor less responsive to accepting misinformation during interrogation than insusceptible subjects has a number of forensic implications. First, it implies that level of susceptibility is a relevant parameter in how a witness will respond when interrogated in the legal setting. Specifically, those subjects who are more susceptible to hypnosis are likely to yield more to suggestion when they are questioned. Second, the degree of pressure placed on witnesses is also likely to make a difference. On the basis of the pattern of findings in the present study, and generalising from the arguments of Gudjonsson and Clark (1986), negative feedback is likely to make susceptible witnesses more suggestible during re-interrogation and to elicit erroneous accounts, and this seems to be especially the case when false or misleading information is communicated by the person who is asking the questions.

The data from this study have strongly indicated that when asked about previously witnessed events, people's responses are markedly affected by the type of questions used to elicit this information and by the explicit application of

interpersonal pressure. The pragmatic question remains to be addressed, however, as to whether responses elicited in such manner accurately reflect the knowledge state of witnesses or are perhaps more the result of a lowering of the criterion above which people will respond affirmatively to plausible incorrect premises relating to previously witnessed events. In this light, it would be fruitful to investigate the conditions under which accuracy could be enhanced, or the contingencies for responses managed in such a way as to maximise the likelihood that witnesses' reports are more truly reflective of their memories concerning events.

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HYPNOSIS IN THE TREATMENT OF DENTAL PHOBIA

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This case concerns the use of hypnosis in dental practice. The aim of treatment for Sally was to reduce her dental anxiety related to having fillings by utilising pharmacological agents in conjunction with hypnosis to achieve systematic desensitisation to the dental drill. Over several visits graded exposures allowed the completion of her dental treatment and Sally is now able to attend regularly to meet her dental needs. This case shows how hypnosis can be effectively incorporated into a dental practice, keeping within the boundaries of practitioner expertise.

The patient, Sally, was, at the time of presentation, a 30-year-old registered nurse, working in a night shift position in a renal unit of a major metropolitan public hospital. She lives with her husband of 10 years in an outer suburb of Melbourne. She had no history of psychosis, depression, or personality disorder. Sally appeared to be a socially well-adjusted person who was acutely anxious at her dental appointment in August 1991.

First Visit

Her first consultation appeared to be very traumatic for Sally. No hypnotherapy or dental treatment was conducted during this visit, but an assessment of her specific needs and treatment options was undertaken. I did not attempt an oral examination, given her anxiety state.

Her presenting complaint was that of pain, severe enough for her to have sought out treatment. The major factor that influenced Sally's underutilisation of dental treatment was an acute anxiety, associated with her dental phobia. The acute presentation of that phobia was her crying to the extent that she was unintelligible. I removed her from the dental situation to a less threatening lounge chair. Discussion with her showed that Sally's dental phobias related to three things. The least intense of these was a general fear of the dental

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This case history was submitted in part completion of the Australian Society of Hypnosis Board of Education examination process.

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situation. The two more specific fears related to the two most common specific dental phobias: injections and "the drill."

Further questioning revealed that the genesis of these fears was a clearly remembered dental experience from childhood, in which she reported an insensitive dentist who bullied her despite her experiencing pain from the dental handpiece. Thus both the feel and the noise of the drill had become noxious stimuli.

We decided that a further appointment was needed to assess Sally's response to hypnosis in conjunction with nitrous oxide sedation. If possible, at that visit a comprehensive dental examination was to be completed.

Second Visit

The second visit consisted of an assessment of Sally's hypnotisability, together with an attempt to examine her mouth so that a comprehensive dental examination could be completed. This approach was used in my attempt to help Sally gain confidence in the dental situation and as a step towards systematic desensitisation (Clarke & Jackson, 1983). Sally was accompanied to the surgery by a friend and was apprehensive on arrival. She had been advised that an early morning appointment was appropriate, since this reduced the time that she need spend during the day anticipating the visit. She was seen promptly on arrival because apprehension builds with each minute the patient is left in the waiting room. It was decided that it would be appropriate to use nitrous oxide sedation during the assessment, since the two modalities are synergistic in their effect.

Sally was seated, laid halfway back in the dental chair and supplied with a small nitrous oxide mask. The machine utilised was a continuous flow machine and supplied a mixture which I set at 40% nitrous oxide and 60% oxygen, at a flow rate of 10 litres per minute. Throughout the session, classical music was played quietly in the background.

I assessed her hypnotic capacity using the Creative Imagination Scale (Wilson & Barber, 1978). Sally scored 20 on this scale, suggesting that she was a reasonably good hypnotic subject. The level of relaxation she achieved was sufficient to allow a dental examination to be conducted. We formulated a treatment plan and Sally was given a suggestion of mastery over her phobia, demonstrated in her toleration of the dental examination. She was "counted out" of her trance and allowed to breath 100% oxygen for a few minutes. The mask was removed, she sat up and was questioned about her experience. She was quite relaxed and happy that the visit was finished. She appeared ready to proceed at the next visit with some operative dentistry.

Third Visit

The treatment plan we formulated was for cleaning, three fillings and two wisdom tooth extractions. On this visit Sally was again accompanied to the surgery and had self-medicated before presentation with 5 mg of diazepam

taken early that morning. This was not considered to be a problem, as this medication would act synergistically with the nitrous oxide and the relaxation I intended to use for the hypnotic induction (Gerschman, 1988). I kept a close eye on her responsiveness and decided that a lesser concentration of nitrous oxide was required. Seventy per cent oxygen was deemed to be suitable for relative analgesia.

Sally was laid back in the chair and supplied with a nitrous oxide mask which delivered 30% nitrous oxide. She was given a progressive muscular relaxation which started at her toes and moved towards her head. Positive signs of relaxation were observed during this procedure, in that her fingers and hands were seen to twitch during the suggestion that her hands could relax. As the relaxation progressed towards her head, I suggested that her mind could relax along with her body and that it would be possible to cast all worries aside. This method of induction is very similar to the first part of the Stanford Hypnotic Clinical Scale (Hilgard & Hilgard, 1975).

A deepening technique was used, in which Sally was told to imagine that she was in a pleasant field next to a pleasant stream. In her hand she held 10 leaves. She was instructed that as I counted from 1 to 10 she should, with each count, drop a leaf into the stream and watch it disappear with the current. As each leaf disappeared, so would Sally's anxiety. This deepening technique was very successful and at its completion Sally responded that she was quite relaxed, with minimal apprehension and that she was ready to proceed. She was supplied with a Walkman and a tape of classical music, so the noise of the drill would be reduced. Topical anaesthetic was used prior to placement of her lignocaine injections. She had no difficulty tolerating the injections. A rubber dam was placed prior to the commencement of the operative procedures. Sally was seen to tighten up with the sound of the high-speed handpiece, but tolerated the feel of this on her tooth. However, as it was applied she was seen to become more and more tense. Her muscle tension increased considerably and she started to display white knuckles. At this stage the drilling was stopped and Sally was again instructed to help achieve relaxation. She was instructed to allow her body and her mind to relax with each expiration. After several minutes she appeared more relaxed and the instrumentation was started again. During this visit it was planned to complete two fillings, each of one surface, an extensive clean and the extraction of an upper wisdom tooth. With time, several cycles of start, stop, relax, the drilling was completed. The fillings were not large and this assisted in the process. Once the drilling was completed, the placement of the fillings was very straightforward. The rubber dam facilitated this in several ways. First, it encouraged shallow nasal breathing, which helps the patient retain an adequate level of nitrous oxide. In addition, it masked the subjective feelings of an operator being in the mouth, so that the procedures are subjectively felt as less invasive.

Sally had been able to complete her most feared aspect of dentistry, to have fillings. She was congratulated on her achievement and we decided it

would be appropriate to proceed with cleaning and with the extraction. Because of the site of the operative procedures, the entire right side of her mouth was anaesthetised. This was desirable because the ultrasonic cleaner can sometimes be sensitive on the teeth. Since this device emits an unpleasant noise not dissimilar to the drill we considered it was important that no pain should result from this (or any other) procedure. Therefore, the cleaner was set to the lowest possible power and the teeth on the right-hand side, upper and lower were cleaned and polished. The subjective feel of the cleaner is different from the drill and Sally tolerated this procedure well. After the clean, the polishing was achieved by using the drill with some polishing brushes inserted. This was deemed useful to help accomplish the desensitisation that was required.

After the cleaning, Sally rinsed her mouth very thoroughly, to remove any debris that could contaminate the extraction socket. While she was sitting up, her upper wisdom tooth was tested for adequate anaesthesia and then easily extracted with an elevator. The patient tolerated that procedure extremely well. A pack was placed and Sally was given 100% oxygen for a few minutes. She was told that she had done extremely well and that now she could tolerate any dental procedure. In the future she would not become as apprehensive either before or during the dental appointment. She was told that each time she came, she would be less anxious and more confident and I reinforced the idea that her previous dentist was not here and that, in my surgery, she would be fine. She was then told that the nitrous oxide can sometimes make people a little amnesic and that as I counted from 1 to 10 it might become so difficult to remember the session that it would be easier just to forget. Sally was then counted out of hypnosis and told that she would be alert and have a feeling of well-being for the remainder of the day.

Sally stated that she felt the procedure had gone well and, upon questioning, could not recall the procedure. Thus she seemed quite capable of having good post-hypnotic amnesia. Post-operative instructions were given, Sally was congratulated and given her next appointment eight weeks hence.

Fourth Visit

This visit saw Sally present by herself. She was once again seen early morning and was promptly attended to. She had driven herself to the surgery and had not pre-medicated. She was apprehensive but ready to accept more treatment. She had experienced a little, but acceptable, amount of post-operative pain. Healing had been uneventful.

Sally was seated and supplied with a nitrous oxide mask. She was administered a mixture of 60% oxygen and 40% nitrous oxide at a flow rate of 10 litres per minute. The induction was somewhat different from that which she had previously experienced. I asked her to supply a name for a person and a small face was drawn with a marking pen on the thumbnail of her non-dominant (left) hand. This person was given the name she had supplied.

Sally was instructed to raise her left hand and to extend her thumb so that she could see the face. She was told to focus her eyes on the face and asked to note that, when her gaze was focused on the face, the background would be merely a blur. Then she was instructed that her gaze could be refocused past the face to the background. When this was done she was asked to note how the face was then merely a blur. Sally was asked to refocus from the face to the background a few times and to notice how one could be the focus while the other was so blurred that it was almost not there. Next Sally was asked to listen to noises within the room. She was asked to notice that, as her focus was directed towards noises within the room, noises outside the room seemed to fade into the background until they were barely noticeable. She was then asked to refocus her attention to noises external to the room. When this occurred, she was asked to notice that the noises within the room were barely perceptible. She was asked to observe the comparison between the focus of attention of both visual and auditory stimuli. It was suggested that she was able to selectively exclude all of those stimuli that she did not need to hear or to see.

Next Sally was asked to refocus on her face and told to notice that each time she breathed in the face rose up and that each time she breathed out the face dropped. She was instructed to become aware of the great heaviness in her hand and arm and to notice that whenever the hand fell it never quite rose back up as far as it had been previously. Thus, I suggested to Sally that as her hand and arm became heavier it would become more and more difficult to keep her hand and arm up. Also she was told that as her hand became heavier so her eyelids would become heavier. She was told that her hand would inevitably drop and would eventually reach her lap. When this occurred, her eyes would become so heavy they would have to close. Sally was told that when her eyes did close, a wave of relaxation would sweep through her body.

The deepening technique used was the same as that used during the previous session. Sally was asked to imagine a pleasant field setting with a stream and to drop 10 leaves into the stream with a count from 1 to 10. At this stage Sally was comfortable, relaxed, and in a pleasant trance. She was supplied with a Walkman and placement of topical anaesthetic and local anaesthetic commenced. Sally experienced no problems with these procedures. A rubber dam was placed and her one remaining filling was commenced.

With the noise and feel of the drill Sally was seen to tighten up. She had been instructed to raise her hand if she needed the procedure to stop and did require that the procedure be stopped two or three times. At these times she was instructed to focus her attention on certain body parts (such as her hands and shoulders) and to allow those parts to relax. She was instructed that as those parts relaxed her mind would also be able to relax. It was suggested that with time she would be able to use those parts to self-assess her level of tension and that, by allowing those body parts to relax, she would be able to allow her mind to relax and become less tense.

The placement of the filling was very simple and soon completed. After the removal of the rubber dam cleaning of the upper and lower left teeth was completed and the simple extraction of an upper wisdom tooth was completed. These procedures were easily tolerated and proceeded with no apparent problems for Sally. After the completion of these procedures a pack was placed and Sally was administered 100% oxygen for a few minutes. She was congratulated on her successful completion of a course of dental treatment and it was suggested that the next time she presented she would be far less apprehensive and that each time she presented she would continue to feel better. Suggestions for post-operative amnesia were given and Sally was counted out of trance.

Sally was once again largely amnesic for the procedures, but was happy that they had been completed and was comfortable with her result. She was given post-operative instructions and congratulated once again.

DISCUSSION

To accomplish effective treatment, a correct diagnosis and treatment plan must be formulated. In this case the diagnosis was made between a simple and multiple phobias with or without panic attacks. There was no history of other phobias or of panic attacks, so I was confident that I was dealing with a simple phobia.

The aim of treatment in this case was to achieve "tolerable" dentistry that is easier for both the patient and the clinician. To achieve this, both pharmacological and psychological interventions were considered appropriate. The psychological interventions I utilised were behavioural (systematic desensitisation) and cognitive behavioural techniques. Examples of the latter were explanations to the patient, teaching of control (e.g., patient raising her hand to terminate a procedure), distraction (e.g., music), and relaxation (Gerschman, 1988).

Gerschman (1988) has outlined the uses of dental hypnosis. This modality combines well with other interventions such as behavioural therapy, especially when the subject is moderately to highly hypnotisable, as is the case with Sally, who scored a 20 on the CIS and who responded well to hypnotic suggestions (Rose, 1990). Sally also seemed to increase her ability for rapid and deep inductions with each session.

The use of pharmacological agents in combination is also beneficial. Both benzodiazepines and nitrous oxide combine well with psychological techniques, especially in the maintenance of relaxation. Clarke and Jackson (1983) have discussed the management of phobic anxiety, in which one challenges the client's avoidance behaviour. In such instances the therapy must have both cognitive and behavioural components, as cognitive components alone will not produce the desired result. The essence of the treatment consists of graded exposures to the fearful stimuli. The patient enters a situation and stays in the fearful situation until a reduction in anxiety occurs. The technique of systematic desensitisation is to teach a coping technique and then to allow

graded imaginal or real exposures. One possibility with this approach is the problem of symptom substitution. There was no evidence that this occurred with Sally.

Clarke and Jackson (1983) showed three formats for patient expectancies and acceptance of change. They may expect no change, a sudden "all at once" change, or a gradual change. The last named was the type of change that Sally expected and that was the type of change that occurred.

Clarke and Jackson (1983) have also outlined the "guessing" technique, which has been used to explore the role of previous experience on the present problem. They gave an example of age regression to explore the repressed memory of childhood sexual abuse. Although I am not qualified to attempt such a procedure, it would seem that a similar age regression to the time of Sally's previous dental trauma could be used beneficially to resolve some residual conflict. Such a technique might involve viewing herself on television and moving her into or out of the situation with age regression as needed. Thus the older self might be able to give messages to the younger self and vice versa. Also, both the old and young self could perhaps give dialogue to the dentist and perhaps recreate the situation so that Sally had more control. As such, a more acceptable outcome to that time might be imagined. This type of framework can be considered as lying within the dissociative paradigm of Hilgard (1979).

Sally has attended since these visits and has continued to improve. The first attendance was for a broken tooth, which was repaired using hypnosis and relative analgesia with local anaesthetic. This procedure was once again reasonably well tolerated. Sally has continued to gain confidence, evidenced by the fact that her most recent appointment was self-initiated for a routine check and clean prior to an overseas trip. For this visit Sally did not require the use of nitrous oxide. Thus the long-term prognosis for Sally must be viewed optimistically.

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HYPNOSIS IN THE TREATMENT OF PANIC DISORDER WITH AGORAPHOBIA

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This case illustrates the management of panic disorder with agoraphobia, utilising hypnotherapeutic, cognitive-behavioural and pharmacological therapies to produce effective relief of symptoms. The experience of improved self efficacy and the shift to an internal locus of control led to an exploration of earlier conflicts and traumas which were linked to the patient's current symptomatology and contributed to a favourable therapeutic outcome.

Peter is a 38-year-old technician, with a history of panic disorder and phobic avoidance. He was referred to the department of psychiatry at his local hospital by his cardiologist.

Peter's first episode of panic occurred seven years previously after his girlfriend at the time had become pregnant and the couple had decided to get married. In the first half of his wife's pregnancy, Peter's alcohol consumption increased markedly, such that he was drinking between six and eight glasses of beer per day. Binges involving the consumption of up to 20 glasses in one night were frequent, particularly on weekends. Peter's first episode of panic occurred the morning after a particularly excessive drinking binge and was characterised by a sudden onset of palpitations, central chest pressure, dizziness and a feeling he was about to faint. His respiration became rapid and shallow, perioral numbness and a tingling sensation in his fingers and toes were noted together with a subjective sensation of apprehension and a feeling he was about to lose his life. Peter believed that he was experiencing a heart attack. The episode lasted about 30 minutes although the subsequent apprehension was of several hours' duration. He presented himself to the emergency department at a local hospital where investigations were carried out which excluded any cardiac or other organic aetiology. Although partially reassured by this, he felt exhausted, weakened and frightened by that initial experience. In the months following, Peter experienced similar episodes of

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spontaneous panic at least two or three times a week. The association with alcohol was not maintained and attacks occurred during periods of abstinence also. Following the birth of his son, symptoms abated, attacks occurring about two or three times a month. Anxiety, however, became more generalised and associated with phobic avoidance. He was apprehensive throughout the day and he also became isolated and more reluctant to enter situations that were novel or unpredictable.

He visited his local doctor seeking help and was given reassurance and, on one occasion, a trial of beta-blockers was attempted without producing any relief of symptoms. Peter's GP then referred him to a psychiatrist who engaged him in individual dynamic psychotherapy for about 30 sessions. He experienced a gradual improvement in his symptoms during and after the completion of therapy. A second son was born two years later and it was at about this time that he was able to start going out again "without fear." Panic attacks became less frequent, occurring about once every month, were less severe and of shorter duration. Anxiety was no longer a constant feature and the phobic avoidance ceased completely. Significantly, his relationship with his wife had not improved since their marriage. He started spending less time at home, continued to drink alcohol on a daily basis and now engaged in a number of extramarital affairs. Peter's wife finally left him three years ago and initiated a property settlement through the Family Law Court. The bitter and protracted legal proceedings extended over a period of 18 months during which Peter experienced an exacerbation of symptoms far worse than any he had had to date, with generalised anxiety, phobic avoidance, and frequent panic attacks during which he reported feelings of depersonalisation.

Peter was referred for individual psychotherapy once again but the treatment was terminated after eight sessions due to the therapist's unexpected retirement. He was referred to a psychologist for three sessions of relaxation therapy. Neither treatment proved effective in ameliorating the symptoms. Subsequently, he returned to his local doctor who commenced Alprazolam 0.5 mg bd with a rapid relief of anxiety.

Over the following nine months, Peter was relieved of symptoms to such an extent that he regarded himself as symptom-free with mild anticipatory anxiety only prior to exposure to previously feared situations, no phobic avoidance, and the occasional limited symptom panic attack. He was successfully weaned off his medication without an exacerbation of symptoms. That year, Peter became involved in a relationship for about 12 months before terminating it because of his inability to cope with his partner's teenage children. Just prior to that, increasing stresses within the relationship had led to an exacerbation of symptoms which, however, abated upon separation and did not recur until the current exacerbation some 12 months later. He became involved with his current partner about 15 months ago and moved in with her eight months later.

The most recent exacerbation of symptoms commenced unexpectedly 13 months prior to the current presentation. The first episode occurred the morning

after a night of excessive alcohol consumption when Peter noted his heart beating irregularly. This precipitated a panic attack characterised by apprehension, perspiration, hyperventilation, a feeling of constriction over the centre of the chest, peripheral paraesthesia and nausea. It lasted thirty minutes and was followed by persistent anxiety for the remainder of the day.

Over subsequent months, Peter experienced two or three panic attacks a week. Although he had experienced panic attacks previously, he became convinced that this time the problem was not anxiety-related but that he was suffering from cardiac disease. Frequent visits to his general practitioner followed. No evidence of heart disease was found. Despite this, he avoided engaging in even minor exertion for fear of triggering an attack. His condition improved briefly after he moved in with his de facto before deteriorating again some two months later. Four months before presentation, Peter and his companion spent three weeks interstate on holiday. On the return drive, he experienced an episode of panic precipitated by a sensation of severe burning retrosternal pain which lasted about 30 minutes. Three weeks later, he presented to the emergency department at his local hospital for investigation of this pain which was by now occurring about once a week in association with panic. No precipitating or relieving factors could be identified.

The physical examination was unremarkable and the ECG was normal. A provisional diagnosis of oesophageal reflux was made and Peter was reassured and prescribed an antacid for relief of further pain. He remained unconvinced by the medical opinion that his pain was not cardiac in origin. A pattern of mild to moderate agoraphobic avoidance evident in previous exacerbations became re-established. This was characterised by anticipatory anxiety prior to going to work, travelling alone on public transport or going out with friends, together with some avoidance of these activities. At the same time, his relationship with his de facto deteriorated considerably. He became depressed in mood because he feared he was sure to die in the near future and had been abandoned by the medical profession.

Peter re-presented to the emergency department one month before psychiatric assessment seeking further investigation of what he described as persistent missed beats precipitated by minimal exertion. The physical examination and ECG were unremarkable. Arrangements were made for Peter to be monitored with a Holter device for 24 hours before being referred to the cardiology outpatients department at the hospital. The Holter monitor detected occasional ventricular ectopics which were considered benign in origin.

The cardiologist elicited a history of panic attacks and generalised anxiety and referred him to the department of psychiatry for ongoing management after reassuring him of his physical well-being.

SOCIAL AND FAMILY HISTORY

There is no family history of psychiatric disorder. Peter was the older of two siblings, his sister being two years his junior. His father was an engineer who

emigrated to Australia after the Second World War at the age of 21. He studied at university part-time while supporting himself through factory and cleaning jobs during the day. Peter's parents had a difficult marriage. His mother is described as having dedicated her life to the upbringing of her children. In contrast to her husband, she was always present at home and was a reliable source of comfort and affection for Peter. She died prematurely in her forties. In contrast, Peter's father was experienced as emotionally unavailable and feared. Yet in many ways, he was also greatly admired and depended upon. In adulthood, Peter is no longer intimidated by his father, for whom he feels considerable affection, yet their relationship remains formal and distant. His sister lives overseas and they correspond infrequently.

Peter left school at the end of fifth form and commenced a technical course at a local college. He qualified as a technician in 1973 and has worked for the same company ever since. Peter's adolescence was marked by two major traumas. When he was 12 he witnessed his father, aged 41, having a heart attack. Then, when he was 15, his mother developed cancer. Her deterioration was rapid and she died in less than 12 months. Peter experienced his mother's death as an overwhelming loss. He described this period in a flat affectless way, though later in therapy indicated he had not grieved for her appropriately. Peter left school at the end of the year his mother died. Aged 22, he married a woman he had been dating for some years, but the relationship lasted 12 months before the two were separated. Peter thereafter led what he described as a bachelor lifestyle with a number of short-term relationships until aged 31, when he met and then married his second wife after she became pregnant. He has two sons aged six and four from this marriage, who live with their mother. The presenting illness developed during the course of this marriage. He has been involved in his current de facto relationship for about 15 months. His partner is a divorced mother of three children who live independently.

PROVISIONAL DIAGNOSIS

Axis I: Panic Disorder with Agoraphobia. Axis II: Dependent and Obsessional Personality Traits. Axis III: Hypertension. Axis IV: Psychosocial Stressors. Severity 3 moderate (acute event). Commencing de facto relationship six months previously and subsequent discord. Axis V: Global Assessment of Functioning (GAF). Current 60 moderate symptoms and difficulty in social functioning. Highest GAF in past year: 75 transient to mild symptoms.

TREATMENT

Sessions 1 and 2

The first two sessions were dedicated to history-taking, diagnostic education, and management planning. Peter was asked to formulate his treatment aims and these were operationalised as follows:

1. Cessation of panic attacks.
2. Facilitation of the following activities all of which currently provoke panic attacks or anticipatory anxiety (described in order of increasing difficulty): (a) travelling on public transport; (b) entering shopping centres; (c) physical exertion of any form; (d) going out to restaurants; and (e) unexpected situations at work.

Education regarding the implications of the clinical diagnosis was necessary at the outset. Clarke & Jackson (1983) described "rationale therapy" as an important component in the management of anxiety disorders. This involves the explicit provision of facts about the disorder, its natural history, and the different treatment modalities to be applied. The patient's ideas of what has produced the symptomatology also require exploration in order to explode any myths, if present. Peter still feared that his symptoms were indicative of incipient heart disease and he was reassured that none of the investigations carried out thus far supported this. The nature of panic disorder and agoraphobia as well as the natural history of the syndrome were discussed with a particular emphasis placed upon the chronic nature of this disorder, the frequency of relapse, and the importance of ongoing treatment and follow-up. Although time constraints would limit our contact to no more than 12 sessions, the need for ongoing follow-up at the end of our contact was impressed upon him. An outline of the plan of management was provided as follows.

Pharmacotherapy Drug treatment would be required and although he had used Alprazolam in the past, Imipramine was selected in order to avoid the long tapering-off period required for the former at termination of treatment. Use of MAO inhibitors was also discussed at this point but Peter was apprehensive about the potential side effects and the need for dietary restrictions. Hence, Imipramine 25 mg nocte was prescribed as a starting dose with plans to increase that to 150–200 mg nocte over a three week period.

Cognitive Behavioural Therapy (CBT) The theoretical assumptions underlying this particular form of therapy were outlined. Peter was advised to purchase a diary in which he would daily keep a note of his symptoms. He would also be required to make a note of the thoughts associated with each episode of anxiety and panic, to rate his anxiety out of 10 on each occasion and then to reformulate his negative cognitions in a way that would diminish the associated anxiety and allow him to view the feared situation in a more adaptive way. Exposure therapy would involve a focusing on the hierarchy of fears and a progressive exposure to feared situations initially in the hypnotic state and then subsequently in vivo.

Hypnotherapy Hypnotic techniques would be combined with the CBT previously outlined. Self-hypnosis would also be taught. Peter expressed interest in learning hypnosis and we discussed issues of control and explored some of his beliefs about hypnosis.

Reading Material A number of authors have described the usefulness of reading material in treatment of agoraphobia (Marks, 1987; Marriott, 1987). Suitably chosen books reinforce "rationale therapy" and serve to improve the patient's morale and commitment to treatment. In addition to the information on hypnosis, my personal choice is David V. Sheehan's *The Anxiety Disease (1983).*

Session 3

Peter described a difficult week during which he had experienced an exacerbation of symptoms. He had taken Imipramine on four nights but had ceased the medication because he believed it was responsible for the worsening of his clinical condition. After commencing the antidepressant, Peter experienced four episodes of spontaneous panic in three days. He had taken two days off work because of fears of further panic attacks and because, he explained, he felt "washed out" and exhausted. A positive outcome of his time off work was that he had read the literature recommended at the previous session and remained committed to therapy. Peter was explicit in his resolve not to recommence Imipramine even at a lower dose and he remained hesitant about the MAO inhibitors. Alprazolam was therefore chosen as an alternative pharmacological agent and prescribed 0.25 mg three times daily. Peter remained interested in hypnosis and in this session was introduced to the hypnotic experience as a prelude to more intensive work. A hypnotic trance was induced using progressive relaxation and imagery (Hadley & Staudacher, 1989). The special place chosen by Peter prior to the induction was an isolated beach which he had visited some years before, on a warm summer's day. A deepening technique based upon the "descending steps" method described by Clarke and Jackson (1983) was also utilised, during which ego-strengthening suggestions were provided, together with post-hypnotic suggestions of relaxation and of feeling refreshed. Termination of the trance was achieved by counting up from one to 10. Peter enjoyed the hypnotic experience and admitted he entered the consulting office in an anxious state and remained so until the induction. He now reported a complete absence of anxiety and a pleasurable feeling of well-being.

Session 4

Peter had returned to work the day after the last session and had experienced two days free of anxiety. From the following day, however, he experienced persistent anxiety which he attributed to the recurrence of palpitations and a re-emergence of fears he was suffering from cardiac disease. This was interspersed by three panic attacks of moderate to severe intensity.

The Stanford Hypnotic Clinical Scale (SHCS; Morgan & Hilgard, 1978) was selected to formally assess Peter's hypnotisability, on which he rated a maximum of 5/5.

Peter's diary was then reviewed. Interestingly, while a record of palpitations,

their negative interpretation and resultant anxiety had been kept meticulously, Peter had not been able to provide a reason for these subjective experiences. On each occasion, he could only believe he was experiencing cardiac symptoms. Once again, the evidence for his belief was examined and alternative interpretations were established. I hypothesised that the development of palpitations was due to his selective attention to his bodily functioning which in turn increased his awareness of his cardiac activity. Peter remained sceptical that increased attention could induce missed heartbeats. A modified behavioural experiment (Clark, 1989) was therefore carried out with the aim of altering Peter's catastrophic interpretations of his bodily sensations. A hypnotic trance was induced in the manner used in session three. While in a trance, Peter was taught the ideomotor finger-signalling technique (Waxman, 1989) and he was instructed to concentrate on the sensation of his heart beating and a suggestion was provided that, as he did so he might notice occasionally it would miss a beat. He was able to signal to me when that occurred within a short period of time.

The trance was deepened further using special-place imagery. Suggestions of calmness and tranquillity were made and Peter was encouraged to focus on the different components of the imagined scene. Direct suggestions to abolish the symptoms were not provided in order not to challenge Peter's sense of self-control. Ego-strengthening suggestions were given instead. Waxman (1989) emphasised the importance of a combination of ego-strengthening suggestions and symptom relief in rendering the patient more self-reliant, more confident, and more able to adjust to his environment.

At the end of the session, an increase in Alprazolam to 0.5 mg tds was recommended.

Session 5

Peter appeared pleased with his progress in the past week. He had experienced palpitations before picking up his children but had recognised these as a manifestation of anticipatory anxiety and did not go on to develop panic as a consequence. Some time was spent discussing the relationship of palpitations and panic to anxiety induced by life situations. Three situations were identified which repeatedly led to the development of persistent anxiety and increased the likelihood of panic attacks. The first was coming to the hospital for his appointments. Before his appointments, Peter worried about how I would react to the evidence in the diary that he remained symptomatic. He feared I would be angry, reject him as incompetent, or give up on him.

The second situation concerned his access to his children. Before weekend access, Peter feared he might experience panic in front of them. They were unaware of their father's disorder and Peter was keen to prevent them from finding out he had a "mental problem." He was concerned to maintain an image of a strong and capable father.

Thirdly, arguments with his de facto produced fears of abandonment, that

she would lose affection for him and end their relationship. These cognitions were examined individually using verbal challenging of associated thoughts and attempts made to substitute these with more rational thoughts in the manner described by Clark (1989).

A trance was induced in the manner described previously. Suggestions were then provided to teach Peter to relax in the middle of a panic attack by using a deep-breathing technique (Clark, Salkovskis, & Chalkey, 1985). He was also taught thought-stopping and how to replace the irrational thought with a coping statement: "My heart is okay. It can pound like this forever. These feelings I have will start to pass in three minutes."

Further ego-strengthening suggestions were provided before the trance was finally terminated. In this manner, behavioural and cognitive strategies were incorporated into the hypnotic trance in order to teach coping mechanisms (Hadley & Staudacher, 1989). The session was taped and instruction was given to practise the induction twice daily. The dose of Alprazolam was increased to 1 mg tds.

Session 6

Peter stated that he felt much better on this occasion. He had listened to the tape on the train to and from work daily and had utilised his coping strategies on at least five occasions that would usually have caused anticipatory anxiety. My aim in this session was to teach Peter a self-hypnotic technique based on the Basic Hypnotic Exercise (BHE; Soskis, 1986). The target symptoms were his anticipatory anxiety experiences. The technique could also be utilised as a coping mechanism during panic attacks although Peter was instructed to reserve this for circumstances where the other techniques were unsuccessful in stopping the escalation of anxiety. Soskis (1986) described the unreliability of self-hypnosis as a coping mechanism in the management of episodic and unpredictable anxiety. In the midst of a panic attack, patients are often too distressed to do a self-hypnosis exercise effectively. Indeed, Stanley, Burrows and Judd (1990) underlined the need for "sufficient practice" to apply self-hypnosis effectively which is more potent in truncating the anticipatory anxiety about having a panic attack. A post-hypnotic suggestion was provided to allow Peter to re-experience the pleasant feelings associated with the beach scene by using a key phrase, which he chose to be "calm and controlled." Written instructions were provided and a tape of the session was also given to him for daily practice. Alprazolam was increased to 1.5 mg three times a day.

Session 7

Peter continued to report improvement. He practised the BHE twice daily. His coping techniques had been utilised while shopping on one occasion and while out with his children on the weekend. He had quarrelled with his partner without experiencing any affective sequelae and did not describe anticipatory anxiety prior to the appointment. He had what he reported in his diary as

an "interesting experience" three days previously. An interdepartmental conference was to be held that day and his level of anxiety started to rise. Fearing having a panic attack without being able to escape easily, he attempted to challenge his irrational thoughts with more realistic ideas. This was unsuccessful, as were thought stopping and relaxation with controlled breathing. As his anxiety continued to rise, he employed his "key phrase" several times. His diary reported his experience as follows: "Strange coping strategy at work here; seemed to be able to talk and communicate on one plane but part of my mind seems detached from the real situation. Like I know I'm not totally calm but I feel in control anyway. It's hard to explain . . . it's not altogether unpleasant." Peter had continued in that dissociative state until returning home and speaking to his companion when "I felt as if a veil was lifted from over my face."

I was concerned about several aspects of Peter's experience. The first that he was not entirely comfortable with the phenomenon and did not know whether to view it as pathological or not. Secondly, the dissociative state persisted long after the precipitating circumstances (the conference) had ended. Discussion centred around the nature of dissociation and a cognitive restructuring of the phenomenon as a coping mechanism which allowed splitting from the fears of the panic state (Stanley et al., 1990). A hypnotic trance was then induced based on the BHE of Soskis (1986) and termination of the dissociative state was built into the technique by providing a suggestion that if self-hypnosis was used during a panic state, the pleasant feelings induced by the "key phrase" would be terminated once he "started the journey home." The induction was taped with instructions for daily practice. Alprazolam was increased to 2 mg three times a day.

Session 8

Peter reported an excellent week. Since the last session, he had been to two functions, had been several times to retail centres crowded with shoppers, had endured work situations where he was required to demonstrate assertiveness and had been to local markets without experiencing panic attacks. He continued to practise the BHE twice daily while commuting to and from work and was increasingly able to do so without the accompanying tape. He indicated he had been thinking a great deal about his father lately, stating he believed his concerns as regards having a heart attack were related to the fact that his father had suffered an infarct at nearly the same age as Peter was now.

Discussion centred around Peter's experience of his father's infarct, which he witnessed. Peter recalled feelings of helplessness and fear that his father was going to die. In later years, he remained anxious about his father's well-being. He recalled being apprehensive when his father was late from work and on numerous occasions would await his return at the train station. The

anxiety was not dissimilar to the anticipatory anxiety he experienced now. He was to continue with Alprazolam 2 mg tds and the BHE daily.

Session 9

In the two weeks since his last session, Peter reported no episodes of panic and he had dealt with mild anxiety experiences using his coping statements, not requiring the key phrase during any of these situations.

He was keen to continue exploration of the issues raised at the previous meeting. A few years following his father's heart attack, his mother had developed cancer. This was a particularly stressful time for the family. Peter recalled that although the seriousness of his mother's illness was recognised, the family operated on a denial that the illness was terminal right until the very end of her life. Her death then came as a tremendous shock. Peter did not experience a prolonged period of grief. He remembered that at this time he became preoccupied in his social life and his apprenticeship and was able to distract himself from events at home. He recalled that the family seemed to disintegrate following his mother's death as each member moved in separate directions. They never really talked about the loss and tended to avoid each other as much as possible. Peter experienced a "great sadness" when discussing this period in his life and was visibly tearful. He described being frightened and lonely after his mother had died and feeling unsupported and vulnerable.

Session 10

No changes were reported since the last session. Shopping, going out to a restaurant and physical exertion were all carried out without associated anxiety. Self-hypnosis continued to be used daily. Peter initiated discussion on themes of trust and commitment in relationships. He observed that he had not experienced any stability in his adult relationships. In the course of therapy, he had become aware of the fact that none of his sexual relationships had endured to any extent. With the exception of his second marriage which lasted four years, his other relationships had all ended within one to two years. Typically, it was his partners who initiated separation but he recognised that this was always preceded by his increasing emotional disengagement, either through refuge in alcohol or by indulging in affairs. His current relationship was also in difficulty and he stated: "If she left me, I think I'd be relieved." I reflected on this statement with some interest. It seemed as though being with a partner was actually a cause of anxiety for him and evoked fears within. He agreed, and I noted his panic had commenced at a time when he must have felt "trapped" in a relationship from which, because of the impending birth of his first child, there was no easy escape. Peter elaborated on this and remarked that the periods of relief for him in the previous seven years had tended to occur at the end of relationships. This was puzzling for him as he observed that he felt lonely and vulnerable when unattached. It seemed to him a no-win situation.

Session 11

Again, there had been no episodes of panic despite exposure to previously phobic situations, although he had experienced some anticipatory anxiety and palpitations, without subsequent panic attacks. He expressed disappointment and concern about the persistence of his problems. I felt as though he were clinging to me and demanding of me to do better. As we only had another session to go before termination, I wondered what his feelings were about the end of our therapy. Peter responded angrily that termination was occurring just as he felt he was making an improvement. He feared another relapse in the near future. I observed that some time before (session five), he had noted a worsening of anxiety prior to his appointments with me. He had described fears that I would reject him or lose faith in his capacity to get better if he failed to show improvement from session to session. I wondered whether he felt I was rejecting him now. He replied that although he recognised termination was unavoidable because of my ceasing employment at the hospital, he did feel as though he were being abandoned. The issue of rejection was elaborated upon. He recalled the associations he had made with situations known to lead to anticipatory anxiety and an increased risk of panic, namely access visits from his children and conflict with his partner. The fear of loss through rejection by loved ones was a common theme. I interpreted this as a repetition of his relationship with his parents. He appeared to have little trust in the permanence of attachments and seemed to anticipate time and again their ending. Peter elaborated further. He remarked that he felt stressed whenever his relationships hit "a rocky patch" and this tended to bring on an exacerbation of his panic.

Sessions 12 and 13

No further symptomatology was reported. Peter had continued to use the BHE on a daily basis to good effect. The themes raised in the previous session were explored further.

Clearly, Peter had acquired a significant insight in the last session and revealed that he had considered the issues further during the week. He developed further the link between the development of panic and how he perceived the stability and durability of his relationships, with his partner, his children, and even his therapist. No phobic avoidance was noted. He had recently been appointed to provide holiday cover in a more senior position, an event Peter considered indicated his greater effectiveness at work. The work of the previous sessions was reviewed including the behavioural exercises, cognitive techniques, and self-hypnosis. He expressed satisfaction about the progress he had made and was especially proud of his abilities with hypnosis. He was keen to be referred on to a psychiatrist for continued management of his condition. I was in favour of this, especially as I anticipated he would be in a position to cease Alprazolam in the months ahead and would require monitoring of the gradual withdrawal of that medication for evidence of side effects and/or relapse of the syndrome.

SUMMARY AND DISCUSSION

This case history reflects the complexity of treatment of panic disorder with agoraphobia, commented on in the clinical literature (Kaplan & Sadock, 1991). In this case, therapy involved an initial phase of information-gathering, management-planning and patient education. This was followed by a combination of CBT and hypnotic techniques aimed at monitoring cognitions and behaviour, identifying precipitant events, identifying and modifying irrational predisposing cognitions and teaching methods of self-control of previously unpredictable affects and sensations. Hypnotic techniques, including self-hypnosis, were incorporated to teach methods for coping with acute panic, to reduce anticipatory anxiety and for the purposes of improving self esteem.

With increasing control of anxiety, the patient was able to become aware of the meaning of his symptoms in terms of his life story. He established that exacerbations of his symptoms coincided with relationship instabilities or actual conflicts with attachment figures arousing fears of potential or actual rejection or loss. These experiences were linked to earlier losses during adolescence, actual or threatened, of his mother and father, probably occurring in the context of insecure attachments to his parents. The exploration of these issues provided the patient with a deeper understanding of his symptoms.

The issue of which form of treatment is best suited to the management of panic disorder with agoraphobia is one that has attracted considerable interest. Clinicians suggest that psychodynamic therapy used alone in the treatment of agoraphobia is not as effective as exposure therapy, but this conclusion has not been empirically evaluated (Gelder, 1990; Gelder, Marks, Wolff & Clark, 1967). Problems in defining what constitutes psychodynamic therapy render the measurement of its efficacy difficult and yet its potency as an adjunctive therapy cannot be dismissed (Kaplan & Sadock, 1991).

Much work has been done recently on the pharmacological treatments of panic disorder and Alprazolam is widely used, especially in the U.S. (Klerman, 1992). There remains much to learn about the role of medication in the management of this disorder. The use of benzodiazepines is not favoured amongst behaviourists (Marks, 1987; Marks, de Albuquerque, Cottraux, et al., 1989), who have highlighted the risks of tolerance, withdrawal syndromes and dependence, none of which has been found to be significant in studies to date (Pollock, 1990; Nagy, Krystal, Woods, & Charney, 1989). A recent study by Klosko, Barlow, Tassarini, and Cerny (1988) demonstrated advantages for both alprazolam and CBT. The former produced a more rapid onset of action while the latter was more likely to render the patient panic-free after 15 weeks of treatment, although this difference was not significant. The issue of whether or not the two therapies act synergistically has not been resolved. CB therapists might oppose the use of medication on the basis that therapeutic gains could theoretically be negated if the patient attributes newfound coping skills to medication. There are, however, no controlled empirical studies which support this assertion (Hecker & Thorpe, 1992). Similar reservations to the

combination of CBT and hypnosis also exist but again, no trials have been carried out which demonstrate that hypnosis reduces the gains made by CBT. Indeed, there is a paucity of studies which evaluate the role of hypnosis in the management of agoraphobia and panic disorder (Clarke & Jackson, 1983; Crasilneck & Hall, 1985; Burrows & Dennerstein, 1980). Few if any evaluative studies have been carried out and published articles are limited to anecdotal case reports (Milne, 1988; Kornfeld, 1987). Such work as has been done in this area suggests that patients treated with hypnosis may respond more rapidly and show greater improvement in measures of behavioural, cognitive, affective, and interpersonal changes.

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TREATMENT OF POST-TRAUMATIC STRESS DISORDER WITH HYPNOSIS

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In this case the author reports the use of hypnosis with a client displaying the symptoms of post-traumatic stress disorder following a motor vehicle accident. The person was a 24-year-old single male motor mechanic who was referred for treatment by his local general practitioner. This case illustrates the efficacy of hypnosis in the treatment of this disorder.

"Roger" was on the first leg of a year-long holiday trip around Australia. He was in Western Australia driving along a highway when a car approached him from behind at high speed. It hit him, causing his car to overturn several times before coming to rest. Roger suffered some jarring to his neck and was placed under observation at a local hospital before being released. His car was damaged beyond repair and the other driver admitted liability for the accident. Roger returned home to New South Wales, abandoning his trip.

EFFECTS OF INJURY

Roger reported experiencing a change in his personality following the accident. He changed from being a cheery, motivated and happy person before the accident, to being constantly depressed, tense, anxious, agitated and teary for no reason. He reported that he tried hard to get himself out of his moods by actively changing his thought patterns, but had very little success.

He had frequent flashbacks of the accident, hearing the screech of tyres and brakes of the other vehicle as it hit him. He also repeatedly re-experienced other parts of the accident, seeing himself gripping the steering wheel as it was overturning, seeing his belongings spilt all over the road, not knowing where his dog was (it was sitting beside him in the car at the time of the collision).

He lost confidence in his driving, becoming quite nervous and defensive, feeling easily threatened on the road. He felt incompetent as a driver and

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frequently feared being involved in another motor vehicle accident. He reported losing his motivation, enthusiasm and zest for life and he was easily upset when reminded of, or when having to talk about, the accident. He felt a constant sadness and feelings of anxiety and guilt that he had subjected his dog, with whom he had a very special and close bond, to such a trauma (the dog was thrown out of the car when it overturned and it bolted from the scene of the accident, disappearing for several days before it was found by locals).

Roger also related other mixed feelings about the accident. At times he would hold himself responsible for the accident, believing that perhaps he could have avoided it by taking a different route that day, that he could have started travelling earlier hence missing the other driver, or that he should have stopped for petrol and again missed the other car. At other times he would feel selfish for being so lucky as to escape with minimal injuries.

He also experienced substantial anger and bitterness towards the other driver for being so reckless, negligent and irresponsible as to put him in potential danger of serious injury or death. He was very angry that he had spent two years planning his holiday and building his four-wheel-drive vehicle for the journey, only to be "short cashed" one month into his trip. He felt that the insurance payout for his vehicle would never compensate for the extra time, effort and money he had spent on his vehicle, or for his lost holiday.

During his initial interview, Roger appeared to be quite anxious, was often upset and in tears when describing the incident and his emotional state.

DIAGNOSIS

The symptoms Roger had described warranted a diagnosis of Post-Traumatic Stress Disorder, as described in DSM III-R (American Psychiatric Association, 1987). He had experienced an event that was "outside the range of usual human experience that would be markedly distressing to almost anyone." The traumatic event was

> persistently re-experienced through recurrent and intrusive distressing recollection and flashbacks, numbing of general responsiveness by deliberate efforts to avoid thoughts or feelings associated with the trauma, marked diminished interest in significant activities, restricted range of affect, persistent symptoms of increased arousal in his difficulties in concentrating, hypervigilance, irritability and physiological reactivity to driving and potential dangerous situations. (DSM III-R, 1987)

His symptoms had persisted over five months. Roger also exhibited "survivor guilt," as described in the DSM III-R criteria.

RATIONALE FOR USE OF HYPNOSIS

Research and clinical work in this area has shown that people with the diagnosis of post-traumatic stress disorder are significantly more hypnotisable than the

normal population (Spiegel, Hunt, & Dondershine, 1988; Stutman & Bliss, 1985). The implication from these and other studies is that hypnosis may be a particularly helpful type of treatment for post-traumatic stress disorder.

I postulated that reliving and re-experiencing of the trauma with suggestions of reduced anxiety could help to minimise Roger's fear and avoidance approach to the trauma and would encourage more adaptive behaviours. Many authors in the literature comment on this approach to therapy with hypnosis (Peterson, Prout, & Schwarz, 1991). Roger himself suggested the use of hypnosis as a form of treatment, although he had no prior experience with hypnosis.

Hypnosis was to be used as: (a) a supportive technique (for controlling anxiety); (b) an uncovering technique (for suppressed memories and thoughts); (c) an abreactive technique (for release of suppressed emotions); and (d) an integrative technique (to integrate resolved trauma as part of his repertoire of life experiences).

A treatment contract of four to six sessions with hypnosis was established. Further treatment was to be dependent on our mutual evaluation and review of progress.

First Treatment Session

The aims of treatment were: (a) to explain what hypnosis is and to demystify myths; (b) to shape expectations; (c) to induce hypnotic trance; (d) to introduce the concept of anchoring; (e) to enable Roger to relive and re-experience the accident under trance; and (f) to resolve any unresolved issues associated with the trauma while in trance.

Roger attended the session in a more positive frame of mind than during his initial interview. He told me that he felt much better after the disclosure of his reactions to the trauma in that first interview.

Roger told me that he felt informed about hypnosis in these terms:

1. Hypnosis can be described as a state between fully awake and fully asleep, hence it is a "normal" state of focused attention rather like a daydream, where one is paying attention to what the hypnotist is saying, rather than to their thoughts or things around them. It is not an abnormal state, as some people tend to believe.
2. When daydreaming, most people drift in and out of this altered state of consciousness akin to light hypnotic trances without fully realising it.
3. Contrary to popular beliefs, in trance a person is aware of what he/she does, and cannot be made to do things beyond their voluntary control.
4. That the therapist is not hypnotising the person but merely teaching him/her methods by which he/she goes into trance. The client's locus of control is his/hers, not the therapist's.
5. In trance, the conscious or critical mind is being occupied by a certain task, or is relaxed, so that the subconscious mind is accessed more directly.
6. Because the client is in control of the situation, he/she can de-induce himself/herself whenever the need arises.

7. Use of imagination is quite important in hypnosis. If the client has difficulty seeing or feeling certain things, he/she is encouraged to imagine them. I find this a useful instruction. Often clients who may have performance anxiety, or who fear hallucination, can be helped to overcome the resistance by imagining. Once the anxiety is overcome, ease of going into trance and depth of trance can be facilitated.
8. The client is encouraged to go as deep as he/she wants without falling asleep. The difference between physical sleep and being in trance is explained.

At this point, I asked Roger if he had any questions about hypnosis. He was quite happy with the explanation that had been given and was then asked if he had experienced any of the following: (a) being mesmerised by an open fire; (b) watching a program on TV but not hearing or seeing the content; and (c) driving a long distance without recalling certain places that he had passed.

Roger had experienced all three examples of altered state of consciousness. Furthermore, he described himself as being able to "lose" himself quite easily in things, becoming quite focused in such situations as listening to repetitive sounds like the humming of an engine, staring at leaves, or looking at trees or "just about anything." He described himself as going into suspended space in such instances. He was congratulated for his natural ability to go into trance (increasing his expectancy) and was told that we aimed to achieve the same state in hypnosis but at a deeper level.

Roger was asked to describe scenes that were relaxing and absorbing for him: (a) sitting and watching an open fire; (b) watching thunderstorms; and (c) just about anything.

The induction was based on a progressive muscular relaxation technique. I have found from my clinical experience that clients often benefit from knowing how to relax physically as part of the procedure. It is also a focus of attention for the induction process. The deepening technique was based on a scene Roger described as relaxing and absorbing. The five senses were utilised to facilitate the deepening process. Roger was invited to make himself as comfortable as he could in the armchair. He was to uncross his legs and arms and to close his eyes. He was then told to take three deep breaths and return his breathing back to normal. He was then instructed to say to himself the word *relax* each time he exhaled while I nominated various parts of his body to focus his attention on and relax. It was suggested that he saw himself sitting in a big, comfortable armchair right by the open fire, just sitting there relaxing... watching the flames dart and flicker, and absorbing the warmth... as he sat there enjoying himself he might feel more and more drawn by the open fire, the darting, the rhythmical flickering of the fire being so mesmerising and absorbing, so relaxing and calming. The crackling of the logs, the sizzling sound as they burned, so cosy, warm and special. As he sat there he might find his attention going deeper and deeper within himself. He could feel the warmth of the fire on his face, his legs, the whole of his body

as he went deeper and deeper. He could smell the special smell of the burning logs and of the smoke. He might even sink so deep in this special space of his that he might find it difficult to tell where the armchair ended and where he began . . . way, way down, feeling secure, in control and safe, knowing that any time he wished to come out of the trance he could do so without necessarily reversing the whole procedure. Roger was encouraged to be at a space where he felt a sense of suspension, a sense of timelessness, of eternity. A special space, a paradise with a sense of infinity where he felt at one and in unity with all that was around him.

He was then instructed to touch the chain around his neck (which he wore all the time) with his right hand and it was suggested that he associate the positive, safe, and special feeling he was experiencing in hypnosis with this particular action; that any time in trance or out of trance he needed to feel safe he could re-evoke these feelings by touching his chain with his right hand.

At the depth of trance comfortable to him, he was instructed to take himself back to the scene of the accident, and I asked him to relate to me his first awareness or thought. He was told that he would find it quite easy to speak to me while in trance, that his mouth and the immediate area surrounding his mouth would be out of trance while the rest of him remained in trance.

His first awareness: He saw his car and he proceeded to survey the damage done to his car. Then he saw the flattened roof and the broken windows. Then he became teary and related a sense of sadness. When encouraged to stay with the sadness he asked "Where's Nugget (his dog) . . . he's gone (more tears) . . . not fair, not fair . . . it's not his fault (crying) . . ." He was told that the accident was not his fault, that it was not fair that this had happened to him either (empathising, encouraging him to go deeper into the experience, and to own his experience). He was encouraged to further explore his feelings and he expressed substantial hurt in losing his dog, a special companion to him. It was then observed that he was beginning to clench his right hand. He was asked to share with me what he was experiencing. He related that he was holding onto the steering wheel while he was overturning. He was asked how he felt – he felt a sense of helplessness, being out of control, trying to concentrate on bracing himself and surviving, dealing with the situation as best he could. The car then came to a stop. He looked around and saw that Nugget had disappeared. There were more tears.

Roger was encouraged to anchor himself whenever he felt the need to. After a while, his eyes began flickering and he was asked to share with me what he was processing. He related looking in his rear-vision mirror and seeing a brand new white Ford sedan coming behind him. It was coming up too fast. When asked how he felt, he expressed a sense of disbelief, fear, anger, disorientation, and confusion. He was quite scared. At this point it was judged appropriate to end the session. He was advised to anchor himself and to return to his special space where he felt peace, serenity, and safety. He was to stay there for a while before de-induction.

At the end of the session, Roger was instructed to count from 10 to 1 and, as he did, to actively bring himself back from his deep trance at each count, so that by the time he came out of trance, he would feel refreshed, alert, and wide awake. He was then to open his eyes, take a deep breath and exhale, open and close his fists a few times.

Roger related re-experiencing the traumata while in trance. He said he did not realise the range of emotions that he went through during the accident. Specifically, while in trance he got in touch with his fear, helplessness, sadness, and confusion.

Second Treatment Session

As set out before, the aims of treatment were: (a) to continue exploration of the effects of the accident through hypnosis; (b) to encourage abreaction while Roger was in trance; and (c) to encourage resolution by confrontation instead of avoidance of trauma.

Roger reported feeling positive and good after the last session. Recollections of the accident post session did not evoke anxiety, fear, anger, sadness or other associated emotions that were typical of the past. He had also managed to put himself in trance several times to experience his special space.

For deepening, Roger chose to watch, in his mind, the sun set in the desert. The induction technique I used had the aim of gradually taking Roger's focus of attention from the external to the internal; first focusing on sounds outside the building, then on sounds inside the building, then sound within himself. The deepening process was developed from one of Roger's scenes which he found absorbing and relaxing. Roger closed his eyes, then took three deep breaths, returning his breathing back to normal He then focused his attention on sounds outside the building, selecting one sound, staying with it for a while, then searching for another, and yet another, to continue moving from one sound to the next for a while. Then it was suggested he could do the same with sounds inside the building. After a while he was to focus his attention internally within himself, being aware of any internal sounds.

Deep within himself Roger was to find a corridor through which he could walk. At the end, he would find a door which he was to open. Stepping through the door he was to find himself at the desert with the sun setting. It was to be quite beautiful . . . he was there, all by himself, having the whole world to himself, being able to luxuriate in the beauty and magic of the moment, the wilderness, the space, the timelessness, the desert bushes around him, the warmth of the desert, the smell of the earth. He was to watch the brilliant pinks, oranges and purples of the sunset radiating throughout the sky and the clouds. Gradually and majestically the sun disappeared, and darkness took over, bringing with it a slight chill. He could then see stars covering the whole of the universe, shining and sparkling, some brilliantly, some dim and flickering. He was to notice some stars as moving, some as stationary, a satellite here and there, a falling star, and the bright moon.

It was suggested that this was a magical and special place where the stars seemed to stretch far into the universe, seemingly forever. He was to allow himself to "lose" himself in the millennium of stars, becoming at one with them, experiencing the timeless quality, the eternity with the past, present, and future.

Roger was reminded to anchor himself if necessary throughout the re-experiencing of the accident. The process of exploration used in the first session was again used. Roger saw his car wrecked on the side of the road. He related no particular reaction to the scene. In fact, he was feeling "quite okay." Then he announced that "I should have avoided the accident." I asked him to elaborate, and encouraged him to reveal how he saw himself as being responsible – "I should have gone back and taken the turn-off that I'd missed, instead of continuing on," "should have taken a different route," "should have stopped for petrol and missed the other car," "should have had breakfast earlier and left earlier." He was then asked how he was to know that he would have an accident and how he could guarantee that he might not have had a more traumatic experience if he had taken a different route. He replied that he could not have known. With that, it was suggested that he "let himself off the hook" and not hold himself responsible for the accident. He was then angry with the other driver who was "asking for trouble" because of the speed at which she was travelling. He appeared to be consumed by anger. I asked him how he would like to see her pay for all the damages she had caused him. He replied that he wanted her to suffer the consequences of her action by losing her licence and having to compensate for his losses and sufferings. He was encouraged to visualise the other driver as experiencing the consequences of her action until he was fully satisfied that she had suffered enough. Then it was suggested that he let the anger and hurt go. He was then advised to look into his own future to see what lay ahead for him. He was aware that he wanted to do something challenging, like being a sales representative. He would like to travel again, but not immediately (he had to consider his present girlfriend), would like to purchase a block of land for security before embarking again on a long trip.

To bring Roger out of trance, he was to find the door through which he went earlier. He was to go through the door, back up the corridor, bringing himself out of trance in doing so, so that by the time he reached the top end of the corridor he was to come right out of trance feeling refreshed, alert, and wide awake.

Roger was quite surprised at the lack of reaction he had experienced when seeing the scene of the accident. He related feeling quite calm about it, the whole scene seemed to be less traumatic for him. The suggestions that I had made to him (e.g., not taking responsibility for the accident) he had in fact thought about previously but they had not "sunk in." He now felt that they had "sunk in" and that he had resolved various issues and released them. He also related he had a renewed sense of faith that he could pick up his life and move forward again.

Third Treatment Session

As before, the aims were: (a) to explore any residual reactions from the accident, if all is resolved, to allow the whole episode to fade into the background of his awareness, becoming part of his past, part of his history; (b) to reinforce his motivation to look forward to the future with renewed energy, to be positive about himself and positive about life; and (c) to have faith that one day he would resume his trip if he wanted to, that all was not wasted and lost, that positives would emerge out of this experience.

Roger reported that his calmness and positive outlook had continued after the previous session. The night before this session he had received news that his friend, whom he was to share a flat with, had committed suicide. Even though he was shocked and upset by the news, the event did not affect his resolution of the accident. He related feeling more positive and definite about his goals in life and had decided he would go ahead with purchasing a block of land and to do small trips for the time being. He had, in fact, started to look around for land.

Music has been found to be an effective medium for both induction and deepening procedures (Walker, 1992) and was used in this session as an induction technique. As Roger had shown that he was a good hypnotic subject, direct instructions were given in the deepening phase of the hypnotic procedure. He was instructed to close his eyes, to take three deep breaths and to return his breathing back to normal. Then, he was to allow his attention to focus on the music to be played, letting himself become more and more focused as he listened, more and more relaxed, and allowing the music to transport him into the deeper realms of his trance. The music used was the first track of Christopher Buckman's *Kakadu.*

Roger was given direct suggestions to go deeper into trance. These included: allowing himself to sink, let go, feeling calm, safe and in control; sinking so deep that he could feel the armchair supporting all his weight; returning to his special space where he could feel a sense of peace, serenity, eternity, timelessness, allowing himself to be suspended there.

Roger was to take himself back to the site of his accident and to relate to me what he could see. He saw himself in the ambulance being taken to the hospital. He was deeply worried about his dog Nugget. Then he saw himself at the hospital under observation, still very concerned and saddened by Nugget's disappearance.

He then saw himself returning to the scene of the accident after discharge, searching for Nugget. I explored with him why this appeared to be such an important issue to him, that he kept returning to. He indicated that he felt guilty about not taking more care of Nugget since returning to New South Wales (Nugget was eventually found and returned to Roger). He had left him with his parents and had not visited him regularly of late. It was suggested that he could resolve the situation by more frequent visits. He agreed. He wanted to take the issue further by asking his landlord about the possibility of having Nugget living at his rented premise.

I then suggested that he go back to the site of the accident again. He reported no further unresolved issues. It was then suggested that he allow the whole episode to fade into the background of his awareness, to become part of his past, being an incident of his past, part of his history, that he had benefited from the accident in that he had gained inner strength both physically and psychologically from experiencing, re-experiencing and surviving the accident. Having survived the accident might have served to give him a different value on life, putting into perspective for him that his new inner strength from surviving the trauma would help him to attain future goals and aspirations, to be more determined to move on in life and to let go of the past. He was to maintain this positive outlook in life that he had regained in treatment, have faith in his solicitors, and trust them to work for him without taking on worries himself. One day he might even resume his trip if he wanted to.

To terminate this session, Roger was instructed to visualise a ladder in front of him with 10 rungs. He was to climb the ladder one rung at a time. With each rung, he was to progressively bring himself out of trance back to full awareness. When he reached the top rung he was to be fully refreshed, alert, and wide awake; he was to open his eyes, take a deep breath, and to open and close his fists a few times.

Roger related that he could feel himself pushing the accident into the background of his awareness and he actually felt himself taking strong, definite strides forward into the future. He reported feeling positive and strong about his recovery and, as a result, treatment was terminated.

At follow-up three months after treatment he had maintained his recovery. He had not re-experienced any flashbacks, loss of confidence in his driving, mood changes, irritability, teariness, nervousness or anxiety associated with driving. Generally, he had also maintained his positive outlook on life, his motivation and interests.

DISCUSSION

The four most common objectives in the treatment of post-traumatic stress disorder, namely, supporting adaptive coping skills (ego), normalising the abnormal, decreasing avoidance (through repeated exposure), and altering attribution of meaning of the trauma (Peterson et al., 1991) are seen to be achieved in these treatment sessions.

The success of this case is probably a result of several factors:

1. The client's expectations – that Roger was coming to see a professional psychologist for help may have raised his expectations. Roger had also initiated the suggestion of using hypnosis as a treatment method, so that his level of expectation was appropriate.
2. Rapport was established, providing an understanding and accepting environment for Roger to disclose his situation and, in normalising his

situation, trust was probably developed. Rapport is also a mutual process. As a therapist, I found Roger easy and comfortable to work with, hence the therapeutic relationship was enhanced.

3. The client's high hypnotisability – as observed in treatment, Roger was able to relive and reexperience the trauma as if it was happening there and then, thus giving a clinical indication of his ability to focus his attention, his level of suggestibility, and his ability to dissociate.

Post-traumatic stress disorder can be treated with a variety of other forms of therapy, including systematic desensitisation program and/or dynamic psychotherapy encouraging abreaction, resolution and functional integration of traumatic experiences. However, in terms of efficiency, treatment with hypnosis enables the therapist and client to deal more directly with the unconscious, and is probably the most effective.

Roger was quite a good, compliant subject. He needed little help with guidance and resolution. In a more resistant and non-compliant subject, more time may have had to be spent establishing rapport and building up trust. In clients whose sense of self is more fragile and coping behaviours more maladaptive, ego-strengthening and more direct intervention may be necessary during hypnosis. Hence, it is essential in any treatment with hypnosis that therapy be tailored to the individual and the technique matches the subject's mental set.

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