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MAIN PAPER

STUTTERING MODIFICATION USING HYPNOSIS: AN EXPERIMENTAL SINGLE-CASE STUDY

Guy J. Moss & David A. Oakley

Hypnosis Unit, University College London

ABSTRACT

This experimental single-case study examines hypnosis as an anxiety management and ego-strengthening technique for stuttering modification. The fluency of a 29-year-old male with a severe overt stutter was measured in controlled conditions over a baseline period, 12 hypnosis sessions and five follow-up sessions, using standardized reading material. In hypnosis the subject was taught anxiety management and self-hypnosis techniques alongside covert rehearsal of coping with stressful situations. Fluency improved immediately during hypnosis and a steady increase in fluency was seen over sessions on the standardized materials when tested both before and after hypnosis. On the basis of post-hypnotic suggestion and directed practice, these marked improvements in speech production seen in the laboratory were generalized to everyday situations. The subject also reported a considerable improvement in his general physical and mental well-being. The significance of these results for the use of hypnosis as an adjunct to speech therapy are discussed.

INTRODUCTION

The use of hypnosis in the treatment of stuttering is not new. Instances appear in the literature as far back as the late nineteenth century (for a review see Dunnet & Williams, 1988). Hypnotic induction and deepening techniques were generally used to establish deep relaxation, with self-hypnosis being taught early in the treatment regime to enable the stutterer to benefit from relaxation in a quick and effective way in the absence of the therapist. Perhaps one of the most important aspects of the treatment of stuttering using hypnosis is the demonstration of symptom relief; it is commonly found that the first time that patients are hypnotized, even prior to the application of any therapeutic treatment, their fluency improves significantly, at least for the duration of the trance experience. The result of such a demonstration serves to increase the stutterer's belief in the treatment, to strengthen his or her motivation to continue with it, and to connote that the faulty speech pattern can be modified.

In addition to relaxation, ego-strengthening suggestions may be given to instil feelings of calmness and confidence. These positive feelings may be linked in hypnosis to a word, an object or a gesture, which may later be used by the patient to recreate the feelings when they are needed in everyday situations. Post-hypnotic suggestions may be given to promote responses, feelings, and behaviours later in the

non-hypnotized state. They may be related to feelings of well-being or confidence in certain situations or may consist of instructions to carry out traditional speech therapy techniques (e.g., smooth, calm, prolonged speech) at appropriate times.

Hypnosis can be used with stutterers to assist in stress management and the building of self-esteem where this is the sole means of therapy, or alongside conventional speech therapy exercises. A study by Lockhart and Robertson (1977) used both approaches. They claimed improvement to a point of fluency with a group of seven stutterers with mild symptoms (less than 6% of words stuttered) using ego-strengthening and anxiety-reduction techniques in hypnosis with self-hypnosis taught early in the treatment regime. A second group of 23 stutterers with more severe symptoms had speech therapy exercises (block modification techniques) in addition to the hypnotic procedures. At the time of reporting, 10 of the severe group had achieved fluency with fluency stabilizing within 30–40 weeks of the commencement of treatment. On the basis of their study, Lockhart and Robertson recommended combined therapy in which clinical hypnosis supplements speech therapy techniques for severe stutterers.

Recognition of the potential usefulness of hypnosis in the context of disorders of communication in the early 1980s led to the foundation of the British Society for the Practice of Hypnosis in Speech and Language Therapy, which is recognized by the Royal College of Speech and Language Therapists. A survey of speech therapists using hypnosis in the UK by Macfarlane and Duckworth (1990) suggested that the major use of hypnosis in fluency disorders was as a means of achieving rapid, deep relaxation, reducing physical tension and anxiety and encouraging self-esteem in the patient.

There is a general feeling then that hypnosis in conjunction with anxiety-reduction and ego-strengthening techniques may be helpful for mild stutterers and coupled with speech therapy techniques for the more severe cases. This view is based primarily on clinical studies and anecdotal reports. There is very little experimental evidence upon which to base a judgement. The present study uses a single-case study design to investigate the effectiveness of clinical hypnosis in the absence of specialized speech therapy techniques in the modification of fluency in an individual with a severe overt stutter. The hypnosis training incorporates anxiety management and ego-strengthening procedures and the hypnosis sessions and self-hypnosis practice are aimed at reducing speech anxiety and boosting self-confidence, thereby increasing fluency and maintaining it for a long-term period.

SUBJECT

The subject (S) was a 29-year-old, post-doctoral research scientist. S scored 23 on the Creative Imagination Scale (CIS) which suggests a slightly above average hypnotic susceptibility (Wilson & Barber, 1978). S had a severe overt stutter characterised by part-word and word repetitions, long prolongations, speech anxiety and low self-confidence. S avoided certain words, people and situations that worsened his stutter. S's most feared situations, in which his stutter was particularly severe were: public speaking, talking on the phone, and reading texts aloud. S was not aware of the age of onset of stuttering. He believed that the onset was gradual and was not triggered by any disturbing or distressing life events with high emotional consequences. S first went to a speech therapist at the age of 6 years. The therapist concluded after a few meetings that the reason S stuttered was because he was lazy. S's parents appeared to share that opinion and no therapy took place.

At the age of 17 S went for three sessions to a hypnotherapist who attempted to treat both his stutter and insomnia using progressive relaxation techniques. S recalls that the hypnotherapist cured his insomnia. However, his fluency only improved for a

short period. Three weeks after the final session S suffered a relapse which brought the stutter back to its previous level.

At the age of 22 S visited another hypnotherapist. After one session, which significantly worsened his stutter, S declined to return for further treatment. S believed that his stutter became more intense because the hypnotherapist misinterpreted the reason for his stuttering.

At the age of 26 S once more visited a speech therapist for several months at regular weekly intervals. The speech therapist concentrated on breathing and slowed, prolonged speech techniques. S's fluency did not improve as a result of these sessions.

PROCEDURE

The experiment was conducted in a Sound Attenuation Chamber to facilitate audio-recording and to standardise test conditions. In the first (pre-baseline) session S read from a prepared text (Text C) consisting of 40 ten-word sentences. This text was then divided into two 20-sentence texts (Texts A and B) matched for their reading difficulty for S. The next three sessions were baseline sessions on each of which S read Text A once. There followed 12 hypnosis sessions (described in more detail below) on each of which S read the text three times: once just before, once during and once shortly after hypnosis. In the first eight hypnosis sessions Text A was read and for the final four, Text B. During the baseline and hypnosis phases sessions took place regularly twice per week. At three weeks, six weeks, three months, six months and one year after the final hypnosis session there were single follow-up sessions in each of which S read the original Text C before, during and after hypnosis. Recordings of all readings were analysed and the number of stuttering incidents (repetitions or prolongations) noted. S's feelings and beliefs about his stutter and its characteristics were monitored by questionnaires at regular intervals. S's self-reports on fluency changes as well as his mental and physical well-being were recorded on each session.

Hypnosis intervention

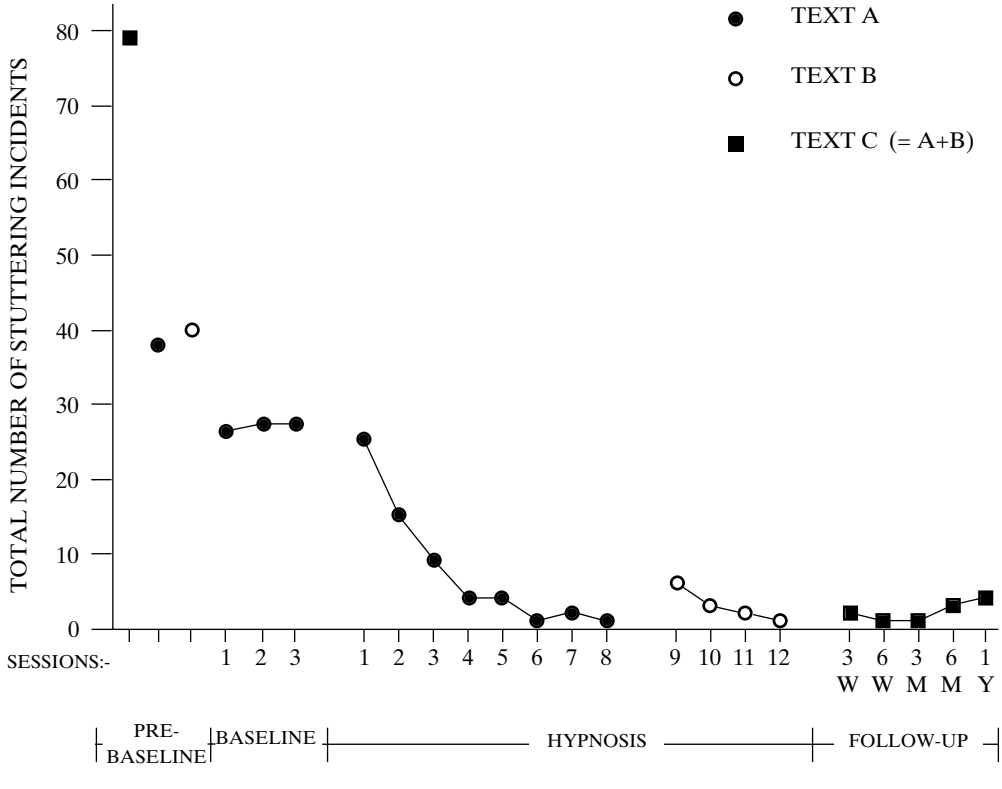
On the first hypnosis session, prior to hypnosis, S was asked to describe a 'special place' in which he would feel at his most calm and relaxed. S described lying on his bed, listening to music, and watching a yellow lamp. S was then seated comfortably and closed his eyes. A hypnotic induction involving a standardized muscle relaxation and regular breathing sequence was then carried out followed by a scripted visualization of the 'special place'. Ego-strengthening suggestions were also given and the positive, relaxed and confident feelings experienced in the 'special place' were anchored by suggestion to a short phrase ('my room') and to a gesture (clenching of the right hand to form a fist). A post-hypnotic suggestion was given that the phrase and the gesture could diminish anxiety and bring back the calm, confident feelings in everyday situations. S was then taught to repeat the same procedure for himself in self-hypnosis and was returned to the non-hypnotized state. He was instructed to practise self-hypnosis at least once per day. He was asked to imagine himself in self-hypnosis facing anxiety-provoking situations and succeeding in coping with them fluently using the hypnotic techniques he had been taught. He compiled a list of difficult situations, ones in which he was likely to stutter, and was instructed to start with the least difficult one for his self-practice and to gradually work his way through the list as he gained confidence. The same standardized hypnosis intervention took place in all 12 hypnosis sessions and the four follow-up sessions, each of which lasted approximately

one and a half hours including the three readings of the appropriate text. Subjective reports by S indicated that in all sessions a deep trance state was achieved. At the end of the twelfth hypnosis session S was given an audio-cassette containing the hypnosis script. He was instructed to continue with his self-hypnosis practice and to combine it with listening to the cassette. The standardized texts were read only in hetero-hypnosis, they did not form part of the self-hypnosis routine.

RESULTS AND CONCLUSIONS

The main results are presented in Figure 1, which displays the total number of stuttering incidents per text reading with S not hypnotized. Text C revealed an initial level of stuttering of 20% (80 incidents from 400 words). Texts A and B, derived from the initial reading of Text C, had 39 and 41 incidents respectively. The level of stuttering incidents on Text A remained stable across the three baseline sessions and the pre-hypnosis reading on hypnosis session 1 (which may be considered as a fourth baseline reading). Thereafter there was a steady decline in the number of incidents to session 8. The fact that Text B introduced on hypnosis session 9 immediately showed considerable improvement compared with its pre-baseline level (taken 42 days previously) indicates that the improvement on Text A was not simply a matter of familiarity with a particular text and that the gain in fluency had generalized. There was a further

Figure 1. Number of stuttering incidents (repetitions and prolongations) produced during readings of Texts A, B, or C when the subject was not hypnotized.



The scores for the hypnosis sessions and the follow-up sessions (at 3 weeks, 6 weeks, 3 months, 6 months and one year) are for readings conducted prior to the induction of hypnosis.

decline in stuttering incidents on Text B from session 9 to session 12. The five follow-up sessions were conducted using the original Text C and it is clear that the gains in fluency have been maintained for at least 12 months (on the fifth follow-up session the level of stuttering on Text C was less than 2% compared with 20% at pre-baseline).

For clarity, the measurements taken during and after hypnosis are not shown on Figure 1. However, it is worth commenting that on the first hypnosis session where the number of stuttering incidents before hypnosis was 26, the number recorded during hypnosis was 6, and after hypnosis it was 7 — all with Text A. As the during-hypnosis reading occurred before any self-practice had been initiated it seems reasonable to conclude that this increase in fluency represents the frequently reported effect of hypnosis alone and that there is a carry-over effect to the immediate post-hypnotic period. This pattern was repeated on all subsequent hypnosis sessions. The symptomatic improvement on the first hypnotic session provided S with a clear idea of the sort of fluency that was possible for him; in fact, he went on to achieve higher levels of fluency even outside hypnosis.

S reported that he found both the gesture and the 'special place' phrase effective in diminishing anxiety and in creating a feeling of calmness and relaxation. He summarized the hypnosis intervention as 'a resounding success' and commented further: 'I feel a lot more confident about speaking now. It has been instilled in me now that nothing I [have to] read or say can be a problem. I know that I can say it — so there is no problem. I found that the fear was soon gone . . . using the techniques it had just become easier and easier. Now I don't mind reading things out — like reading people their star signs. I just know that there will be no problem and I have no problems. I am convinced of my improvement. It is working. I see the evidence of that constantly. I find that I can simply relax, use the techniques I have been shown and speak without stuttering. I am impressed with the rate of improvement. There were times when I was shocked by my own fluency — and that's nice. I'm almost home. I feel so much more confident about the future. I know inside that I've got what it takes — everything should be OK. I can do whatever I want to do!'

He also spoke about the situations in which he used the technique, such as giving a seminar in front of a research group: 'It has always filled me with dread but I wasn't at all concerned this time. For previous seminars I prepared for hours. This time I just wrote a few key words on a piece of paper and just chatted for hours. Beforehand I used so many overheads — this time I only used one. I used the fist and 'special place' just prior to giving the talk and it was so easy. It just went so well — didn't stutter much at all. I don't think I did. That was excellent. It went really well!'

The positive changes in S's feelings about his stutter revealed in the self-reports, such as those quoted above, were also reflected in the questionnaire data.

Despite a history of at least four unsuccessful attempts at therapy over a 23-year period, two of them involving hypnosis, the simple hypnotic intervention described in this experimental setting appears to have produced a stable improvement in fluency which has been maintained for at least 12 months and has been extended to non-laboratory situations. The hypnosis sessions and self-hypnosis practice reduced the subject's speech anxiety and boosted his self-confidence, resulting in increased fluency which was maintained in all follow-up sessions. The post-hypnotic suggestion that the phrase and gesture could diminish anxiety and bring back feelings of calmness and relaxation was found to be very effective. Further follow-up sessions are planned at two and three years to assess the longer-term outcome. Clearly a great deal more experimental work is required to assess the reliability and generality of the findings reported here as well as to explore the role played by hypnosis. Nevertheless the

results are consistent with the view that straightforward anxiety management and ego-strengthening techniques delivered in a hypnotic context are effective in producing a significant and lasting modification in a long-term stuttering problem. Speech therapists and others involved in the treatment of communication disorders should perhaps be encouraged to acquire hypnotic techniques to supplement their existing clinical skills.

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Address for correspondence:

David Oakley,
Hypnosis Unit,
Department of Psychology (Torrington Place),
University College London,
Gower Street,
London WC1E 6BT,
UK