The Impact of Stage Hypnosis on Audience Members and Participants

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THE IMPACT OF STAGE HYPNOSIS ON AUDIENCE MEMBERS AND PARTICIPANTS

JAMES MACKILLOP, STEVEN JAY LYNN, AND ERIC MEYER

State University of New York at Binghamton, USA

Abstract: Before and after a stage-hypnosis performance, 67 audience members and 6 participants completed the Hypnotic Attitudes Questionnaire (HAQ), the Posthypnotic Experience Scale (PES), and several questions related to attitudes about performing in public. Audience members’ beliefs about hypnosis (HAQ total and factor scores), experience ratings (PES factor scores: pleasantness, anger/irritability, anxiety), and responses to the performance-related questions changed in a positive direction after the performance. The participants in the show reported no significant pre- to postperformance changes. However, there were indications that the onstage participants exhibited generally favorable attitudes toward hypnosis and performing before they engaged in the actual performance.

The public image of stage hypnosis as a theater of the absurd in which people onstage seem compelled to engage in uncharacteristic actions, such as imitating barnyard animals and impersonating Elvis Presley, has done little to endear stage hypnosis to the scientific and professional community. Crasilneck and Hall (1985) have argued that the image of hypnosis created by such performances is so pernicious that it reverberates well beyond the stage to limit the public’s willingness to engage in legitimate psychotherapeutic enterprises involving hypnosis. Moreover, Kline (1976) has contended that stage hypnosis can have serious negative effects on participants. In one legal case before one of the High Courts of Britain (see Wagstaff, 2000), it was (unsuccessfully) argued that participation in a stage-hypnosis performance precipitated a psychotic break several months later.

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Whereas few would argue that stage hypnosis has played a role in shaping the public image of hypnosis, the claims that stage-hypnosis performances have a negative effect on participants and engender negative audience perceptions of hypnosis are open to question. Many reports that individuals have experienced negative sequela that arise directly from stage-hypnosis performances are anecdotal (Allen, 1995; Heap, 1995; Kleinhaus, Dreyfuss, Beran, Goldberg, & Akijri, 1978; MacHovec, 1987) and therefore of limited evidential value. Although two studies (Crawford, Kitner-Triolo, Clarke, & Olesko, 1992; Echterling & Emmerling, 1987) have assessed participants who performed in a show and found some evidence for mild negative aftereffects for small subsets of the participants, individuals were assessed only at one point in time: after the performance. In the absence of baseline data prior to the performance, it is difficult to be certain that the negative effects identified were a direct result of the performance. Furthermore, previous studies of stage hypnosis have failed to examine or control for preexisting psychopathology based on reliable and valid psychometric instruments.

By contrast, laboratory studies of hypnosis have shown that no significant differences exist in terms of negative posthypnotic experiences when hypnosis and various nonhypnotic control conditions are compared and when preexisting pathology is statistically controlled (Lynn, Brentar, Carlson, Kurzhals, & Green, 1992; Sivec & Lynn, 1993). Although the differences between clinical, research, and stage hypnosis are manifold (Lynn, Martin, & Frauman, 1996), it is possible that stage hypnosis would not exert a demonstrably pernicious influence if appropriate control conditions are employed and prehypnotic experiences and psychopathology are taken into consideration or controlled for on a statistical basis.

Whereas the negative sequelae of participants’ performances in stage-hypnosis shows have received a modicum of attention, only one empirical study (i.e., using a well-validated measure) of the impact of stage hypnosis on audience members has been conducted. Echterling and Whalen (1995) compared changes in attitudes toward hypnosis (Hypnotic Attitudes Questionnaire; HAQ; Spanos, Brett, Menary, & Cross, 1987) following a stage-hypnosis performance, an educational lecture, and a control group of individuals unable to get tickets to the performance. The researchers found that participants in both the performance hypnosis and the educational lecture conditions reported: (a) an increase in their motivation to use hypnosis in treatment and (b) a decreased belief that the ability to be hypnotized reflects lower intelligence. Although the lecture tempered the belief that a hypnotized person is “robot-like” and responds automatically to all suggestions, the stage hypnosis show increased endorsement of this belief. Unfortunately, the HAQ scores were not analyzed according to the validated factor structure of the measure or in terms of the total score, as
suggested by the scale authors (Spanos et al., 1987), rendering the findings of the Echterling and Whalen study less than conclusive.

In a more recent study, Johnson and Hauck (1999) found that 30% of college students who witnessed a stage performance reported that it had the most impact on their ideas about hypnosis, and 23% reported that the performance had some influence on their ideas about hypnosis. In addition, 70% of the audience reported that they had an overall positive impression of hypnosis. These findings, although limited in scope, imply that the stage hypnosis experience did not engender negative opinions about hypnosis.

The present study extends previous research by examining both stage hypnosis participants’ and audience members’ responses on well-validated measures of posthypnotic experiences (the Posthypnotic Experiences Scale, PES; Brentar, Lynn, Carlson, & Kurzhals, 1992), hypnotic attitudes (Hypnotic Attitudes Questionnaire; HAQ; Spanos et al., 1987), and negative affect (the Beck Depression Inventory; BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) both 36 hours before and immediately after the performance.

METHOD

Participants

The participants were 73 male attendees of the 65th Sigma Alpha Epsilon Leadership School in Chicago, Ill. Of these, 67 attendees were audience members; 6 were participants on stage. All attendees were required to be undergraduates and none were nontraditional students. The participants represented 30 states.

Measures

The Hypnotic Attitudes Questionnaire. The HAQ is a 14-item psychometrically reliable instrument that has been shown to have adequate internal validity (Spanos et al., 1987). The HAQ has three partially independent attitude dimensions, (a) positive beliefs about hypnosis, (b) beliefs about the mental stability of hypnotizable people, and (c) an absence of fear concerning hypnosis. The HAQ also yields a global score of positive or negative attitudes toward hypnosis. Attitudes are measured on a Likert scale from one to seven, labeled respectively, Not at all true to Very true. Scores range from 5 to 35, 4 to 28, and 5 to 35 for each dimension, respectively; total scores range from 14 to 108.

Posthypnotic Experiences Scale. The PES is a 65-question instrument that has exhibited both convergent and discriminant validity as well as internal consistency (Brentar et al., 1992). The PES exhibits a reliable factor structure composed of four types of posthypnotic experiences: (a) pleasant, (b) somatic-kinesthetic, (c) irritability/anger and (d) anxiety. Items on
the PES describe experiences (e.g., “I feel refreshed”). Respondents label their endorsement of the experience on a Likert scale from one to five, ranging from Not at all to Extremely. The characteristics measured (e.g., anxiety, anger) are not exclusively related to hypnosis, so the measure can be used as a prehypnosis as well as posthypnosis measure of experiences.

The Beck Depression Inventory. The BDI is a 21-item self-report measure of depressive symptoms and yields a single score from 0 to 63. The BDI has acceptable psychometric properties (see Rabkin & Klein, 1987).

Public-Performance Attitude Measures (PPA). The following questions adopted the same Likert format as the HAQ and were administered with the HAQ to assess specific attitudes related to public performance. They were: (a) “I would like to be in a stage hypnosis show” (b) “I feel comfortable performing in front of a group,” and (c) “When I perform public speaking (give a speech), I feel anxious.”

Procedure

Participants completed measures within 36 hours before the hypnosis session and immediately after the performance. Packets containing the measures used were distributed in classrooms at the University of Illinois at Chicago to attendees during daily voluntary seminars for the Sigma Alpha Epsilon leadership school, which is an annual, weeklong event attended by undergraduates who participate in various activities and lectures oriented toward improving undergraduate fraternity leadership. Attendees resided on campus for the course of the week, and all activities and seminars were voluntary.

Members of the leadership-school faculty, who led the seminars and had been briefed on the study goals, disseminated the questionnaire packets. Participants who attended seminars on July 30th and 31st, 2000, were asked to complete questionnaire packets. The performance took place on August 1st, 2000. All postperformance questionnaires were completed and collected immediately following the performance. Packets were placed on audience members’ chairs with instructions not to open them until after the performance. An announcement was made to the audience immediately following the show and questionnaires were collected as individuals left the auditorium. Measure packets were rematched by the last four digits of the subjects’ social security numbers. Any duplicate numbers were relabeled using names for clarification.

Stage-Hypnosis Performance

The auditorium lights were lowered and new-age music was played softly. Approximately 20 volunteers expressed interest in being participants and were invited onstage. The hypnotist used a long, hand-held wand with a green luminous tip and instructed both the volunteers on stage and audience members to attend to the wand,
which he rhythmically moved back and forth. He then described the mind as functioning on two levels, conscious and subconscious, and said that hypnosis was a means of making the conscious mind less active and the subconscious mind more active. Participants were further informed that when the subconscious mind is activated, it more readily accepts what it is told and governs the body accordingly. However, it was also stated that individuals are in complete control during hypnosis and will not do anything contrary to their principles. Additionally, it was stated that hypnotized persons would not stay in a hypnotic state if they wanted to "come out of it."

The hypnotist then suggested that as both the volunteers and the audience were watching the wand, they were becoming progressively more tired and their eyes were closing. The induction involved progressive suggestions of tiredness, culminating in sleep. At this point, the hypnotist suggested that both the volunteers and audience felt their right arms uncontrollably rise. Individuals who did not respond on stage were asked to return to the audience, and audience members who responded to the suggestion were brought to the stage, creating the participant group. When the participant group was established on stage, instructions of progressively deeper sleep and relaxation were given, specifically targeted to the participants onstage.

The hypnotist then orchestrated a variety of suggestions for the participants to respond to. Participants received group suggestions (e.g., behaving as a flock of geese or finding oneself 7-months pregnant), individual suggestions (e.g., the inability to say a specific number or slipping out of one’s chair when certain words were used), and group-individual suggestions (e.g., a coordinated performance with one individual as Brittany Spears, another as Buddy Holly, and the rest of the performers as individual back-up band members). Additionally, posthypnotic suggestions, such as the inability to walk, were made and illustrated following a progressive awakening. The show lasted approximately 1.5 hours, and at the conclusion the hypnotist described personal situations in which hypnosis could be of assistance such as smoking cessation or weight loss.

RESULTS

The results were analyzed separately for the audience members and participants based on the small number of individuals who participated in the performance. The findings pertaining to the participants are regarded as exploratory given the small sample size.

A. Audience

Attitude and belief change. A within-subjects (prehypnosis vs. posthypnosis) multivariate analysis of variance (MANOVA) was
conducted on the three factors of the HAQ and total score for audience members and was significant, $F = 11.40, p < .001$. Following the significant MANOVA, individual ANOVAs were conducted on the three factors for the audience cohort. Significant increases across trials were found for all three subscales: “Positive beliefs about hypnosis” ($F = 26.63, p < .001$), “Absence of beliefs that hypnosis is related to mental instability” ($F = 12.836, p < .002$), and “Absence of fear concerning hypnosis” ($F = 9.91, p < .005$). A within-subjects ANOVA conducted on the total score was significant, $F = 32.21, p < .001$, and indicated an increase in overall positive attitudes toward hypnosis. Table 1 presents means, standard deviations, effect sizes, and significance level of factors and total scores.

A within-subjects MANOVA conducted on the three public-performance attitude (PPA) questions was found to be significant for the audience, $F = 9.18, p < .001$. Univariate ANOVAs on the audience group indicated that endorsement of the statements “I would like to be in a stage hypnosis show,” $F = 26.42, p < .001$, and “I feel comfortable performing in front of a group,” $F = 7.26, p < .01$, increased across trials as shown in Table 1.

Echterling and Whalen (1995) analyzed neither HAQ factor scores nor total score as suggested by the instrument developers (Spanos et al., 1987). Instead, they analyzed pre and post changes at the level of individual items. For this reason, individual items were analyzed to determine if their results could be replicated. A within-subjects MANOVA was performed on pre- and posttest item scores and was significant, $F = 5.67, p < .001$. When individual items were examined using one-way ANOVAs, we were unable to replicate the finding of an increase in the belief that “Intelligent people are least likely to get hypnotized,” $F = 2.32, p = ns$. Table 2 presents pre- and posttest changes across individual items.

Exploratory ANOVA analyses of item changes were conducted to examine additional changes at the item level. Since no other individual item a priori directional hypotheses were made, a Bonferroni correction was applied, correcting alpha to $p < .0038$. A significant increase was found for the reported beliefs “I find the whole idea of becoming hypnotized attractive,” $F = 15.61, p < .001$; “I would like to become deeply hypnotized,” $F = 23.31, p < .001$; “I would not mind being known as someone who can be deeply hypnotized,” $F = 12.69, p < .002$; and an increase on the item “I am totally open to being hypnotized” approached significance, $F = 8.64, p = .005$. There was a significant decrease in the belief “I wonder about the mental stability of those who become deeply hypnotized,” $F = 24.612, p < .001$, and “I am wary of becoming hypnotized because it means giving up my free will,” $F = 10.74, p < .003$. 
<table>
<thead>
<tr>
<th>Table 1</th>
<th>Means, Standard Deviations, Effect Sizes, and Significance of Dependent Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Audience</td>
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<tr>
<td></td>
<td>Pretest</td>
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<tr>
<td></td>
<td>Mean</td>
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<td></td>
<td></td>
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<tr>
<td><strong>HAQ Factors</strong></td>
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<tr>
<td>Positive beliefs about hypnosis</td>
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</tr>
<tr>
<td>Absence of fear concerning hypnosis</td>
<td>21.10</td>
</tr>
<tr>
<td>Beliefs about the mental stability of hypnotizable people</td>
<td>20.36</td>
</tr>
<tr>
<td>Total HAQ score</td>
<td>61.18</td>
</tr>
<tr>
<td><strong>PPA measures</strong></td>
<td></td>
</tr>
<tr>
<td>“I would like to be in a stage hypnosis show”</td>
<td>3.54</td>
</tr>
<tr>
<td>“I feel comfortable performing in front of a group”</td>
<td>4.19</td>
</tr>
<tr>
<td>“When I perform public speaking (give a speech), I feel anxious”</td>
<td>4.42</td>
</tr>
<tr>
<td><strong>PES factors</strong></td>
<td></td>
</tr>
<tr>
<td>Pleasant</td>
<td>75.18</td>
</tr>
<tr>
<td>somatic-kinesthetic</td>
<td>16.57</td>
</tr>
<tr>
<td>Anxiety</td>
<td>17.45</td>
</tr>
<tr>
<td>BDI</td>
<td>4.64</td>
</tr>
</tbody>
</table>

\( * p < .05; ** p < .01; *** p < .001. \)
Table 2
Means, Standard Deviations, and Significance for Individual HAQ Questions for Audience Members and Participants

<table>
<thead>
<tr>
<th>Hypnotic Attitudes Questionnaire</th>
<th>Audience</th>
<th></th>
<th></th>
<th>Participants</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>Pretest</td>
<td>Posttest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>1. “I find the whole idea of becoming hypnotized an attractive prospect”</td>
<td>4.25</td>
<td>1.85</td>
<td>5.08*</td>
<td>1.84</td>
<td>6.50</td>
<td>.83</td>
</tr>
<tr>
<td>2. “I have some apprehensions about hypnosis and being hypnotized”</td>
<td>4.11</td>
<td>1.70</td>
<td>3.48</td>
<td>2.05</td>
<td>2.66</td>
<td>2.42</td>
</tr>
<tr>
<td>3. “If someone tried to hypnotize me, I would tend to hold myself back rather than let myself get carried away”</td>
<td>4.02</td>
<td>2.11</td>
<td>3.41</td>
<td>2.09</td>
<td>2.33</td>
<td>2.33</td>
</tr>
<tr>
<td>4. “I would like to become deeply hypnotized”</td>
<td>3.81</td>
<td>2.14</td>
<td>5.02*</td>
<td>2.15</td>
<td>6.33</td>
<td>1.21</td>
</tr>
<tr>
<td>5. “I wonder about the mental stability of those who become deeply hypnotized”</td>
<td>3.54</td>
<td>2.20</td>
<td>2.53*</td>
<td>1.91</td>
<td>2.83</td>
<td>1.72</td>
</tr>
<tr>
<td>6. “Those who are easily hypnotized are weak people”</td>
<td>2.11</td>
<td>1.47</td>
<td>1.84</td>
<td>1.34</td>
<td>1.33</td>
<td>.52</td>
</tr>
<tr>
<td>7. “Those who become deeply hypnotized are as normal and well-adjusted as anyone”</td>
<td>5.33</td>
<td>1.79</td>
<td>5.61</td>
<td>1.79</td>
<td>5.50</td>
<td>1.38</td>
</tr>
<tr>
<td>8. “I would not mind being known as someone who can be deeply hypnotized”</td>
<td>4.66</td>
<td>1.84</td>
<td>5.47*</td>
<td>1.82</td>
<td>5.50</td>
<td>2.07</td>
</tr>
<tr>
<td>9. “Intelligent people are the least likely to get hypnotized”</td>
<td>2.42</td>
<td>1.63</td>
<td>2.11</td>
<td>1.46</td>
<td>1.83</td>
<td>.98</td>
</tr>
<tr>
<td>10. “I’m not afraid of becoming hypnotized”</td>
<td>4.48</td>
<td>1.83</td>
<td>4.70</td>
<td>2.09</td>
<td>6.00</td>
<td>1.54</td>
</tr>
<tr>
<td>11. “I am wary about becoming hypnotized because it means giving up my free will”</td>
<td>3.88</td>
<td>1.97</td>
<td>3.07*</td>
<td>2.02</td>
<td>2.00</td>
<td>1.09</td>
</tr>
<tr>
<td>12. “I am totally open to being hypnotized”</td>
<td>4.00</td>
<td>2.12</td>
<td>4.78*</td>
<td>2.08</td>
<td>6.50</td>
<td>1.22</td>
</tr>
<tr>
<td>13. “One’s ability to be hypnotized is a sign of their creativity and inner strength”</td>
<td>3.28</td>
<td>1.61</td>
<td>3.64</td>
<td>1.69</td>
<td>3.66</td>
<td>2.16</td>
</tr>
<tr>
<td>14. “A deeply hypnotized person is robot-like and goes along with whatever the hypnotist suggests”</td>
<td>4.00</td>
<td>1.68</td>
<td>3.95</td>
<td>2.14</td>
<td>3.00</td>
<td>2.45</td>
</tr>
</tbody>
</table>

*<.0038 (Bonferroni Correction); | approached significance p = .005.
Posthypnotic experiences. The PES yields four subscales measuring potential posthypnotic experiences: (a) pleasant, (b) somatic-kinesthetic, (c) anger/irritability, and (d) anxiety. A within-subjects MANOVA was conducted on the four PES factors and was found to be significant, $F = 10.45$, $p < .001$. Audience members showed significant increases in pleasant experiences, $F = 5.24$, $p < .05$, and decreases in anger/irritability, $F = 38.58$, $p < .001$, and anxiety, $F = 12.07$, $p < .005$. There were no significant changes in somatic-kinesthetic experiences, $F = 1.09$, $p < .30$. Table 1 presents means, standard deviations, effect sizes, and significance for both groups.

Negative affect. Although the BDI was intended as a measure to control for global rather than transient negative affect, an exploratory within-subjects ANOVA was conducted on BDI and was found to be significant, $F = 41.16$, $p < .001$, as shown in Table 1.

B. Participants

Attitude and belief change. Since MANOVA analysis requires substantially more cases (subjects) than dependent variables (Tabachnik & Fidell, 2001), the small sample size of participants precluded the use of this technique. Instead, univariate within-subjects ANOVAs were conducted on HAQ factors, total score, and public-performance attitude questions. No significant differences were found, $F's = .00–.927$, $p = ns$). Table 1 presents means, standard deviations, effect sizes, and significance.

Although the findings of Echterling and Whalen (1995) related to an audience sample, exploratory individual ANOVAs on HAQ items to determine potential item-level influence were conducted with a Bonferroni correction of alpha to $p < .0038$. None were found to be significant, $F's = .00–10.47$, $p = ns$. Table 2 presents means, standard deviations, and significance.

Posthypnotic experiences. Individual ANOVAs were conducted on the four PES subscales. A significant reduction on the anxiety/irritability subscale was found, $F = 10.5$, $p < .05$, although no other changes were significant, $F's = .04–2.10$, $p = ns$). Table 1 presents means, standard deviations, and effect sizes.

Negative affect. A within-subjects ANOVA was conducted on BDI scores for the participant group but was not significant, $F = 2.66$, $p = ns$. Table 1 presents means, standard deviations, effect size, and significance.

C. Correlations

Correlations between the HAQ factors and total score and the PES factors are presented in Table 3. As can be seen in the table, the PES “pleasantness” factor was significantly correlated with both the HAQ factor of an “absence of fear concerning hypnosis,” $r = .38$, $p < .01$, and with the HAQ total score, $r = .39$, $p < .01$. The PES somatic-kinesthetic
<table>
<thead>
<tr>
<th>HAQ Factors</th>
<th>PES Factors</th>
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<tbody>
<tr>
<td></td>
<td>Pleasantness</td>
</tr>
<tr>
<td>Positive beliefs about hypnosis</td>
<td>.26</td>
</tr>
<tr>
<td>Beliefs about the mental stability of hypnotizable people</td>
<td>.15</td>
</tr>
<tr>
<td>An absence of fear concerning hypnosis</td>
<td>.38**</td>
</tr>
<tr>
<td>Total score</td>
<td>.39**</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01.
factor was significantly correlated with the HAQ total score, $r = .28$, $p < .05$.

**DISCUSSION**

Our findings do not support the claim that stage hypnosis has a global negative impact on audience members and participants in the performance. In fact, when we examined the pre- and postperformance reports of the audience members, it was apparent that after the performance the audience members’ (a) positive beliefs about hypnosis increased, (b) fear concerning hypnosis decreased, (c) ratings of the mental stability of hypnotizable people increased, and (d) total score on the measure of hypnotic attitudes (HAQ) reflected more positive beliefs about hypnosis.

When we analyzed individual items on the attitude scale, following the approach of Echterling and Whalen (1995), we failed to replicate their finding that the performance increased endorsement of the belief that “intelligent people are the least likely to get hypnotized.” In fact, we documented pre- and posttest changes in positivity of beliefs regarding hypnosis in terms of participants’ endorsement of items relating to the attractiveness of becoming hypnotized, being known as someone who can be deeply hypnotized, becoming deeply hypnotized, and participating in a stage-hypnosis show. Relatedly, after hypnosis, audience members were less likely to “wonder about the mental stability of those who are deeply hypnotized” and less likely to express wariness “about becoming hypnotized because it means giving up my free will.”

Audience members also reported more pleasant experiences, less depression, and less anger/irritability and anxiety after hypnosis than they did before the performance. Furthermore, small to moderate correlations between the HAQ total score and the pleasantness and somatic-kinesthetic factors of the experience inventory indicated that positive experiential changes reported by the audience members paralleled changes in their beliefs about hypnosis.

Taken together, our results indicate that observing the performance was a generally positive experience for audience members. However, the pattern of findings for participants in the performance was less conclusive. Participants’ reports across measures of hypnotic attitudes, experiences, and mood were not significantly changed by the performance.

Two methodological limitations imply that the results obtained might represent an underestimation of within-subjects change. Because our sample of participants consisted of only 6 individuals, the statistical power of the analyses for this group was limited. However, the changes in beliefs and experiences reported by participants traced the general positive trends of the responses of the audience members. In terms of
the PES, scores on the anger/irritability subscale were substantially and significantly reduced, and two other subscales changed reflecting a positive impact. In the case of the HAQ, all three factors and the total score increased in the direction of greater positivity. From the standpoint of individual HAQ items, of the 14 total items, 12 showed increased positivity, whereas one item remained the same and another item changed in a negative direction. This latter item was “A deeply hypnotized person is robot-like and goes along with whatever the hypnotist suggests” and would have achieved significance ($p = .025$), were it not for the Bonferroni correction ($p < .0038$).

The data strongly support the conclusion that the beliefs and experiences of participants regarding hypnosis did not shift in a negative direction following the performance. To the contrary, participation in the show generally produced reports that corresponded to the positive changes in beliefs and experiences reported by the audience members. Future research should combine self-report measures (e.g., psychopathology, attitudes, expectations) with individual, structured interviews to assess reports of a variety of transient experiences and symptoms, including those more focused on negative physiological reactions not necessarily included on the PES. It would also be worthwhile to examine the association of hypnotic suggestibility and negative posthypnotic experiences with larger, more representative samples of individuals who participate in stage-hypnosis shows, which could, perhaps, be conducted in the context of the experimental laboratory. Additionally, the use of control groups in experimental designs would considerably add to the validity of future research. Finally, future endeavors should be couched in the context of other phenomena associated with undue reactions, such as negative posthypnotic reactions in clinical and experimental settings (e.g., Frauman, Lynn, & Brentar, 1993) and nonhypnotic techniques resulting in extreme reactions (Gravitz, 1990) in developing hypotheses and experimental designs.

A second reason why it might have been difficult to demonstrate changes in participants’ beliefs is that they scored near the ceiling of positive hypnotic attitudes on the HAQ prior to the performance. For example, with respect to the factor “absence of fear concerning hypnosis,” participants’ pretest scores averaged 5.9 (out of 7). The possibility of the operation of a ceiling effect was reinforced by the observation that participants had higher baseline scores on all three of the HAQ scales and total score relative to nonparticipants. In addition, participants scored 6.7 (out of 7) on the pretest item relating to positive feelings about being in a stage hypnosis show, whereas audience members’ scores averaged only 3.5 on this item. Inspection of means on the questions relating to performing in public indicated that before hypnosis, participants expressed highly positive attitudes about being in a stage hypnosis show and performing in front of a group.
The role of both limitations is corroborated by inspection of effect sizes for dependent variables in Table 1. For multiple variables, effect sizes for the participant group are similar to the audience group or of sufficient magnitude to suggest that adequate sample size would have demonstrated significance. However, on other variables, insubstantial effect sizes suggest that regardless of sample size, no effects would be found; notably, this was the case for items such as “I would like to be in a stage-hypnosis performance.” Taken together, these findings support both possibilities: that the small sample size reduced the likelihood of identifying within-subject differences and that participants who are selected to perform in a stage-hypnosis performance evince especially positive attitudes toward hypnosis prior to the performance.

Although the present study found no evidence for negative sequelae of stage hypnosis on the part of audience members or performers, questions can be raised about the generalizability of our findings. First, all of the participants in our study were college males who were involved in a weeklong conference that fostered a collegial atmosphere among the participants and perhaps buffered participants against the experience of negative posthypnotic effects. Due to the voluntary nature of attendance at the seminars and the performance, participant selection bias cannot be ruled out.

Second, beliefs about hypnosis and posthypnotic experiences were measured over a short time-window. Demand characteristics associated with the levity of the show might have engendered underreporting of negative experiences.

Third, our research involved only one stage-hypnosis show, which may not be typical of other such shows. For example, in the stage-hypnosis show we studied, individuals were told that they were in complete control during hypnosis, that they would not do anything contrary to their principles, and that they would not stay in a hypnotic state if they wanted to “come out of it.” Providing individuals with accurate, myth-dispelling information about hypnosis may well have contributed to the generally positive impact of the performance on attendees.

Accurate information about hypnosis is crucial to impart to participants and audience members as a precautionary intervention. Unfortunately, little is known about what individuals are told about hypnosis in stage-hypnosis shows around the country. Clearly, future research is warranted that examines the role of information that is presented at stage-hypnosis shows that shapes attitudes, beliefs, and expectations about hypnosis.

Although our research focused on group effects, rather than on the negative effects reported by one or a subgroup of individuals, we were able to examine individual scores on a well-respected measure of negative affect and depression: the BDI. Inspection of BDI scores
revealed that only 2 of the 59 audience members who completed the BDI both prior to and following the performance showed an increase in their score (average increase $= 1.5$ points). By contrast, 39 members of the audience showed a decrease in BDI score (average decrease $= 4$ points, with 4 subjects showing a decrease of 10 points or greater). The participants in the performance reported either no change or pretest to posttest decreases in their scores on the BDI; none of the pretest or posttest scores qualified as even “mildly depressed” (Rabkin & Klein, 1987).

Nevertheless, our findings do not categorically exonerate stage hypnosis from having deleterious effects on certain individuals. The fact that none of the participants were depressed prior to the performance implies that our results cannot be generalized to more high-risk samples. As with many forms of entertainment, some level of risk of negative sequela exists based on affective content and arousal inherent in the performance and the diversity of consumers. For example, a severely depressed individual may have a particularly strong or acute reaction to a film related to suicide. With respect to stage hypnosis, a highly suggestible, socially anxious, or depressed person who is recruited from the audience could also react adversely to a stage-hypnosis experience.

It could be argued that the potential for a negative reaction to film or literature, for example, much less stage hypnosis, should not incriminate these forms of entertainment but rather illustrates the need to examine the cost-benefit ratio of any entertainment form. Will a particular film, play, or book cause harm to a significant portion of its viewing public? In the case of a film, a sociocultural algorithm of potential harm comes in the form of review boards, rating systems, censors, and so forth. Via this process of disseminating entertainment, it is assumed that the risk to the intended consumer will be limited although not necessarily entirely eliminated. Some form of circuit breaker exists for virtually every medium.

At present in the United States, stage hypnosis has not run the gauntlet like other forms of entertainment to reach the general public. In fact, stage hypnosis has evaded scrutiny or institutional control of any sort. This is not the case in other countries, such as Israel, South Africa, and Australia, where stage hypnosis is regulated to varying extents. However, based on the dearth of conclusive experimental evidence, it can be argued that these policies are no more informed than those permitting unrestricted practice of stage hypnosis. It is suggested by the present data that stage hypnosis, in addition to being entertaining, improves participants’ and audience members’ perception of hypnosis in general. Given the substantial role that positive beliefs about hypnosis play in hypnotic responding (McConkey, 1986) and evidence for the effectiveness of hypnosis in clinical applications
(for a comprehensive review, see International Journal of Clinical and Experimental Hypnosis, 2000, Volume 48, and see also Borckardt & Nash, 2002; Langenfeld, Cipani, & Borckardt, 2002; Rucklidge & Saunders, 2002), institutional prohibition of a form of entertainment that may enhance public perceptions of hypnosis may be as equally premature as unrestricted practice.

In conclusion, our findings reveal that the stage-hypnosis performance we studied was enjoyed by many audience members, was generally well tolerated by participants, and generated positive beliefs about hypnosis (see also Echterling & Whalen, 1995; Johnson & Hauck, 1999). However, the parameters that determine whether a particular individual will react positively or negatively to a stage-hypnosis show are still largely unknown, as are the answers to questions such as, “What specific suggestions or attitudes about hypnosis predispose individuals toward negative reactions?” and “How might a stage hypnotist reduce the likelihood of negative reactions?” The reported findings provide a tentative exculpation of stage hypnosis, however, it is critical that further empirical research adequately address the aforementioned questions and the methodological and experimental variables enumerated above.

REFERENCES


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**Der Einfluss von Bühnenhypnose auf das Publikum und die Teilnehmer**

James MacKillop, Steven Jay Lynn, und Eric Meyer

Zusammenfassung: Jeweils vor und nach einer Bühnenhypnoseshow füllten 67 Besucher den Hypnotic Attitude Questionnaire (HAQ) sowie die Posthypnotic Experience Scale (PES) aus und beantworteten einige Fragen zur Einstellung gegenüber dem Auftreten in der Öffentlichkeit. Die Meinungen des Publikums über Hypnose (HAQ Gesamt- sowie Faktor-Scores), die Erfahrungsberichte (PES Faktor-Scores: Valenz, Ärger/Reizbarkeit, Angst) und die Antworten auf Fragen zum Auftreten in der Öffentlichkeit veränderten sich nach der Darbietung in positiver Richtung. Diejenigen, die an der Show teilgenommen hatten, berichteten keine signifikanten Veränderungen zwischen den Messzeitpunkten vor und nach der Show.
Allerdings gab es Anzeichen dafür, dass die Teilnehmer, schon bevor sie an dem Auftritt mitwirkten, insgesamt günstige Einstellungen gegenüber Hypnose und gegenüber dem Auftreten hatten.

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L’impact de l’hypnose de scène sur des membres de l’audience et des participants

James MacKillop, Steven Jay Lynn, et Eric Meyer
Résumé: avant et après une représentation d’hypnose sur scène, 67 membres de l’audience et 6 participants ont rempli le questionnaire d’attitudes hypnotique (HAQ), l’échelle d’expérience post-hypnotique (PES) et plusieurs questions liées aux attitudes vis-à-vis de la représentation en public. Les croyances des membres de l’audience sur l’hypnose (total HAQ et résultat factoriel), l’évaluation de l’expérience (résultat factoriel PES: agrément, colère/irritabilité, anxiété) et les réponses aux questions qui portaient sur la représentation ont évolué vers une direction plus positive après la représentation. Les participants « au show » n’ont pas montré de changements significatifs entre l’avant et l’après. Cependant, certaines indications montraient que les participants qui vont sur scène manifesterent généralement des attitudes favorables envers l’hypnose et envers la représentation avant même de prendre part à celle-ci.

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El impacto de la hipnosis de espectáculo en miembros de la audiencia y participantes

James MacKillop, Steven Jay Lynn, y Eric Meyer
Resumen: Antes y después de un espectáculo de hipnosis, 67 miembros de la audiencia y 6 participantes completaron el Cuestionario de Actitudes Hipnótica (HAQ), la Escala de Experiencias Posthipnóticas (PES), y varias preguntas relacionadas con las actitudes con respecto a actuar en público. Las creencias de los miembros de la audiencia sobre la hipnosis (puntuaciones en el HAQ totales y factoriales), las evaluaciones de la experiencia (puntuaciones factoriales del PES: agrado, enojo/irritabilidad, ansiedad), y las respuestas a las preguntas sobre actuar en público cambiaron en una dirección positiva después del espectáculo. Los participantes del espectáculo no mostraron cambios significativos antes y después del espectáculo. Sin embargo, hay indicaciones de que los participantes en el escenario en general mostraron actitudes hacia la hipnosis más favorables antes de participar en el espectáculo.

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