

## DISCUSSION COMMENTARY

### DECONSTRUCTING HYPNOSIS: A GENERATIVE APPROACH TO THEORY AND RESEARCH

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Theodore X. Barber has been thinking, writing and collecting data about hypnosis in a provocative and stimulating way for more than 40 years. He began his career as an iconoclast, critical of the ways in which the concept of hypnosis had been used, both descriptively and as an explanation for the diverse and baffling phenomena that were subsumed by that label (Barber, 1959, 1960; Barber and Glass, 1962). He distanced himself from the traditional use (and users) of that concept by enclosing it in quotation marks (for example, Barber and Calverley, 1966). This action troubled many people, who interpreted it as reflecting a cavalier, dismissive attitude about the entire field. That view became increasingly untenable as Barber's systematic research efforts unfolded, examining hypnotic behaviour with unprecedented care and demonstrating that many widely held assumptions about hypnosis were either incorrect or incomplete.

During the initial phases of Barber's career, he contributed a substantial number of pioneering investigations that covered almost the entire array of hypnotic phenomena, ranging from pain management to delusions and hallucinations, and extending to the assessment of hypnotic responsiveness in schizophrenia (Barber and Calverley, 1969; Barber, Dalal and Calverley, 1968). Along the way, he developed his own assessment tools, where needed, such as the Creative Imagination Scale (CIS) and the Barber Suggestibility Scale (BSS), intended to compensate for weakness in existing measures that were predicated on traditional assumptions about the nature of hypnotic phenomena (Barber and Wilson, 1978).

Many of Barber's early papers contained the term 'theory' in their titles (for example, Barber, 1959, 1964; Barber and Calverley, 1964; Barber and De Moor, 1972). Clearly, he wanted to establish a limited set of explanatory principles that were of sufficient power and generality that they could encompass all of hypnotic behaviour. That meant that it was important, initially, to determine the real nature of hypnotic behaviour. Was it true, for example, as Erickson (1938a,b) had insisted, that hypnotic suggestions produced profound neurophysiological alterations that could not be distinguished from their non-suggested counterparts? Barber's efforts to sort out what it was that theories of hypnosis really had to explain dominated his early work. Along the way he made some efforts at theory construction. Characteristically, his approaches to theory construction kept him close to the data and were typically deconstructive and analytic rather than inductive and synthetic. Unlike alternative formulations, such as neodissociation theory (Hilgard, 1973, 1991), there were no hypothetical constructs of comparable sweeping generality invoked to explain the observed phenomena. It almost seemed, at times, that there was some reluctance to deal to any great extent with the cognitive underpinnings of hypnotic behaviour.

It was left largely to others to develop and refine some of these themes. There were also occasional efforts to seek a theoretical rapprochement with proponents of traditional hypnotic state theory (Spanos and Barber, 1974), but there remains serious division about how successful these efforts were (Kirsch and Lynn, 1995; Chaves, 1997; Kihlstrom, 1997).

Now, Barber has promulgated a three-dimensional theory of hypnosis (Barber, 1999), which reflects what he describes as his mature view of hypnosis and it behooves us all to take a serious look at this new model. In a sense, the new model proposes basically that all of the major approaches to the topic of hypnosis have been correct, at least in part. The differences that have emerged, between those of competing theoretical persuasions, are seen as more apparent than real, and are attributed to the fact that each has been making inferences drawn primarily from distinct and fundamentally different subsets of excellent hypnotic subjects.

The theory starts from the premise that there are three distinct types of excellent hypnotic subjects and that the remarkable abilities of these subjects rests on their classification as fantasy-prone, amnesia-prone or positively set to respond to hypnotic suggestions. The evidence supporting these distinct classes of excellent hypnotic subjects derives from the work of several different investigators (for example, Wilson and Barber, 1981, 1983; Lynn and Rhue, 1986, 1988; Barrett, 1991, 1996).

The fantasy-prone subjects were first described by Wilson and Barber (1981, 1983) and confirmed by Lynn and Rhue (1986, 1988) and by Barrett (1991, 1996). These remarkable subjects seem to experience their fantasies as 'real as real' (Barber, 1997: 8) and seem especially responsive in the physiological domain. However, as Lynn and Rhue (1988) have noted, the correspondence between fantasy-proneness and hypnotizability may be more limited than has been supposed, a fact that Barber (1997) attributes to negative attitudes or expectancies towards hypnosis or to poor rapport with the hypnotist. These hypotheses need to be examined carefully and confirmed in future research.

Evidence for the amnesia-prone subjects has been derived largely from Barrett's work (1991, 1996). Amnesia-prone subjects (15 out of 1200 subjects) seemed to be much more likely than other subjects to display spontaneous amnesia for events during the hypnotic session. Moreover, their amnesic responses to suggestion seemed to better withstand efforts to breach amnesia than those of other subjects. They also seemed to have higher levels of forgetfulness about other aspects of their lives, especially early life experiences. Interestingly, some of the anecdotal accounts of hypnotic analgesia that appeared in the 19th century include remarks to the effect that patients seemed to have spontaneous amnesia for the surgical procedures themselves, as well as being refractive to the pain (for example, Delatour, 1826; West, 1836). Indeed, their analgesia seemed to have been secondary to their amnesia.

The final subset of good hypnotic subjects are those who have been the focus of much of Barber's earlier research, the highly motivated, positively set individuals, who seem capable of responding, both objectively and subjectively, to the wide range of suggestions that are typically associated with hypnosis. Although these individuals are neither fantasy-prone nor amnesia-prone, they seem capable of experiencing profound changes in subjective experience when these are suggested to them. While the right kinds of training procedures seem capable of producing these kinds of good hypnotic subjects (Spanos, Warnock and de Groot, 1990; Spanos, Flynn and Gabora, 1993), it is not clear that any training protocol could produce the other two types.

Barber (1999) contends that the identification of these three distinct subtypes of excellent hypnotic subjects is corroborated by Pekala's (Pekala, 1991; Pekala, Kumar and Marcano, 1995) work using cluster analysis. However, Pekala's (1991) study included subjects with a wide range of hypnotic ability and did not include very many amnesia-prone subjects, who by Barrett's estimates (Barrett, 1991, 1996) seem to be rare individuals. In spite of the large number of subjects involved, clearly more data are needed from studies that focus on the highly hypnotizable.

Performance of the three subtypes of hypnotic subjects is also thought to be influenced by a group of three additional variables: (a) the social-psychological dimensions of the psychological experiment itself, (b) the hypnotist-subject relationship, and (c) the effects of suggestions per se. Importantly, these three classes of variables may interact with hypnotic subtype to produce differential effects. Thus, for example, suggestions for 'blocking out' unpleasant sensations, memories and so on, may have a more profound impact on amnesia-prone individuals than on the other types. Although data pertaining to the important effects of these variables in hypnosis research have been available for some time (Barber, Spanos and Chaves, 1974), Barber's proposal that their effects interact with hypnotic subtype is new, and should generate some interesting research.

Barber's earlier work on hypnosis has proven to be remarkably successful in generating research over the past 40 years. Subsequent generations of researchers have developed productive careers following the theoretical and methodological guides provided by Barber's ideas. The research and clinical implications of his most recent formulation remain to be worked out. Nevertheless, it seems fairly clear that these ideas will have enormous heuristic value and will generate much interesting research. Certainly the limits of the performance capabilities of the amnesia-prone and fantasy-prone subjects need to be more fully explored in methodologically rigorous ways. The relative rarity of these two types will pose a logistic challenge for hypnosis researchers. Nevertheless, we certainly need to enhance our understanding of the variables that lead to the development of these capabilities and to have a better understanding of the cognitive mechanisms that underlie their extraordinary abilities.

In addition, our understanding of the complex interplay between psychological and physiological events evidenced in these individuals may provide new insights into the mechanisms that might be important in enhancing control of our bodies in health and disease. It may also advance our understanding of the mechanisms underlying pain control as well as other psychophysiological phenomena. That is not to say that we have learned all that we need to from the excellent hypnotic subjects whose response is related to having a positive set. Indeed, we need to find more effective strategies to distinguish the merely compliant from those subjects who can learn to produce the various subjective phenomena that are called for when suggestions are administered.

Whether or not this new conceptualization should be viewed as a paradigm shift can be debated. The term 'new paradigm' has come a long way since Kuhn (1962) first discussed it. Indeed, its use has become so commonplace that it has become a bit of a cliché, which by Kuhn's own estimates has been used in 22 different ways (Cohen, 1999). Perhaps the newly emerging concept of 'disciplinary matrix' better captures what has been shifted in Barber's new proposal.

In any case, there is little doubt that Barber's contributions continue to shape profoundly how we all understand and think about questions about the nature of hypnotic phenomena. We owe him a debt of gratitude for once again pointing us in a

direction that promises to generate a lot of interesting research. His new formulation shares with his previous efforts that it raises at least as many interesting questions as it resolves – what more can we ask?

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