Article

Hypnosis and posthypnotic suggestion:

exploding myths and maximising effects

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For the past eight years I have been involved in research investigating the nature of hypnosis. Hypnosis is a procedure during which one person ("the hypnotist") suggests that another ("the subject") experience changes in sensations, perceptions, thoughts, or behaviour. People respond to hypnosis in different ways and some people are more responsive than others. For those who can respond, they typically report compelling and subjectively genuine hypnotic experiences, which are often bizarre, highly personal, and inconsistent with objective reality. Despite the somewhat unusual nature of these experiences, researchers in the field generally agree that hypnosis can be explained in terms of relatively well-understood cognitive and social psychological processes.

Although most people have been exposed to a great deal of 'popular' information about hypnosis from television shows, movies, books, and stage performances, they are rarely exposed to the large body of experimental research on the nature and parameters of hypnotic suggestion and experience. It is not surprising then that most peoples' ideas about hypnosis are based on popular myths and misconceptions. For instance, many people believe that hypnosis can be used to control their behaviour, that hypnotic experiences are mysterious and bizarre, and that the ability to experience hypnosis depends on the expertise of the hypnotist rather than their own ability.

Together with colleagues in the School of Psychology at the University of New South Wales, my research aims to examine the empirical foundation for some of these beliefs and to generate data that allows conclusions to be drawn about the mechanisms underlying hypnotic behaviour and experience. That research has focused on a range of issues, including, for instance, the impact of hypnosis on memory and the construction of false memories, the hypnotised individual's experience of hypnotic phenomena, and the use of hypnosis to understand clinical phenomena such as delusions. However, the area in which I have been most interested in recent years is posthypnotic suggestion.

A posthypnotic suggestion is a suggestion given during hypnosis that asks the hypnotised person to have a particular experience or show a particular behaviour after hypnosis, and usually in response to a specific cue. For example, the hypnotist might suggest to the hypnotised subject that they will rub their right ear lobe when the hypnotist says "Well, what did you think of that?" after hypnosis. Typically, if the person is highly hypnotisable they will rub their ear lobe when they hear those words. Although this is a somewhat trivial example, posthypnotic suggestions can range from the very simple to the very complex. For instance, in 1889, Liégeois reported a successful posthypnotic suggestion that involved a visual hallucination of a dog with a monkey on its back coming into the room, followed by a gypsy and a large, tame, dancing, American bear.

Posthypnotic suggestion was first identified by Mouilleseaux in 1787 as one of the essential "magnetic" phenomena (ie, in the context of animal magnetism and Mesmerism). It has continued to be a source of fascination across the history of investigation into hypnosis, because of both its theoretical importance and its utility in the clinical setting. Posthypnotic suggestion has been used very successfully to treat a range of psychological and medical problems, including insomnia, hypertension, anxiety, phobias, chronic pain, and obesity. In fact, a recent metaanalysis indicated that the addition of hypnotic or posthypnotic techniques to cognitive - behavioural therapy substantially enhances treatment outcomes; in particular, the average client receiving hypnotic treatment showed greater improvement than at least 70% of clients receiving nonhypnotic treatment.

Posthypnotic suggestion contains the two elements central to traditional notions of the impact of a hypnotic suggestion: first, the individual appears to experience an overwhelming compulsion to perform the behaviour; and second, they show a relative lack of awareness of the source of motivation for their behaviour. Based on these characteristics, posthypnotic responding has generally been explained in both the professional and popular literature in terms of an unconscious, irresistible urge or impulse to carry out the suggested response. In particular, it has been assumed that posthypnotic suggestions can be used to control behaviour, that individuals cannot resist responding to them, and that their effects will last indefinitely unless the hypnotist cancels them. Despite the widespread acceptance of these views, surprisingly little empirical research has focused on posthypnotic suggestion in recent years and the last major theoretical review of posthypnotic suggestion was published in the late 1960s.

Accordingly, for my doctoral research I conducted a series of nine experiments that investigated the nature of posthypnotic suggestion and responding. The aims of my research were:

(1) to develop a model of posthypnotic suggestion and responding that would integrate the findings of present and past research;
(2) to provide a framework for future research and clinical applications of posthypnotic suggestion; and
(3) to provide empirical evidence relevant to popular beliefs about posthypnotic suggestion.

The first five experiments in my research programme

explored the factors that influence posthypnotic suggestion and responding, including the focus of the suggestion, the way in which the response is tested, the role of amnesia in responding, and the cancellation of the suggestion. For instance, in one experiment, participants were given a posthypnotic suggestion that either did or did not specify how long responding should continue, and their response was tested four times. Those who were given a suggestion that included information about how long they should respond were more likely to continue responding across the tests than those who were given a suggestion that did not include this information. In other words, when people perceived that they were not expected to continue responding, they stopped, whereas when they perceived that they were meant to continue responding, they did so. This finding contradicts the popular myth that if a posthypnotic suggestion is not cancelled by the hypnotist, then it will endure beyond the time and setting in which it was administered. Rather, hypnotised people only respond for as long as they think is required or is appropriate.

Experiments 6 and 7 investigated the individual's experience of posthypnotic responding. For instance, in one experiment, people were told prior to hypnosis that posthypnotic suggestions are always carried out with their dominant hand, but then during hypnosis they were given a posthypnotic suggestion to carry out a particular behaviour with their nondominant hand; in other words, the posthypnotic suggestion conflicted with the information given prior to hypnosis. Despite reporting the need to decide which response was appropriate, all of the participants responded on the basis of the second, hypnotic message and used their nondominant hand. This indicated that they held particular expectations about the conduct of an hypnosis session and the way in which they should respond, and that they worked actively to interpret the conflicting messages given by the hypnotist. This finding contradicts the popular myth that individuals cannot resist a posthypnotic suggestion and will respond automatically and without awareness to whatever the hypnotist says. Rather, my work shows clearly that hypnotised individuals engage in active decision-making in order to interpret the messages they receive during hypnosis and then respond in an appropriate way.

The final two experiments investigated posthypnotic responding away from the experimental setting. For instance, in one experiment, high and low hypnotisable people (note that the lows were asked to fake hypnosis) were given a posthypnotic suggestion to send one postcard every day to the hypnotist until she contacted them again. In addition, a group of nonhypnotic, 'control' participants were given a simple request to carry out the same task. The hypnotist contacted participants approximately eight weeks later. Some people continued to respond, away from the influence of the laboratory and the hypnotist for up to eight weeks. Also, whereas low hypnotisable, faking, people sent far fewer postcards than high hypnotisable people, the control participants who were simply asked to carry out the task sent as many postcards as high hypnotisable participants. This finding contradicts popular myth that posthypnotic suggestion is a particularly effective means of controlling an individual's behaviour. Rather, a posthypnotic suggestion is no more effective in eliciting a behaviour than a simple, nonhypnotic request to carry out the task.

The findings from my research indicate that hypnotised individuals place meaning on the communications of the hypnotist, and look to the specific features of the posthypnotic suggestion and test to guide their responding. Contrary to popular belief, they do not respond to a posthypnotic suggestion automatically or in a 'robotic' fashion, nor are they totally unaware of the reasons for their behaviour. Rather, high hypnotisable individuals put considerable thought and effort into interpreting the 'meaning' of a posthypnotic suggestion, and attempt to respond in a way that is appropriate to the situation in which they find themselves. The fact that they are able to do this, while maintaining a compelling and compulsive personal experience highlights their special individual abilities, rather than the power of the suggestion or the hypnotist.

Although my research, in some sense, 'exploded' myths about hypnosis and posthypnotic suggestion, it also offered ways for maximising the effectiveness of these techniques when used by health care professionals to treat psychological or medical problems. In particular, my research suggests ways to make a posthypnotic suggestion more powerful and last longer. For instance, in a number of experiments both inside and outside the laboratory, I found that people who were given a suggestion that included information about how long they should respond were more likely to continue responding over time than those who were given a suggestion that did not include this information. One possibility is that clients who are given, in the context of a clinical treatment program, a posthypnotic suggestion that includes very specific information about how long it will last, may continue to experience positive effects far longer than clients who are given a suggestion that does not include such information. In my research, I also found that individuals who were most successful in responding to the posthypnotic suggestion to send postcards were more likely to have integrated the task into their daily lives; in particular, they described receiving a great deal of support and encouragement from their families. Those who were less successful in this task were more likely to have kept the task secret from their friends and families or to have experienced negative responses to their participation. One implication of this finding is that clinical posthypnotic suggestions (eg, to stop smoking or to control poor dietary habits) may be more successful if the client is encouraged to integrate the suggested behaviour into their daily lives and if family and friends encourage and reinforce the desired response. These are issues for future research.

I am continuing to investigate aspects of hypnosis. Currently, I am in the initial stages of a project focusing on autobiographical memory and amnesia as it relates to recovered/repressed memory, and I am using hypnosis to assist me in that investigation. Like posthypnotic suggestion, this topic is both conceptually and empirically difficult to investigate and is widely misunderstood and misrepresented. However, I am confident that a scientific and critical approach to such phenomena can generate novel and important findings.