

THE SYSTEMATIC STUDY OF NEGATIVE POST-HYPNOTIC EFFECTS: RESEARCH HYPNOSIS, CLINICAL HYPNOSIS AND STAGE HYPNOSIS

Steven Jay Lynn, Eric Myer and James Mackillop

State University of New York at Binghamton, New York, USA

This commentary on a paper by Wagstaff (2000) focuses on the need to systematically study the nature, frequency and determinants of negative post-hypnotic reactions across diverse contexts (for example, hypnosis in research, clinical hypnosis and stage hypnosis), and highlights data collected in our laboratory with well-validated measures of positive and negative post-hypnotic experiences. The findings reviewed challenge the idea that hypnosis evokes more negative experiences than many other activities. The paper concludes with a discussion of issues and research questions pertinent to understanding not only negative post-hypnotic reactions but also the differences between hypnosis in research, clinical hypnosis and stage hypnosis.

In his paper entitled ‘Can hypnosis cause madness?’ Wagstaff forcefully disputes the claim that a person with no history of mental illness can develop schizophrenia following stage hypnosis. The impetus for Wagstaff’s consideration of this question was a High Court case in which the judge ruled against the plaintiff, who claimed that he developed schizophrenia after he was coaxed or persuaded against his will to volunteer to participate in a stage hypnosis show and was then placed in a trance and made to ‘perform humiliating and embarrassing activities of which he was not fully conscious, and which he would have resisted had he not been in this deep trance state’ (p. 97).

We are in complete agreement with Wagstaff’s cogent argument that there is no merit to the prosecution’s claim that hypnosis can evoke a psychotic-like state with neurological underpinnings similar to schizophrenia, and that hypnosis can, therefore, unmask schizophrenia in vulnerable individuals. However, as Wagstaff observes, the case does raise important issues about the status and dangers of stage hypnosis, as well as the dangers of hypnosis in general, which, we believe, merit more extended discussion in the commentary that follows.

We concur with Wagstaff that the proportion of individuals who experience serious sequelae of stage hypnosis is probably small. Yet it is also the case that negative after-effects have been reported by individuals who have undergone hypnosis in research, clinical hypnosis and stage hypnosis. To be more specific, a minority (8–49%) of individuals report mostly transient negative post-hypnotic experiences (for example, headaches, dizziness, nausea, stiff necks) in contrast with a much larger percentage (62–85%) of individuals who report positive experiences including relaxation (see Lynn, Martin and Frauman, 1996).

Our commentary will focus on the need to systematically study the nature, frequency and determinants of negative post-hypnotic reactions across diverse contexts (hypnosis in research, clinical hypnosis and stage hypnosis), and will highlight data we have secured (some of it not reported elsewhere) with well-validated measures of positive and negative post-hypnotic experiences that have some bearing on the case at hand.

The prosecution in the case Wagstaff describes seems to argue that negative post-hypnotic experiences are a function of a trance-state that somehow persists even after a hypnotic suggestion is cancelled or the stage hypnosis performance ends. Contrary to this position, the available evidence does not support the idea that negative post-hypnotic experiences are a byproduct of a trance-like state of consciousness unique to hypnosis. In fact, much laboratory-based evidence exists to the contrary, and implies that negative post-hypnotic experiences are no more common in hypnotic conditions than in non-hypnotic conditions.

Wagstaff cites research by Coe and Ryken (1979) and Page and Handley (1993) showing that the base rates of many negative post-hypnotic experiences (for example, depression, headache, nausea) do not exceed those of a variety of non-hypnotic situations (for example, attending a college class, 'college life in general', watching a film). However, these studies (see also Petersen, Coe, Crockford and Decker, 1991, for a replication of Coe and Ryken, 1991) can be faulted because they did not use well-validated measures of negative post-hypnotic experiences.

Brentar, Lynn and their colleagues attempted to remedy this state of affairs by devising measures that would: (1) contribute to systematic research on post-hypnotic experiences and permit an evaluation of the effects of diverse clinical interventions, inductions and suggestions, and (2) pave the way for research examining the relation between post-hypnotic experiences and the expression of diverse hypnotic phenomena (for example, age regression) that have historically been of interest to hypnosis researchers.

In their initial attempt to construct a scale, Brentar, Lynn, Carlson and Kurzhals (1992) developed a well-validated instrument (the Posthypnotic Experience Questionnaire, PEQ) using a combination of rational and empirical methods that included three subscales: (1) positive posthypnotic experiences, (2) negative experiences, and (3) unusual perceptual experiences. To study non-hypnotic experiences, the researchers removed all references to hypnosis. In one such non-hypnotic group, subjects were given the questionnaire following an introductory psychology class examination. A second group of subjects received the questionnaire following a 'body sensation' experiment in which they were informed that the experiment was designed to study their awareness of bodily sensations and experiences when they are sitting quietly with their eyes closed. Subjects focused on sensations in body parts that paralleled the body parts that are the focus of hypnotic suggestions. A third control group of subjects were given the questionnaire after sitting quietly in a classroom for 20 minutes with no special instructions.

In no case did the positive experiences reported by hypnotized subjects exceed the frequency of positive experiences reported by the sensation and control groups, although the examination group reported the lowest frequency of positive experiences. The frequencies of negative experiences were comparable across all four groups. Also, in no instance did the reports of unusual experiences in the hypnosis group exceed the reports of control subjects by more than a percentage point.

In subsequent refinements of this scale, a larger item pool was used and a reliable factor structure emerged with four types of post-hypnotic experiences: (1) pleasant, (2) somatic-kinaesthetic, (3) irritability/anger, and (4) anxiety. This more refined scale, the Posthypnotic Experiences Survey (PES, Brentar, Lynn and Carlson, 1992), was internally consistent and exhibited convergent and discriminant validity.

Sivec and Lynn (1993) administered the PES to participants after they had either received the Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A, Shor and

Orne, 1962) or participated in a 'body awareness' experiment in which they closed their eyes, relaxed and focused on body parts that paralleled that of the HGSHS:A, although hypnosis was not mentioned. Before receiving hypnosis or 'body awareness' instructions, participants received the PES with the word hypnosis deleted. Correlations between pre-hypnotic and post-hypnotic scores ranged between 0.64 and 0.62 for three of the subscales (pleasant, somatic-kinaesthetic, anxiety experiences), and 0.36 for the fourth subscale (irritability/anger).

Although participants reported more somatic-kinaesthetic experiences after hypnosis and 'body awareness' than before these procedures, no differences between hypnosis and the body awareness condition were evident, with respect to any type of experience, when initial ratings were statistically controlled. These findings imply that the timing of negative reactions may lead participants to misattribute negative post-hypnotic experiences to hypnosis rather than to what the individual 'brings to' the situation or to context-based expectancies. In fact, it would be reasonable to hypothesize that a variety of pre-hypnotic beliefs, experiences and cognitive predispositions, including negative expectancies about hypnosis, social anxiety and a prior history of negative post-hypnotic experiences, would increase vulnerability to current negative post-hypnotic experiences.

In the studies using the PES the relation between negative post-hypnotic experiences and hypnotic suggestibility was assessed. This is relevant to the present case in that Wagstaff writes that the prosecution contended that the alleged high suggestibility of the plaintiff was a significant factor in increasing his vulnerability to schizophrenia.

Contrary to this imputation, the PES studies cited above found that suggestibility was not related to reports of negative experiences after hypnosis. In these studies, measures of hypnotic suggestibility and rapport were associated with participants' reports of positive and perceptual-kinaesthetic hypnotic experiences. In contrast, negative experiences were not associated with suggestibility. Accordingly, there is no reason to believe that suggestibility increases vulnerability to negative post-hypnotic experiences.

The research we have reported pertains to hypnotic phenomena measured by conventional suggestibility scales. However, more recent studies conducted in our laboratory have used the PES to investigate more clinically relevant phenomena. Sivec and Lynn (2000a) assessed participants who were asked to recall their earliest childhood memories and memories of more recent events following hypnosis, progressive relaxation or a non-hypnotic interview designed to build rapport. After both the hypnotic and relaxation instructions, participants reported an increase in perceptual-kinaesthetic experiences. No such change was evident in the interview group.

All groups reported a significant increase in feelings of pleasantness and a decrease in feelings of anger and irritation following their recounting early and recent memories. The increase in pleasant experiences and the decrease in unpleasant experiences imply that talking about early and recent memories resulted in a type of 'cathartic' effect that enabled subjects to feel better after the procedures.

Sivec and Lynn (2000b) recently tested alert and hypnotized subjects' recall of early memories after they received age regression suggestions or were merely asked to recall early life events. Afterwards, hypnotized participants reported feeling more pleasant and greater perceptual alterations than their non-hypnotized counterparts. However, the hypnosis and awake groups were comparable in terms of irritability/anger and anxiety.

Taken together, the findings challenge the idea that hypnosis evokes more negative experiences than many other activities. Nevertheless, research is badly needed in actual clinical situations because existing data are largely anecdotal and based on poorly conducted surveys. Accordingly, it is hazardous to make definitive statements about the risk that hypnosis poses in clinical situations, independent of the pathology patients bring to the situation, and the fact that psychotherapy, in general, has been shown to elicit surprisingly high base rates of negative reactions (see Lynn et al., 1996).

It can be argued that there is an even greater need to study stage hypnosis. Although thousands of individuals participate in stage hypnosis performances each year, there are few systematic and no carefully controlled studies of stage hypnosis to date. Misconceptions about hypnosis, including fears about being controlled, fuel anxiety in some individuals, yet stage hypnotists, unlike clinical and research hypnotists, do little, if anything, to dispel common myths and misconceptions about hypnosis. As a rule, stage hypnotists exploit cultural misconceptions to enliven their acts.

Unlike clinical and research hypnotists, stage hypnotists do not provide accurate information about hypnosis, invite questions about hypnosis, secure informed consent, carefully monitor negative reactions, give 'permission' to terminate the procedures at any time, terminate the procedures if it is deemed necessary, or talk with any individual who wishes to do so or who seems uncomfortable after hypnosis (see Lynn et al.'s 1996 protocol for safeguarding experimental participants).

Unlike clinical hypnotists, stage hypnotists do not establish a positive rapport with the participant, weigh the pros and cons of hypnosis against alternative procedures, discuss the advantages and disadvantages of hypnosis, assess expectancies about hypnosis, tailor hypnosis protocols to the participant's goals and needs, screen out inappropriate candidates for participation, or ensure that the participant is fully 'dehypnotized'.

All of these failings, combined with the performance-related pressures and attendant anxieties that can accompany stage hypnosis (Wagstaff, 2000), would seem to place individuals who participate in stage hypnosis shows at increased risk for negative post-hypnotic experiences. Yet the fact of the matter is that little is known about the relatively long-term effects of stage hypnosis and the determinants of negative post-hypnotic experiences in this context.

Surely one of the most interesting questions is what role do the embarrassing and humiliating acts that individuals perform on stage, independent of hypnosis, play in engendering negative feelings? Conceivably, researchers, with the support of institutional review boards, could devise analogous non-hypnotic, performance-demand situations and compare participant reactions across hypnotic and non-hypnotic contexts. Relatedly, what is the effect of strong social pressures to volunteer to entertain a large audience of strangers, despite ambivalence and conflict about doing so? Does the common belief that hypnosis robs a person of willpower and control engender profound feelings of helplessness and fears of losing control in vulnerable individuals? Are certain individuals, such as those who are socially phobic or extremely shy and self-conscious, particularly at risk in such situations? What is the effect of the audience's and friends' behaviour, both during and after the show, on performers' attributions of their experiences?

It is no doubt tempting for members of the hypnosis community to decry stage hypnosis and to go so far as to lead concerted efforts in local communities and beyond to ban it. Surely it is unethical practice for psychologists to conduct such

shows, even though we are aware of some psychologists who do so. However, any attempts to educate the public should be founded on well-designed studies that can lay the true risk of stage hypnosis bare and convince the public and the scientific community that stage hypnosis is not all 'fun and games'. Unfortunately, given the current state of the science on this topic, stage hypnotists may well continue to exploit the public ignorance about hypnosis for the foreseeable future.

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Address for correspondence:

Steven Jay Lynn, PhD

Psychology Department,

State University of New York at Binghamton,

Binghamton, NY 13902,

USA.

Email: slynn@binghamton.edu