DIALOGICAL COMPONENTS IN THEORY-BUILDING: CONTRIBUTIONS OF HILGARD, ORNE AND SPANOS[1]

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Abstract

Taken together, the abundant contributions of three recently deceased members of the hypnosis research community constitute a deferred dialogue. The dialogical format is that of advancing a claim that is answered by a counter claim supported by research and/or logical argument. Central to the dialogue is the degree of credibility to assign to subjects' self reports of their experience during hypnotically-induced analgesia, amnesia, and hallucinations. The epistemological subtext of the dialogue centers on whether the counterexpectational behaviours of hypnosis subjects are to be construed as *happenings* or as *doings*. An analysis of the dialogue suggests that future researchers take as their point of departure the construction that the hypnosis interaction is a conversation.

A few years ago, I was a participant in an APA symposium for which I had prepared a detailed argument supporting my claim that a viable theory of hypnosis required no constructions other than those employed to account for any social psychological phenomenon. After we had concluded the symposium, one of the other panellists–an advocate of the special state explanation–scolded me for reducing the dramatic counter-expectational conduct of hypnosis to the bland categories of social psychology, thereby raising doubts among potential patients or clients as to the authenticity of hypnosis as a therapeutic tool. My response to his rebuke was to refer him to one of the canons of the scientific enterprise, namely, to make public–usually through books and journal articles–empirical data and/or logical arguments to support a claim. Not intimidated by his challenge, I then gave my co-panellist a brief lecture on the dialogical nature of the scientific enterprise, the gist of which was that science progresses through dialogical exchanges of claims and counterclaims. The dialogue continues until unsupported claims are discredited.

Anyone familiar with the history of hypnosis will recognize the dialogical nature of efforts to understand the conduct that is subsumed under the label of hypnosis. Our history books record the extravagant claims of Mesmer and the more tempered counter-claims of the Franklin Commission. We had the neuropathological claims of Charcot and the more psychological counterclaims of Liebault and Bernheim, and so on, to the present day. It is my purpose to employ the dialogical theme in discussing the work of three recently deceased contributors, Ernest Hilgard, Martin Orne, and Nicholas Spanos. This is not intended as a eulogy, but as an appreciation for their dedication to the ideals

of science. In publishing their observations and theoretical statements, they created a kind of deferred dialogue. Other participants entered as additional dialogue partners. They were enacting their roles as scientists, employing the rhetoric of science–experiment, argument, demonstration, and narrative. Each made claims that entered the literature. Each accepted the other's observations as valid but offered different hypotheses to account for the observed phenomena. In this way, they became co-actors in an ongoing historical narrative, their agreements and disagreements influencing the direction of subsequent theoretical and empirical work.

It would be impossible in this limited space even to summarize the extensive contributions of these scholars. I hope I can do justice to an account of the theoretical underpinnings for their multiform contributions. At the same time, I will comment briefly on their personhood–I knew them well, having engaged in numerous head-to-head colloquies over many years.

Martin Orne began publishing in the late 1950s. He was not a single issue scientist. Among other things, he contributed significantly to the field of forensic psychology, to understanding the parameters of sleep, to mapping the field of pain control. He was a most generous man both in his everyday dealings with others and in his explicit recognition of the contributions of others. He was a gifted conversationalist. No one could spend an evening with him without coming away with some intellectual benefits. He began his career when hypnotism was still perceived as a special state of mind by the general public and by many credulous[2] professionals. In the public's view, hypnosis was associated with magic, with providing subjects with special powers, with making it possible for subjects to transcend the limits of strength, memory, and perception. At the same time, a small band of investigators were working from a sceptical perspective: that the claimed dramatic effects attributed to hypnosis could be achieved without the use of a hypnotic induction. In this milieu, Martin Orne began his work with the goal of making the study of hypnosis a scientific enterprise. He completed his doctoral dissertation under the direction of the late Robert White, who had written a seminal article in 1941, the gist of which was that the phenomena of hypnosis could be attributed to goal-directed striving and included a proviso that the goal-directed striving could produce an altered state of consciousness. Orne elaborated this model, demonstrating that hypnosis subjects were not automata, that they were influenced by multiple contexts, but there was something special, an essentialist feature, that superceded the goal-directed striving. His belief was founded in part on the observation of experimental subjects' attribution of 'reality' to their contrafactual and counterexpectational experiences. Although there were other voices, the dialogue was carried on in the 1950s and 1960s by Orne, on the one hand, and Theodore Barber (1960) and myself (1950) on the other. Barber and I shared the same sceptical views, although our writings employed different vocabularies. He referred to his orientation as cognitive-behavioural, in general employing the rhetoric of experimental psychology. I found more useful the language of social psychology, specifically role theory, assimilating the conduct of hypnosis subjects to dramaturgical categories. The diacritical component of the theory was role-enactment.

In an effort to demonstrate that hypnosis was more than the enactment of a role, Orne performed an unusual experiment. He tested the claim that he could differentiate genuine hypnosis subjects from subjects who had been instructed to pretend to be hypnotized, that is, to play the role, to simulate the actions of hypnosis subjects. He referred to the

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[2] Following the lead of Sutcliffe (1960) I am using 'credulous' and 'sceptical' to identity two broad classes of theoretical statements.

simulators as a quasi-control group, they were subjects who had low or zero scores on hypnotizability scales in contrast to the genuine subjects who had high scores. Other members of his team administered the hypnosis and role-playing instructions. To his surprise, his accuracy rate in identifying which subjects were genuine and which were pretending was no better than chance. Undeterred by this demonstration, the results of which were contrary to his claims, he and his associates engaged in a series of studies to uncover the subtle characteristics that would differentiate the genuine subjects from the simulators. In the founding experiment (Orne, 1959), the task for the subject was to make sense of a problematic perceptual situation. One sense-making solution was to report a visual hallucination; that is, reporting seeing something that was not there. In analysing the verbal reports of the two classes of subjects, Orne concluded that some genuine subjects solved the anomalous situation through the use of 'trance logic', a form of reasoning that violated the rules of ordinary logic. They appeared to tolerate the ambiguity of the test situation. In addition, he interpreted the subjects' verbal reports as indicating that they assigned a high degree of credibility to their hypnotically-induced hallucinations. Orne claimed that to the subject the hallucinated object was 'real', a claim that he advanced to support the theory of a special state. Orne and I had several head-to-head dialogues on this issue. Our dialogues centred on the meaning of the specific behaviours that he called instances of trance logic, attributable – in his view – to changes in the cognitive apparatus. He accepted the claim that hypnosis could be construed as role enactment, but he maintained that the subjects' claim for 'reality' for their experiences required an additional explanatory category.

My contribution to the dialogue, later elaborated by Spanos (1986), Chaves and Barber (1974), Coe (1980) and others, was that the subtle differences in the behaviour of the two types of subjects could be attributed to the fact that the simulators were given instructions to engage in a deceptive performance, in short, to lie. Thus the overall social psychological context was markedly different from the instructions given the hypnotizable subjects who were not told to lie. The specific instructions to 'pretend' provided the simulators with the basis for employing different epistemological and dramaturgical strategies from those used by the genuine subjects.

In reviewing the corpus of Orne's work, one cannot help but notice an irony reflected in the apparent contrast between his credulous position in regard to the special state hypothesis and his arguments and demonstrations of the social psychology of the experimental situation. In 1962, he published a classic paper the title of which was: 'On the social psychology of the psychological experiment. With special reference to demand characteristics and their implications'. Probably stimulated by his recognition of the importance of context in understanding the counterexpectational conduct of hypnosis subjects, he cautioned investigators that human subjects in psychological experiments are not decerebrate specimens. They are responsive to the subtleties of the experimental situation, and they come into the laboratory with variable motivations, interpersonal skills, politeness norms, curiosities, attitudes, values, and even specific hypotheses about the goal of the experiment. These properties are not deposited at the entrance to the laboratory before the subjects take part in an experiment. Orne saw these contextual variables as 'demand characteristics', they can influence the outcome of any social psychological experiment, not only hypnosis experiments. I made use of a similar construction, 'role demands', in my contribution to the dialogue.

I should add that no one has been more cautionary than Martin Orne about the potential harm in assigning truth-value to the claims of people whose rememberings were constructed in therapy encounters that included hypnosis procedures. From his

experiences with countless subjects, he was convinced that the accounts of their experiences as 'real' (to use Orne's term) were instances of assigning credibility to their *imaginings*, not to actual historical events. The harm done by false memories given the warrant of truth by misguided therapists has been documented many times over (deRivera and Sarbin, 1998). As a concerned scientist, Orne was instrumental in helping establish the False Memory Syndrome Foundation, an organization that provides help to families disrupted by false memories.

Hilgard entered the dialogue rather late in his career. At age 55, he had already established himself as an expert in the field of learning and conditioning, had served as president of APA, had received many honors and awards for his achievements, and, by any measure, was a leader in American psychology. He established a hypnosis laboratory at Stanford in the 1950s–and over the next 30 years he and collaborators, including his wife Josey, contributed a large number of papers and books. He was universally liked and admired. He would go out of his way to help a student or a colleague. In the early 1960s, when I had discontinued my laboratory in order to work in other areas, Hilgard warmly welcomed three of my Berkeley graduate students into his Stanford seminars. In our head-to-head colloquies he was quick to see points of correspondence. He was respectful of other contributors, even if they were challenging his theories. His disagreements with dialogue partners were always expressed with civility and grace.

In establishing his laboratory, one of his first acts was to recruit Andre Weitzenhoffer, an advocate of the special state hypothesis, as a co-worker. To provide a degree of precision to their studies, their first task was to build a scale of hypnotizability. As a beginning, they modified the scale published by Friedlander and Sarbin (1938) some 20 years before. (This is an example of deferred dialogue, and also illustrates the cooperative nature of science. In constructing their scale Friedlander and Sarbin had incorporated items from two scales that had been published a decade earlier.) As research progressed, the Stanford group developed additional scales to assess different aspects of responsiveness to suggestions.

Hilgard regarded the study of pain control as a royal road to understanding the essential nature of hypnosis (Hilgard, 1967, 1973). He devised special methods for assessing the subjective experience of induced pain in which the experimental subjects immersed the forearm in ice water, or were subject to ischemic pain produced with a tourniquet above the forearm. The first studies demonstrated clearly an increase in the reported pain tolerance of hypnotized subjects. In the ensuing dialogue, other researchers made the counterclaim that coping strategies, such as attending to distracting stimuli, relaxing, assigning unique meanings to the felt pain, were instrumental in increasing pain tolerance (Chaves and Barber, 1974; Chaves and Brown, 1987).

Participants in the dialogue noted that the initial research confounded hypnotic procedures with suggestions to employ coping strategies. In the next phase of the dialogue Hilgard developed a two-factor theory that embraced coping strategies as a component of the analgesic response and hypnotic instructions as another component in raising pain tolerance levels. He regarded the second factor as more important because it signaled the activation of a dissociative process, a process that was not unique to hypnosis. The major thrust of his subsequent work was dedicated to affirming dissociation as the preferred explanation for the counterexpectational and contranormative behaviours that were identified as the criteria for hypnosis.

In the course of the analgesia studies he introduced, originally as a metaphor, the idea of the hidden observer. Some analgesia subjects, when instructed that another part of the mind functioned as a hidden observer, reported that they experienced higher degrees of

pain than they had reported under the condition of hypnotically-induced analgesia. Soon after he had announced the conception of the hidden observer, the metaphor was reified. As is the case with many metaphors in psychology, enthusiastic advocates of the special state hypothesis cast aside the metaphorical moorings, the hidden observer being regarded in much the same way as a cranial entity. Hilgard expressed disapproval with the reification and in one article indicated that it was not a well-chosen metaphor (Hilgard, 1992).

The observation that some subjects reported less pain tolerance in the hidden observer phase of the experiment was instrumental in Hilgard's further elaboration of the concept of dissociation. Using the language of divided consciousness, he argued that under special conditions, autonomous cognitive systems could be separated by a postulated amnesic barrier. The notion of the hidden observer created opportunities for additional dialogue. In one dialogical exchange, I claimed that Hilgard's assertion to the subject that one's mental apparatus housed a hidden observer could have influenced the subject to adopt an alternative epistemology. I suggested to Hilgard that he entertain the possibility that the subject's initial pain reduction response could have been the result of the use of coping strategies. The verbal response that implied an effect of the induction could have been influenced by the role demands. In short, the verbal response concealed a deception that was kept secret until given permission, as it were, to reveal the deception in the hidden observer phase. Hilgard found my alternative interpretation less than convincing, my social psychological notion of secrets came from a universe of discourse not compatible with the quasineurological language of cognitive structures and dissociation.

Nicholas Spanos was the most frequent contributor to the dialogue that centred on Hilgard's claim that the dissociation hypothesis accounted for the hidden observer phenomena. In fact, even before the hidden observer research appeared in print, Spanos initiated a programme of experiments to demonstrate that the special state interpretation could not be sustained (Spanos, 1983). In addition, he entered into a deferred dialogue with Martin Orne and other researchers on their claims about the influence of hypnotic suggestions on amnesia and on trance logic issues (Spanos, 1986).

One could describe Spanos as high-spirited, fun-loving, and adventuresome. The carefree social persona contrasted markedly with the seriousness with which he undertook his scientific and scholarly work. He piloted his own single engine airplane. His life ended at age 52 when his plane crashed on takeoff. In his short career, he published over 250 articles, chapters, and books. Most, but by no means all, dealt with issues related to the validity of claims advanced by Orne and Hilgard and other advocates of the special state hypothesis. His last work was a book exposing the logical fallacies and therapeutic failure of professionals who rationalize their diagnosis of multiple personality with constructions that depend upon uncritical acceptance of repression and dissociation doctrines (Spanos, 1996).

What makes Spanos' contributions of special interest is the root metaphor that guided his work. Unlike Orne and Hilgard who worked from the mechanistic root metaphor, Spanos proceeded from the root metaphor of contextualism. From our present perspective, it is clear that the central categories advanced by Orne and Hilgard emerged from the traditions of mechanistic science with its emphasis on the search for causality within the organism. Spanos sought understanding from the perspective of the person as a performer, recognizing the importance of remote and near effects of historical, cultural, and social contexts. He made use of a distinction that I had earlier introduced into the dialogue: *doings* and *happenings*. He worked from the postulate that responses to

suggestions are agentic, not automated happenings attributable to some mental force or neurophysiological anomaly. Advocates of the special state hypothesis, including Hilgard and Orne, regarded the diacritical acts of hypnotized persons as *happenings*, as events not under the agency of the subject. *Doings*, on the other hand, are performances, voluntary acts. To be sure, doings may generate happenings as side effects, as when a person throws a ball (a doing) and, as a result, action currents (happenings) can be measured in the biceps muscle. Similarly, *imagining* throwing a ball is also a doing, and action currents are also generated under these conditions. As Spanos critically examined the claims of hypnosis subjects and of contributors to the scientific dialogue (experts such as Orne and Hilgard,) he concluded that the search for mechanistic causality inside the head of the subjects was futile. It is interesting to note that he first labeled his approach 'cognitive-behavioural' so that readers would understand that his perspective was an alternative to the theories advanced by special state advocates (e.g. Spanos and Chaves, 1989). Somewhat later, he used the label 'socio-cognitive', and still later 'social psychological', reflecting a more explicit recognition of the social nature of hypnotic performances. Central to his contribution to the continuing dialogue was the emphasis on social process rather than the encapsulated individual as a vehicle for purported cognitive structures.

Coda

The dialogue continues. In examining the present status of research in the field of hypnosis it is evident that the data of interest are no longer the rigidities, catalepsies, feats of strength, and alleged neurophysiological, but rather the *phenomenal experience* of the subject. (Using imaging techniques, some credulous investigators have located the cause of hypnosis behaviours in the cranium, ignoring potential artifacts produced by manipulating attention.) The dialogue will continue because we have not found a common language to describe the multi-dimensioned complexities of experience. To assess the nature of the experience, we have had no alternative but to rely on subjects' verbal accounts of pain, hallucination, amnesia, or whatever. No one would disagree that the experience and the report of the experience are not isomorphic. When, for example, the subject reports the transparency hallucination, 'I see the chair through the transparent body of Mr X', what interpretation should the observer place on the word 'see'? *The Oxford English Dictionary* lists scores of meanings for the verb 'to see', many of them only metaphorically related to the notion of veridical visual perception. For example, when a subject is imagining a counterfactual object, he or she can elide a metaphoric statement 'It is *as if* I see pink elephants' to 'I see pink elephants'. My point here is to identify the problematics inherent in treating the self-report as a veridical mirror of the phenomenal experience. Of course, for some purposes of ordinary social conversation self-reports can be taken as a rough approximation. The scientific observer, however, will take the protocol statement only as a point of departure for constructing meaning, taking into account particular social and linguistic contexts.

   In a previous paper, I made the recommendation that the hypnosis interaction be regarded as a conversation (Sarbin, 1997). In the traditional hypnosis setting, the experimenter converses orally, the subject in turn responds both in the oral and the nonverbal modes. The conversation idiom applies especially to the subject's oral contribution to the conversation. We interpret everyday conversations from the perspective of multiple layers of meaning, why not the conversation between the experimenter and the subject? In ordinary conversation, we automatically want to know what are the intentions of the

dialogue partner that are not revealed in the literal meanings. It is reasonable to suppose that subjects in hypnosis experiments are also curious about the intentions contained in the contranormative and contrafactual aspects of the induction. The conversation of the hypnotist, like all conversations, has a subtext. One possible subtext is a veiled request for the subject to engage in a miniature drama. If the subject entertains such an inference, then we can expect him or her to enact the roles called for in the conversation. Some years ago, I reported a semantic differential study that showed that 'good' hypnotic subjects interpret the subtext of the typical hypnosis induction differently from 'poor' subjects (Sarbin, 1964). The meanings attributed to the induction sentences were consistent with the hypothesis that the induction ritual was an invitation to enter a make-believe world.

As in any conversation, the content of the self-report is fashioned by rhetorical features, metaphors, metonymies, withholding secrets, by intentions to deceive, even by self-deception. Heretofore, experimenters have been content to accept the self-report of subjects as a veridical account of their phenomenal experience. We are at the threshold of an era when the self-report of experience can be examined in microdetail. Microanalysis has proven very productive in understanding emotional life episodes (Katz, 1999). Current methods of discourse analysis (see, for example, Wood and Kroger, 2000) can be applied to the subject's account of his or her experience. Microanalytic studies would help settle questions about how to interpret the subject's account of his or her experience.

The scientific dialogue has been in progress for over two centuries and will probably continue until agreement is reached on the meanings to assign to the self reports. If future research and analysis lead to the conclusion that self-reports reflect *happenings*, then we can endorse the interpretations of Orne, Hilgard, and other mental state theorists. If, on the other hand, future research and analysis lead to the conclusion that the self-reports of experience reflect *doings*, then we would be obliged to work from social psychological theories such as advocated by Spanos.

A fitting ending for this essay would be a conclusion about the status of its central feature: the deferred dialogue between proponents of competing theories of hypnosis. Dialogues about the theoretical construction of hypnotic phenomena will undoubtedly continue, and they will be influenced by the antecedent dialogue to which Hilgard, Orne, and Spanos contributed so substantially. The result of this antecedent dialogue has been to provide a more general consensus than heretofore about the issue of assigning meaning to self reports of experience–a consensus that will guide research and theory-building in the twenty-first century.

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