EFFECTS OF DIFFERENT TYPES OF PREPARATORY INFORMATION ON ATTITUDES TOWARD HYPNOSIS

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Abstract

This paper examines how attitudes of initially reluctant subjects towards hypnosis are influenced by three different approaches to introducing the topic. Participants (N = 90) were assigned to one of three experimental conditions: minimal information, cognitive-behavioural information and trance information. All three groups showed positive changes in attitudes toward hypnosis. Contrary to our expectations, positive attitudinal changes were not diminished for subjects exposed to trance information. Groups given trance and cognitive-behavioural explanations demonstrated significantly greater collaboration compared to the control group. No differences in hypnotic suggestibility were obtained.

Key words: attitudes, beliefs, myths, rapport, self-hypnosis

Introduction

Cognitive-behavioural approaches to clinical and experimental hypnosis have highlighted the relevance of client attitudes and beliefs about hypnosis as well as their expectancies about how they will respond to hypnotic procedures (Barber, Spanos and Chaves, 1974; Chaves, 1999). From this perspective, effective treatment with hypnosis requires at least a minimum hypnotic suggestibility level, as well as positive attitudes towards hypnosis and sufficiently positive expectancies about personal responsiveness to these procedures (Capafons, 2001; 2004). The creation of positive attitudes and the eradication of myths about hypnosis are essential steps in establishing the preconditions for effective intervention with hypnosis (Spanos, Brett, Menary and Cross, 1987; Capafons, 1998a). In fact, positive attitudes towards hypnosis at the start of the treatment are a better predictor of therapeutic change than hypnotic suggestibility level (Schoenberger, Kirsch, Gearan, Montgomery and Pastynak, 1997). Providing comprehensive and accurate information about hypnosis is a useful strategy for generating realistic beliefs and positive attitudes towards this technique (Schoenberger, et al., 1997; Hawkins and Bartsch, 2000). As a result, client fears about hypnosis decrease, along with inhibitions about responding to the hypnotic suggestions (Echterling and Whalen, 1995). Moreover, this positive interaction with the client facilitates the establishment of rapport and the development of a sense of relaxation and well-being (Sheehan, 2001). In fact, rapport is widely considered one of the significant socio-psychological factors modulating the hypnotic responses, even though few experimental studies have investigated its role as a modulator process (Sheehan, 2001).
The establishment of a relationship of trust between the therapist and the client may be influenced by the manner in which hypnosis is introduced. Ideally, rapport should be based on accurate information about hypnosis that enhances realistic expectancies about the outcomes to be obtained. However, an exception occurs when a client has both inadequate expectancies and incorrect beliefs even though maintaining a positive attitude towards hypnosis. In this case the therapist should think about giving the client accurate information about hypnosis to counter the myths. From our point of view, the therapist should never conceal real information about hypnosis, especially when such information could help to prevent the establishment of false memories (Capafons, 2001). Providing corrective information can lead to a greater acceptance of hypnosis and enhance adherence to the recommended treatment. This process can often be facilitated by the use of various metaphors that can also help promote positive expectancies about hypnosis, especially when it serves as the primary treatment modality (Capafons, Alarcón and Hemmings, 1999).

Few experimental studies have addressed the contribution of attitudes and the expectancies when hypnosis is employed as an adjunctive treatment strategy (Schoenberger, 2000). There has been some research about the relationship between attitudes and expectancies and responsiveness to hypnotic test suggestions (De Groh, 1989). Several studies have found that the suggestibility level is influenced by attitudes (Barber and Calverley, 1964; Spanos and Barber, 1974; Sheehan and Perry, 1977), however, there does not seem to be a consensus about the extent of this influence. Differences in theoretical perspective seem to play an important role in shaping investigators’ positions on the issue (De Groh, 1989). Nevertheless, authors approaching the topic from different theoretical perspectives seem to agree that positive attitudes and expectancies are important, although they disagree about whether enhancement of attitudes and expectancies is sufficient to achieve the highest levels of hypnotic suggestibility (Spanos, 1982; Spanos et al., 1987; Perry, Nadon and Button, 1992). What has emerged is a model of a non-linear relationship between attitudes/beliefs and hypnotic suggestibility: attitudes are thought to play a modulator role in which the presence of other conditions such as the active interpretation of the suggestions, will lead to increase the hypnotic suggestibility (Spanos et al., 1987).

To sum up, the effective use of hypnosis demands dismantling myths and fostering positive attitudes and high personal expectancies. These variables operate by:

- fostering rapport between the therapist and the client;
- facilitating therapeutic changes in the cognitive-behavioural interventions; and
- enhancing responses to the hypnotic suggestions (Capafons, Alarcón, Cabañas and Espejo, 2003).

Accordingly, the way the therapist or researcher introduces and explains what hypnosis is may have a decisive relevance in changing the misconceptions and negative attitudes towards hypnosis.

According to Kirsch (1993b; 1994) and Capafons (2002; 2004), introducing hypnosis as an altered state of consciousness or trance can make some patients reluctant to use this technique just because they are afraid of it. Also, it can generate fears and inhibit the responses of those who were not afraid of hypnosis initially and who would otherwise be willing to collaborate. Furthermore, belief in the existence of a trance can decrease the experience of feeling hypnotized by generating, in some people, unrealistically high standards for evaluating whether they are hypnotized or not. For instance, Lynn,
Vanderhoff, Shindler and Stafford (2002) found that participants who listened to trance explanations showed lower test suggestions scores than those who listened an explanation in terms of collaboration. Moreover, Lynn, Green, Jaquith and Gasior (2003) found that to present hypnosis in trance terms can raise the criterion used by participant to feel hypnotized, decrementing the experience of feeling hypnotized.

From our point of view, introducing hypnosis as an altered state of consciousness may make it more difficult to change the patients’ negative attitudes and, therefore, decrease responsiveness to hypnotic suggestions. For that reason we have studied the effect that different kinds of preparatory information can have on changes of attitudes of those people who explicitly say that they do not want to be hypnotized, and that they would not let anybody hypnotize them. In one of the conditions of this study, and similarly to the introduction of the Stanford Hypnotic Susceptibility Scale: A (Weitzenhoffer and Hilgard, 1959), we just tell subjects that hypnotized people do not lose control, that their collaboration and interest is needed to hypnotize them, and that hypnosis has shown to be useful to treat some problems such as pain, etc. In the second condition, we use the prior information as well as a cognitive-behavioural presentation of hypnosis (Capafons, 2001; 2004). The cognitive-behavioural presentation is a more elaborated version of Coe’s original idea (1980) as extended by Kirsch (1993a). Their approach, as well as that employed by Weitzenhoffer (1989), uses a Chevreul Pendulum to exemplify what hypnosis is, but no trance ideas are conveyed. In fact, Montgomery and Kirsch (1996) call attention to contextual factors as facilitators of the Chevreul pendulum responses.

In the cognitive-behavioural presentation, the following key ideas are presented:

- Responses to suggestions are acts performed by the client and for that reason they are not dependent on any power the therapist might have. The therapist can only help the client to experience suggested responses.
- Suggested responses are automatic but voluntary. The client initiates or inhibits them, but they are nevertheless experienced as automatic.
- What happens during hypnosis depends mainly on the client making use of certain resources. These resources are similar to those used in performing the actions of everyday life.
- Hypnosis implies that automatic reactions in everyday life can be activated or deactivated at will, at any given moment.
- From this point of view, hypnosis is considered as a form of self-control, even though less conscious effort may be required on the part of the client to regulate certain behaviours.
- To be hypnotized does not mean entering into a trance or altered state of consciousness, but rather involves preparing the mind for activating the resources which, in everyday life, also lead us to initiate responses that we perceive as automatic.

Words like ‘trance’, ‘dissociation’, ‘altered state of consciousness’, etc. are carefully avoided. A pendulum is used to perform an exercise to convey the basic ideas previously mentioned, as well as to provide a comparison to hypnosis of the movies. In the third condition, the same exercise is carried out, and the same ideas are transmitted, but hypnosis is defined as a state of trance, or altered state of consciousness caused by the dissociation that hypnotic methods induce. Also, it is indicated that dissociation is needed to experience the hypnotic suggestions and that the person has control over this process.

Considering Kirsch’s (1993b; 1994) and Capafons’ (2002; 2004) ideas and about
rejection of hypnosis and problems that can be generated by defining hypnosis as a state of trance, we predict the following: the cognitive-behavioural explanation will cause a major positive change of the attitudes towards hypnosis by excluding concepts such as trance or dissociation. Accordingly, we predict that there will be an enhanced response to test suggestions (especially the subjective responses) when a cognitive-behavioural explanation is given. Subjects given a non-specific explanation will show intermediate levels of response to suggestions while those who receive a trance-oriented explanation will show the lowest levels of response. This is because the explanation of trance will create a major rejection and resistance to the hypnotic suggestions, as well as unrealistic criteria for evaluating a participant whether they have been hypnotized or not (Kirsch, 1994).

**METHOD**

**Participants**

The sample consisted of 90 undergraduate volunteers (18 males [20%] and 72 females [80%]) who did not receive any economic or academic reward for their participation. They were randomly assigned to three groups: minimum rapport control group (CG) (N = 30; 6 [20%] males; 24 [80%] females); trance group (TG) (N = 30; 6 [20%] males; 24 [80%] females); and cognitive-behavioural group (CBG) (N = 30; 6 [20%] males; 24 [80%] females). Age ranges were: 18–42 years (Mean = 20.7; SD = 4.34) for the rapport group, 17–25 years (Mean = 19.83; SD = 1.90) for the trance group, and 18–23 years (Mean = 19.13; SD = 1.66) for the cognitive-behavioural group. All of them were students of psychology.

**Measures**

The Valencia Beliefs and Attitudes Toward Hypnosis Scale-Client [VBAHS-C]

The VBAHS-C (Capafons et al., 2003) consists of 28 items rated on a five-point Likert scale from 1 (do not agree) to 5 (agree totally). The scale is based on Keller’s (1998) ‘Hypnosis Belief Survey’, but it also includes items from other questionnaires and some original questions of our own. Capafons et al. (2003) carried out an exploratory factor analysis (N= 761). A varimax rotation factorial solution yielded a six factors structure. Items loading equal or greater than 0.30 were selected. Factors with an eigenvalue equal or above one were retained: ‘automaton’ (α = 0.78); ‘help’ (α = 0.83); ‘personal control’ (α = 0.72); ‘interest’ (α = 0.64); ‘magical solution’ (α = 0.55); and ‘collaboration’ (α = 0.60). Reliability coefficients were 0.55 or higher, except for the ‘collaboration factor’ (rxy = 0.39). Items 4 (‘I am afraid of hypnosis’) and 17 (‘hypnosis fosters the capacity for self-control’) were retained, in spite of being highly saturated in more than one factor, because we consider them criteria items that reflect important attitudes toward hypnosis. Another later study (Capafons, Cabañas, Espejo and Cardeña, 2004) has confirmed the stability of this factor structure using confirmatory factor analysis techniques (N= 2404).

The Barber Suggestibility Scale [BSS]

The BSS (Barber, 1965; Barber and Wilson, 1979) includes a subjective and objective scale, with eight items each. The objective scale completed by the experimenter, ranges from 0 to 8. The subjective scale, completed by participants has a score range of 0–24. The test-retest correlation is over 0.80 for both scales. Split-half reliability is between 0.70 and 0.84 for objective scores and 0.84 to 0.88 for subjective ones. We used the BSS for several reasons: it did not take long to complete; it includes both objective and
subjective scales; it can be used with or without a hypnotic induction; and it correlates with SHCS: A, showing good validity and reliability (Council, 1999).

Procedure
A between groups design was used, with participants pre-selected using their responses to the VBAHS-C. This questionnaire was administered to first year undergraduate students of psychology. Those who responded with the score between 1 or 2 to the item 26 (‘I would like to be hypnotized’) and 3, 4, or 5 to the item 27 (‘I would not allow myself to be hypnotized if someone attempted to’) were selected. Each individual was telephoned, inviting them to participate in the research about self-hypnosis, in which they would be given scientific information in regards to this topic if they so wished. Subsequently, they would be taught the rapid self-hypnosis method (Capafons, 1998b; Martínez-Tendero, Capafons, Weber and Cardeña, 2001; Reig, Capafons, Bayot and Bustillo, 2001), and some test suggestions would be administered. Close to 60% of those selected agreed to participate. Not surprisingly, it was difficult for the researchers (2 females and 1 male, all blind to the study hypotheses) to convince the pre-selected subjects to participate. Participants belonging to the CG were given information described in the introduction (hypnosis is not dangerous, it is useful for various problems, and needs the person’s will and collaboration to be hypnotized). It was proposed that they learn the rapid self-hypnotic method and that they collaborate, allowing that the responses to the suggestions to the BSS be recorded on videotape. If the person accepted (which occurred in all cases), they were given a sealed envelope (whose contents were unknown by the experimenter) with the VBAHS-C, to which they should respond without asking anything of the experimenter, who left the room while the participant responded. Subsequently, the rapid self-hypnosis method was taught and when the participant had learned, s/he was asked to self-hypnotize. When s/he indicated feeling hypnotized, the experimenter applied the BSS. Rapid self-hypnosis is a procedure that includes two steps, hand clasp ing and falling backwards, which are both performed while the participant is seated in a chair. The participant performs exercises involving muscle tension and relaxation and respiration in order to induce the sensation of heaviness in his or her arm. After learning to experience the heavy sensation, he or she is encouraged to reproduce the sensation without the above-mentioned steps. The individual is then considered to be self-hypnotized, and able to receive hypnotic suggestions (Capafons, 1998b; Reig et al., 2001).

In the CBG the same procedure was carried out, however, along with the explanations about hypnosis, the cognitive-behavioural presentation of hypnosis was added (see Capafons, 2001; 2004).

In the TG, the same procedures were also followed, but hypnosis was defined as an altered state of consciousness or trance, caused by the cognitive dissociation produced by the hypnotic induction. The exercise with the pendulum and the metaphor of a movie were adapted to the explanation of trance, maintaining the same basic ideas. Therefore, the three groups included the explanations about minimum rapport, the CBG also included the cognitive-behavioural presentation of hypnosis, and the TG also received a variation of this presentation adapted to the terminology of trance, dissociation, etc.

For each participant two scores were obtained for the objective scale of BSS, recorded by two different experimenters (one of them who addressed the group and the other, one of the other two). If the score for each suggestion differed, the videotape was observed to determine whether the discrepancies in the punctuation were maintained or not. Although according to the correlations there were few discrepancies, when any of them was observed the score retained was that given by the experimenter who observed all the
participants. Also, at the time the discrepancies were solved, the observers did not know the hypothesis.

Analysis

Attitudes towards hypnosis
Items 4, 17, 26 and 27 and scores on each one of the six factors of the VBAHS-C were taken as dependent variables. On the one hand, ten ANOVAs were performed (one for each dependent variable). Each ANOVA was conducted with two independent variables: a between group variable (GROUP), that was the group to which participants were assigned (CG, TG, and CBG) and one within group variable (MOMENT) that was the moment (before and after intervention) when measures for the dependent variables were taken. These ANOVAs were carried out to test the interaction between both variables, and, if not, the influence of the intervention.

On the other hand, ten analyses of covariance (ANCOVA) were conducted (one for each dependent variable too) to test differences among groups in the post-test measures if no interaction was found. In each analysis, the independent variable was the GROUP to which participants were assigned (CG, TG, and CBG), the covariate was the measure of each dependent variable before the intervention (pre-test), and the dependent variable was the measure of the dependent variable after the intervention (post-test). A previous ANOVA yielded no significant statistical differences between conditions on pre-intervention scores. Bonferroni correction to control Type II error was calculated in both cases (\(\alpha = 0.05/10 = 0.005\)).

Response to hypnotic suggestions
To estimate judges’ reliability, a correlation analysis between the two BSS (objective) scores for every participant (one from each observer) was performed separately for the three experimental groups. Furthermore, two ANOVAs were conducted to test possible differences in both scales of BSS of the three experimental groups. The dependent variables were total scores for each scale.

Results

Attitudes
Regarding ANOVAs, no significant interaction was found. However, with respect to the independent variable MOMENT, they showed significant differences between both levels for all dependent variables (p < 0.01), except for the ‘magic solution’ factor. That last result is somewhat expected, since the pre-test mean was very low (see Table 1).

Regarding ANCOVAs, only one significant difference was found among groups: in the ‘collaboration’ factor (\(F_{(2,86)} = 7.924\); MSE = 0.282; p = 0.001). The Bryant-Paulson post-hoc comparisons showed two significant differences (p< 0.01): CG presents a lower mean (3.98) than TG (4.426) and CBG (4.483). However, no differences appear between TG and CBG.

Response to hypnotic suggestion
Correlation coefficients between the observers of each experimental group were very high (CG = 1.00; TG = 0.98; CBG = 0.99), hence, the scores obtained by the ‘shared’ observer were used for all the groups. ANOVAs showed no statistical significant differences between
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Table 1. Pre/post descriptive data and results for the independent variable moment (pre/post)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>F (1,87)</th>
<th>Probability</th>
<th>h2</th>
<th>MSE</th>
<th>Pre Mean</th>
<th>SD</th>
<th>Post Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 4</td>
<td>27.14</td>
<td>0.00*</td>
<td>0.67</td>
<td>1.03</td>
<td>3.08</td>
<td>1.343</td>
<td>2.29</td>
<td>1.154</td>
</tr>
<tr>
<td>Item 17</td>
<td>156.07</td>
<td>0.00*</td>
<td>0.64</td>
<td>0.87</td>
<td>1.96</td>
<td>0.970</td>
<td>3.69</td>
<td>0.990</td>
</tr>
<tr>
<td>Item 26</td>
<td>177.03</td>
<td>0.00*</td>
<td>0.67</td>
<td>0.70</td>
<td>1.59</td>
<td>0.701</td>
<td>3.24</td>
<td>1.053</td>
</tr>
<tr>
<td>Item 27</td>
<td>265.48</td>
<td>0.00*</td>
<td>0.75</td>
<td>0.87</td>
<td>1.67</td>
<td>0.636</td>
<td>3.93</td>
<td>1.100</td>
</tr>
<tr>
<td>Help</td>
<td>32.55</td>
<td>0.00*</td>
<td>0.27</td>
<td>0.36</td>
<td>3.08</td>
<td>0.915</td>
<td>3.59</td>
<td>0.700</td>
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<tr>
<td>Automaton</td>
<td>130.93</td>
<td>0.00*</td>
<td>0.60</td>
<td>0.39</td>
<td>2.79</td>
<td>0.921</td>
<td>1.73</td>
<td>0.727</td>
</tr>
<tr>
<td>Control</td>
<td>202.35</td>
<td>0.00*</td>
<td>0.40</td>
<td>0.55</td>
<td>1.80</td>
<td>0.678</td>
<td>3.37</td>
<td>0.877</td>
</tr>
<tr>
<td>Interest</td>
<td>348.33</td>
<td>0.00*</td>
<td>0.80</td>
<td>0.31</td>
<td>1.54</td>
<td>0.486</td>
<td>3.09</td>
<td>0.748</td>
</tr>
<tr>
<td>Magic</td>
<td>0.24</td>
<td>ns</td>
<td>0.003</td>
<td>0.21</td>
<td>1.47</td>
<td>0.559</td>
<td>1.50</td>
<td>0.587</td>
</tr>
<tr>
<td>Collaboration</td>
<td>13.18</td>
<td>0.00*</td>
<td>0.13</td>
<td>0.29</td>
<td>4.00</td>
<td>0.713</td>
<td>4.30</td>
<td>0.596</td>
</tr>
</tbody>
</table>

*α = 0.05/10 = 0.005

The means for the three groups in the Barber subscales are listed below. For the objective subscale, the means were 4.99 (SD = 1.49) for the CG; 5.50 (SD = 1.75) for the TG; and 5.42 (SD = 1.58) for the CBG. For the subjective scale, the means were 12.83 (SD = 3.85) for the CG; 12.90 (SD = 4.74) for the TG; and 13.13 (SD = 4.09) for the CBG.

Conclusions

The prediction that the cognitive-behavioural explanation decreases negative attitudes toward hypnosis more than trance explanations, has not been validated. Nor could we confirm that trance explanations have an adverse impact on attitudes toward hypnosis. Cognitive-behavioural and trance explanations had a significantly greater impact on the belief that hypnosis involves collaboration between the hypnotist and the people being hypnotized (‘collaboration’ factor) compared to the control group. Therefore, we did not confirm our prediction that a trance-based explanation of hypnosis impaired the development of positive attitude change towards hypnosis.

We also failed to confirm our prediction that a cognitive-behavioural introduction to hypnosis enhances hypnotizability. Partly, this may be due to the fact that the BSS often seems to show a better performance with the use of trance-related wording (Barber, Wilson and Scott, 1980), but above all, it seems to be caused by the relevant attitudinal changes produced by the three kinds of explanations. Although it cannot be stated that there is an important and linear correlation between attitudes and responses to the test suggestions (Spanos et al., 1987; De Groh, 1989), we had predicted that the trance explanation would make it difficult to achieve positive attitude change, so we expected lower scores in that group on Barber’s scales, which did not happen. However, we do not know what has been the influence of labelling the situation as ‘self-hypnosis’. It is possible that it produces less fear of being manipulated or getting trapped in a trance. Therefore, this approach can generate less rejection of the idea of being hypnotized, regardless of what explanations are given, as long as the ‘self-hypnosis’ label emphasizes the personal control and the lack of risks. At the present time a research conducted by our group is...
investigating the influence of labelling the situation as ‘hetero-hypnotic’. First results indicate that the trance group provokes about a 30% of drop out, a percentage statistically significant and superior to other groups. Future research should investigate the effect of changing the type of scale to explore its influence on the test suggestions, and of using a questionnaire to evaluate the attitudes towards hypnosis with a greater temporary stability with data of confirmatory factor analysis. Finally, the sample should be changed to determine the effects of the explanations we have studied in participants who are not students. We do not know if the students of psychology tend to trust more in the explanations given at the University and by university experts than other kinds of participants (Green, Rasekh, Johnson and Bernhardt, 2000).

Therefore, it seems that the important variables in fostering a positive rapport is that the participants believe that they retain control when they are hypnotized, that hypnosis is not iatrogenic (i.e. not something that is done to them), and that the hypnotist will use it only for sufficient professional purposes. From this perspective, an important aspect of control is collaboration of the hypnotized person with the hypnotist because the consent and the agreement of the hypnotized person are required in order for hypnosis to occur successfully. Use of practical exercises such as that of the pendulum and explanation of concepts such as self-inhibition and counter-suggestions that are present in both cognitive-behavioural and trance explanations increment the person’s belief that hypnosis requires his or her collaboration.

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