

**INTEGRATING
RESEARCH ON
DISSOCIATION AND
HYPNOTIZABILITY:
ARE THERE TWO
PATHWAYS TO
HYPNOTIZABILITY?**

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ABSTRACT

Attention to the relationship between hypnotizability and dissociation has been limited to date. A few studies have examined instances of dissociation in the context of hypnosis. Only recently have researchers begun to ask questions about the relationship between an individual's hypnotizability and his or her tendency to dissociate on a day-to-day basis. A review of the literature and recent research in this area invites reconsideration of J. Hilgard's theory of two developmental pathways to hypnotizability. The parallel question is also raised of whether the different pathways result in the experience of qualitatively different hypnotic states.

INTRODUCTION

A connection between dissociation and hypnosis has been evident since the introduction of the term dissociation (originally desagregation) by Janet in 1889. At that time, Janet conceived of the process of dissociation as an explanation for phenomena he observed during hypnosis and in hysteria patients and he used hypnosis to provide evidence for the veracity of dissociative phenomena (Hart, 1926; Nemiah, 1980).

Since that time, relatively little attention has been given to understanding the relationship between hypnosis and dissociation. This lack of attention is in part due to the divergence of research in these two areas. Most hypnosis research is done in an experimental setting with normal subjects while most dissociation research is done in clinical

settings with clinical populations. These realms of research tend to differ greatly in their approaches to research, both theoretically and methodologically, but we would agree with Hilgard (1984, p. 252) that "some theoretical bridges can eventually be constructed to relate all dissociative phenomena." This paper is an attempt to begin to bridge the gap between these two realms in order to better understand the relationship between hypnosis and clinical dissociation.

Dissociation has been described as a "lack of the normal integration of thoughts, feelings, and experiences into the stream of consciousness and memory" (Bernstein & Putnam, 1986, p. 727). According to Hilgard (1986), in his recent theoretical work on dissociation, dissociation consists of independent cognitive processes or actions which occur outside of conscious awareness. Definitions of hypnosis sometimes draw on the phenomenon of dissociation. Hilgard (1986) characterizes hypnosis as a state which produces a certain readiness for dissociative experiences. This property of hypnosis is well known among clinicians who commonly use hypnosis in the treatment of patients with dissociative disorders. Hypnosis is used in such treatment to promote dissociation so that the therapist can communicate with dissociated parts of the patient (Coons, 1986; Kluft, 1982; Putnam et al., 1986). Similarly, Spiegel (1988, p. 302) describes hypnotizability as "the fundamental capacity to experience dissociation in a structured setting."

One avenue of research which has suggested a connection between the two phenomena is the study of characteristics associated with childhood punishment and child abuse. Evidence has been found of a positive relationship between childhood punishment and child abuse and hypnotizability (Hilgard, J.R., 1972; Nash, Lynn, & Givens, 1984; Nuwlis, 1969; Cooper & London, 1976). Similarly, research on patients with dissociative disorders has found that a history of severe child abuse is characteristic of persons with severe dissociative disorders (Coons, 1986; Putnam, Guroff, Silberman, Barban, & Post, 1986).

RELEVANT ISSUES IN HYPNOSIS RESEARCH

In this paper, the terms hypnotizability, hypnotic capacity, and hypnotic responsiveness will be used interchangeably to mean the ability to experience phenomena characteristic of hypnosis in the context of hypnosis. These terms are preferred to the term hypnotic susceptibility in concurrence with Spiegel and Spiegel's (1980) observation that the latter term can have negative connotations. Though this definition of hypnotizability relies heavily on the meaning of

hypnosis, a definition of that term will not be attempted here. Readers are referred to Hilgard (1968) for a thorough discussion of that elusive concept.

Traditional scales used to measure hypnotizability (such as the Stanford Hypnotic Susceptibility Scale (SHSS), the Harvard Group Scale of Hypnotic Susceptibility (HGSHS), etc.) are understood to be assessing the expression or demonstration of hypnotic capacity in the testing context. just as intelligence tests can only approximately measure the underlying trait of intelligence, hypnotizability scales can only give an estimate of hypnotic capacity. Some of the many factors which may moderate the expression of hypnotic capacity will be discussed below.

One important controversy in hypnosis research which is directly related to the present paper is the debate over whether hypnosis involves a special state or not. Proponents of the non-state view observe that many *hypnotic* behaviors can be elicited without the benefit of formal hypnotic induction (Barber, 1969; Sarbin & Coe, 1972; Spanos, 1986). Behaviors observed in hypnotic subjects are thought to be best explained by conceptualizations based on social learning theory which emphasize situational and contextual variables. This is in contrast to the position that hypnosis is a special state with unique and distinct characteristics.

Hilgard (1987), generally considered a proponent of the stateview by non-state theorists, recently sought to define his position in terms of the domain of hypnosis. He urged researchers to be more sensitive to the overlap of the domain of hypnosis with various and diverse domains of psychology (interpersonal, cognitive, social, personality, developmental, neurophysiology, etc.) and to make sure their research and theories fit well into the appropriate domains.

Since the experience of hypnotic-like phenomena outside the context of hypnosis will be considered here, it is readily acknowledged that characteristically hypnotic behaviors sometimes occur in the absence of formal induction. This is not considered contradictory to the view that hypnotic inductions facilitate hypnotic responding.

A closely related and equally unresolved controversy in hypnosis research involves the disagreement over whether the ability to respond to hypnosis is best understood as a trait (which is relatively stable in the individual) or a skill (which can be learned). The relation of dissociation to hypnosis is highly relevant to this debate in that the lack of correlation between hypnosis and other individual characteristics is thought to be a major flaw in the trait position. Though the characteristic of absorption has been found to be related to hypnosis (Tellegen & Atkinson, 1974), Hilgard (1987, p. 252) has observed that "much of the variance in hypnotic responsiveness scores remains unaccounted for." The finding of a relationship between dissociation and hypnosis would be supportive of the view of hypnotizability as a trait.

At the heart of the trait/skill controversy is the research on the modification of hypnotizability. This research is reviewed and discussed thoroughly by Diamond (1977) and Perry (1977). Diamond's (1977, p. 148) view is that "increases in hypnotic responsiveness, particularly by means of systematic training experiences in hypnotic behavior, are quite well established." Diamond focuses on the importance

of attitudinal, situational, and interpersonal components of hypnosis.

Perry (1977) takes the position that research to date has not proven that hypnotizability can truly be modified. He holds that modification researchers have yet to show that their results are not "merely the effects of practice and familiarity with hypnotic induction procedures" (p. 127). In interpreting modification findings, Perry particularly notes methodological issues such as the failure to establish plateau susceptibility, demand characteristics, and the influence of "criterion shifts" on subject responses.

In keeping with the premise that hypnotizability scales assess the expression of hypnotic capacity within the testing context, it seems likely that modification researchers have successfully manipulated the expression of hypnotic capacity, but not necessarily the underlying capacity itself. It is not surprising that attitudinal, situational, and interpersonal variables could influence expression of hypnotic capacity.

One additional issue of relevance to this discussion is the finding of bimodality in the distribution of hypnotizability scores (Hilgard, Weitzenhoffer & Gough, 1958; Hilgard, Weitzenhoffer, Landes & Moore, 1961). An analysis of one bimodal distribution as two overlapping distributions yielded means of 8.07 ($sd = 4.01$, $n = 96.5$) and 20.00 ($sd = 1.93$, $n = 27.5$) for the two distributions (Hilgard et al., 1961). (The scores represented scores of the SHSS:A and the SHSS:B added together for each subject.) In this analysis, then, about 78% of the subjects fell into one distribution while 22% of the subjects fell into another. The presence of overlapping distributions implies that hypnotic processes differ in the two groups.

Other research has found indications of differences in hypnotic processes across levels of hypnotizability. Zamansky and Clark (1986), in investigating the effect of incompatible suggestions and images on hypnotic responding, found that performances of low hypnotizables were adversely affected by interventions while performances of medium and high hypnotizables were unchanged. Similarly, Kihlstrom, Evans, Orne, and Orne (1980) found that it was possible to disrupt post-hypnotic amnesia (by various instructional interventions) in low hypnotizables, but not in medium and high hypnotizables. Regardless of the explanation for any particular set of results, the pattern of different responses to interventions across hypnotizability levels may indicate the existence of different kinds of hypnotizability.

THE NATURE OF RESEARCH ON DISSOCIATION

Though there is much research on hypnosis which involves dissociative phenomena, only recently have some researchers begun to focus on properties of dissociation itself. Most empirical studies of dissociation are carried out exclusively in the context of hypnosis. Studies of hypnotic dissociation and the hidden observer phenomenon, for example, have examined aspects of the dissociation of cognitions and experiences during hypnosis (Bowers & Brennanman, 1981; Laurence & Perry, 1981; Nogrady, McConkey, Laurence, & Perry, 1983; Zamansky & Barris, 1985).

Researching dissociation in the context of hypnosis is an

excellent way to examine dissociative processes in a controlled environment, but it is not clear how findings can be applied to dissociation which occurs in other contexts. The population involved in hypnosis research most often consists of college students who are not known to have other disorders. In a clinical context, researchers are most interested in the dissociations of patients who suffer from dissociative or other disorders. In addition, the context of hypnosis is rather narrow to allow for conclusions about the phenomenon of dissociation.

Research on dissociation in contexts other than hypnosis includes studies of the dissociative experiences of various clinical populations (Bernstein & Putnam, 1986; Loewenstein & Putnam, 1988; Ross, Norton & Anderson, 1988; Sanders, 1986) and studies of hypnotizability and dissociation as defined by a cognitive task (Zamansky & Bartis, 1984).

To come to a better understanding of the relationship between these phenomena it is important to focus on the individual's tendency to dissociate on a day-to-day basis independent of hypnosis. Determining the frequency of dissociative experiences in a person's everyday life might be conceptualized as one way of assessing the tendency to spontaneously dissociate. If the term *disassociativity* is adopted to denote the tendency to spontaneously dissociate, the present paper could be said to discuss the relationship between the trait of dissociativity and the trait of hypnotizability.

HYPOTHESES

While there are many similarities between the two phenomena, it is not necessary to conceptualize hypnosis and dissociation as the same phenomenon or to see one as a subset of the other. A more accurate conceptualization may be that these are two overlapping phenomena. There are clinical variables of dissociation such as the loss of an integrated sense of self that are not always evident during hypnosis. Similarly, fundamental characteristics of the hypnotic state such as loss of initiative, increased suggestibility, and selective attention (Hilgard, 1968) are not always observed during dissociative episodes.

A theory of hypnotizability which is consistent with the view of hypnosis and dissociation as overlapping is that of two distinct developmental paths to hypnotizability. The possible existence of two distinct developmental pathways to hypnotizability has been suggested since the late nineteenth century by the controversy between the Salpetriere and Nancy schools of hypnosis. At that time, the Salpetriere group held that hypnotizability was essentially pathological in nature while the Nancy school believed that hypnosis resulted from suggestion and that pathology was not a necessary condition for hypnotizability to be present (Hilgard, 1968).

J.R. Hilgard (1972) has found, in more recent years, correlations of individual characteristics with hypnotizability which she interpreted as evidence for the existence of two developmental strands or pathways to hypnotizability in adults. Through extensive interviews with college students about personality features and testing of their hypnotizabil-

ity, Hilgard found two significant correlates of hypnotizability. One is the maintenance into adulthood of the imaginative involvements and capacity for absorption found in children. Adult involvements in reading, drama, creativity, childhood imagination, religion, sensory stimulation, and adventurousness, when summed, correlated $r = .35$ with hypnotizability as measured by the SISS:C.

The other correlate is through severe punishment or abuse during childhood. Hilgard found a correlation of $r = .30$ between self reports of childhood punishment and SHSS:C scores. This second path represents, no doubt, the same process by which dissociation becomes a defensive response to extreme trauma and later a habitual response. For example, in the dissociative disorder of multiple personality, dissociation is thought to have originally resulted from extreme trauma and to later have become a habitual response to stress (Putnam, 1985; Spiegel, 1986). It is likely that the tendency to dissociate results in high hypnotizability in some persons because dissociative persons dissociate easily when given the opportunity in the context of hypnosis (Bliss, 1984).

If there are two pathways to hypnotizability, this might begin to explain the bimodality of the distribution of hypnotizability found by Hilgard et al. (1961). In examining the literature and recent research on dissociation and hypnotizability, we will consider the question of whether the two developmental pathways described above might result in two different types of hypnotizability and whether the two types might be distinguished by qualitatively different hypnotic states.

REVIEW OF THE LITERATURE AND RECENT RESEARCH

One recent study examined the relationship between hypnotizability and dissociation independent of hypnosis by operationally defining dissociation in a cognitive task according to Hilgard's conceptualization of dissociation as the simultaneous operation of independent cognitive structures (Zamansky & Bartis, 1984). They developed their task to meet three criteria for dissociation (p. 247): 1) The individual must be engaged in two or more cognitive processes concurrently. 2) These processes must occur simultaneously, i.e., without recourse to alternation between them. 3) One of these processes must be perceived (by the subject) to occur below the level of conscious awareness, i.e., must seem to be autonomous or non-volitional.

Subjects were tested on their ability to do two cognitive tasks simultaneously: they were presented dichotically with a short story and a series of tones (either high or low at a rate of 3 every 2 seconds). They were asked to press a button each time they heard a low tone and were later asked questions about the story. Subjects were classified as dissociators when they scored above set criteria on both tasks. They measured hypnotizability using the HGSHS. Forty percent of the highly hypnotizable subjects (scoring greater than nine on the HGSHS) were classified as dissociators, but none of the moderately hypnotizable subjects. These results showed that highly hypnotizable subjects were more likely to be success-

full in performing a task requiring dissociation than were moderately hypnotizable subjects. The focus in this study was on an individual's ability or tendency to dissociate while performing a specific task.

Some preliminary studies have examined the relationship between hypnosis and dissociation in terms of an individual's tendency to dissociate on a day-to-day basis outside the context of hypnosis. One study by Perry (1986) which looked at 20 low, 20 medium, and 20 high hypnotizable subjects found a correlation of $r = .61$ ($p < .0001$) between scores on Form C of the SHSS and scores on the Dissociative Experiences Scale (DES). The DES is a recently developed scale which has been shown to be a reliable and valid measure of the frequency of dissociative experiences (Bernstein & Putnam, 1986). The results were replicated in the same lab using the HGSI IS:A and the DES on a separate sample of 41 subjects (C. Perry, personal communication, March 15, 1987).

The high correlations found in these studies were undoubtedly influenced by the special sample of subjects. These subjects were somewhat experienced with hypnosis in that they had already been involved with two or more hypnosis sessions and had good rapport with the lab. In addition, subjects were selected for level of hypnotizability so they did not reflect the general population in level and range of hypnotizability.

A much lower correlation was found when data was collected for a more naive sample of subjects who were more representative of the range of hypnotizability found in the general population. As part of a study on the effects of context on the relationship between absorption and hypnotizability, Kihlstrom (1987) administered the DES and the HGSHS: A to a large sample of college students not selected for hypnotizability and found a correlation of $r = .08$ ($N = 475$) (when the DES was administered in the context of a general survey) and $r = .14$ ($N = 475$) (when the DES was administered in the context of a hypnosis research session). It is possible that these lower correlations were influenced by the greater restriction of range among DES scores of normal, randomly selected subjects. In addition, Kihlstrom's modification of the scoring of the DES may have had the effect of decreasing the variability of responses so that spuriously low correlations resulted.

These correlations can be compared with correlations between hypnotizability scores and scores on questionnaires measuring *hypnotic-like* experiences. Measures such as the Personal Experiences Questionnaire (Shor, Orne, & O'Connell, 1962), the Experience Inventory (As, O'Hara, & Munger, 1962), the Hypnotic Characteristics Inventory (Lee-Teng, 1965), and Tellegen and Atkinson's absorption scale (Tellegen & Atkinson, 1974) have produced correlations with the SHSS:C ranging from $r = .27$ to $r = .50$.

The correlations between scores on the DES and hypnotizability scores indicate that a relationship exists between dissociativity and hypnotizability, but that the magnitude of the relationship varies greatly with the population sampled and varies a small amount with the context of the DES administration. Because of the different methodologies, it is still unclear what the magnitude of the correlation would be

between hypnotizability and dissociation in a randomly selected population representing a wide range of dissociativity and hypnotizability. What is interesting here depends somewhat on whether one is more interested in these processes as they occur in normal subjects or whether one is interested in the processes in clinical as well as normal populations.

It should be noted that the SHSS:C and the HGSHS:A and the DES sample from different realms of behavior in that scores from measures of hypnotizability reflect alterations in motor, sensory, and cognitive functions while DES scores reflect alterations in identity, memory, awareness, and cognitions as well as experiences of depersonalization, derealization, absorption, and related phenomena. An individual particularly prone to a type of dissociation reflected in SHSS:C and HGSHS: A scores and relatively free from a type of dissociation reflected on the DES might show correspondingly incompatible scores. Another possible influence on this correlation will be discussed below.

DISCUSSION

How Does the Data Fit the Two-Pathways Model?

Though there has been relatively little research to date in this area, it is possible to examine how well it fits Hilgard's two-pathways model. The most direct testing of the model was a reanalysis of J.R. Hilgard's (1970) imaginative involvement data. As described above, Hilgard collected data on the extent of imaginative involvements in subjects, the severity of punishment which they experienced during childhood, and their levels of hypnotizability. Frischholz (1985) found that combining the effects of imaginative involvement and severity of childhood punishment yielded a higher correlation ($r = .40$) with hypnotizability than either of these variables alone.

The Zamansky and Bartis (1984) study, while not designed to address this question, did find two subsets of hypnotizables. Among highly hypnotizable subjects, 40% were classified as dissociators in accordance with their success at a dissociation task, while 60% were classified as non-dissociators.

Data from the Perry (1986) study of DES scores across different levels of hypnotizability raises a question of whether the relationship between dissociativity and hypnotizability is consistent across hypnotizability groups. About 25% of the subjects with moderate or low DES scores score in the medium or high range of hypnotizability. In contrast, only one subject who scored as low susceptible had a DES score in the high range. This same pattern is seen in the results of the Zamansky and Bartis (1984) study: the only subjects who met criteria for dissociators were among the highly hypnotizable subjects.

If these data are accurate, it might be inferred that highly dissociative persons will necessarily be highly susceptible to hypnosis, but low or moderately dissociative persons could show any degree of hypnotizability. This aspect of the data seems to be supportive of J.R. Hilgard's (1972) view that there exist two distinct developmental pathways to hypo-

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Data from the Kihlstrom et al. (1987) study is harder to interpret in terms of the two-pathway model. Subjects must represent the full spectrum of dissociativity and hypnotizability in order to test the two-pathway model. It may be that the Kihlstrom study subjects did not represent a wide enough range on the relevant variables to properly test the model. A study designed to test the model would sample from subjects representing a wide range of dissociativity and hypnotizability without pre-selecting subjects according to their level of either trait.

Implications of the Two-Pathways Model

If there are two pathways to hypnotizability (one through severe punishment or trauma and one through maintenance of imaginative involvements), then there might be two subsets of hypnotizable persons. We will focus here on highly hypnotizable subjects for two reasons. First, most research bearing on this question has focused on the highly hypnotizable's. Second, it is in this region of hypnotizability that the two distributions described by Hilgard et al. (1961) overlap. One of these subsets would be made up of persons who are highly hypnotizable and non-dissociative and the second subset would be made up of persons who are highly hypnotizable and dissociative.

If there are two different groups of hypnotizables, the hypnotic state of highly hypnotizable dissociative persons might be qualitatively different from that of highly hypnotizable non-dissociative persons. Nadon et al. (1988), in their study of response differences among highly hypnotizable subjects (some who do and some who do not manifest the hidden observer effect), postulate that subjects may be differentiated by a *dissociative style* versus an *absorption style*.

Those having the *dissociative style* would be persons who are highly dissociative in their daily lives. Dissociative persons have been shown to be prone to a wide variety of dissociative experiences (Bernstein & Putnam, 1986) and may dissociate more or less spontaneously when stressed or when given the opportunity (such as in the special conditions of hypnosis). Such a person is more typically in a state of readiness for dissociation with or without hypnosis.

The non-dissociative person (or one with an *absorption style*), would be hypnotizable because of his or her increased capacity for absorption and imaginative involvement. The dissociation experienced by this individual would be more circumscribed, more controlled, and more intentional than that of the highly dissociative person. The non-dissociative hypnotizable person dissociates primarily under special facilitative conditions such as hypnosis.

Another possible categorization of these two subsets would be as spontaneous dissociators and intentional dissociators, respectively. This categorization focuses on the degree to which the dissociation is within the person's control. This dichotomy between spontaneous and intentional dissociators is, of course, an oversimplification that does not take into account those individuals in whom dissociativity and imaginative capacity combine in various ways to produce corresponding levels of hypnotizability.

In addition, it might be that the first condition (high capacity for imaginative involvement) is a necessary condition for the subsequent dissociative response to trauma. For multiple personality patients, this is almost certainly the case as their traumas generally have been found to occur between the ages of 6 and 12 (Putnam, 1985). These are the 6 years in particular for children when imaginative capacity is quite high (Hilgarcl, J.R., 1968).

It has been hypothesized that the age at which a trauma occurs determines or influences the resulting dissociative syndrome (Putnam, 1985). Perhaps if trauma were to occur later in life to a person with high imaginative capacity, dissociative symptoms such as those seen in post traumatic stress disorder (PTSD) patients are another group that shows both high hypnotizability (Spiegel, 1981) and high dissociativity (Bernstein & Putnam, 1986; Branscom, 1988). Branscom (1988) has advanced a theory similar to this. She posits a genetic-stressor model for PTSD in which a history of dissociative-proneness and child abuse predispose one to PTSD when a trauma occurs in a non-supportive environment.

It might also be hypothesized that some persons are influenced primarily by spontaneous dissociation or the trait of dissociativity (to the degree that they do dissociate) and some are influenced primarily by intentional dissociation. Gruenewald (1986, p. 119) writes that "what distinguishes (pathological dissociative) states from similar-appearing states brought on by way of normal hypnosis is the voluntary reversibility of the latter in contrast to the involuntary uncontrolled occurrence of the former."

Theoretically, spontaneous dissociators would have DES scores which correlate well with their hypnotizability scores. Intentional dissociators might have high or low DES scores, depending on how often they engage their capacities for absorption in their day-to-day lives. To distinguish between the two groups, it would be necessary to investigate the volition of the dissociation in addition to the nature of the dissociation. For example, in the question on the DES about absorption in T.V. or movie viewing which excludes awareness of surroundings, it might be valuable to ask whether the individual could be aware of surroundings if he or she desired.

This differentiation between intentional and spontaneous dissociators could be applied to the Zamansky and Bartis' (1984) study of ability to perform a task requiring dissociation independent of hypnosis. They found that only 40% of their highly hypnotizable subjects were able to successfully complete the task. Perhaps the other 60% of the subjects were intentional dissociators for whom the conditions for dissociation were unfavorable.

An intriguing possibility for a differentiating element between spontaneous and intentional dissociators is the phenomenon of the hidden observer. An example of the hidden observer paradigm involves subjects who have demonstrated hypnotic analgesia for pain. After the analgesia is reported, subjects are asked if there is a part of them (the hidden observer) that can report on the actual experience of pain that the hypnotized subject reportedly did not feel. This ability to be aware on two levels during hypnosis

has been found in about 40% of highly hypnotizable subjects (Laurence & Perry, 1981). It Wright he that the subjects in Zamansky and Bartis' (1984) study who did not show dissociation were the ones who had hidden observers. They may have been intentional dissociators who did not necessarily excel at that type of dissociative task under those conditions.

This formulation seems likely because the subjects in the hidden observer studies who did not have a hidden observer are actually dissociating their experiences during hypnosis *more* completely than subjects who do have awareness of more than one level of experience. That is, those subjects without a hidden observer have no access to the actual experience of pain that occurred under hypnosis while those subjects with a hidden observer can retrieve the experience. Laurence and Perry (1981) note in their report that the subjects with hidden observe's appeared more *reality bound* in contrast to the subjects without hidden observers. Testing this hypothesis would be a fairly straightforward matter and is suggested by Nadon et al. (1988, p. 33) : "the study of daily life experiences among high hypnotizable subjects who do and those who do not give evidence of dissociative type of phenomena in hypnosis may shed further light on the mechanisms implicated in hypnotic responding."

Clinical work with dissociative patients supports this formulation in that treatment seeks to modify the spontaneous and complete dissociation of multiple personality patients so that they achieve greater awareness and memory for experiences across personalities (Coons, 1986). In other words, for this disorder, less complete dissociation is considered an indication of improvement.

In conclusion, though much more research is necessary before this theory could be confirmed, research in hypnosis and dissociation in recent years could be interpreted as support for the notion of two distinct developmental pathways to hypnotizability. These pathways may produce a dichotomy in which an individual's experiences of hypnosis vary according to the influences and the interplay of the two pathways. Distinguishing between spontaneous dissociators who are hypnotizable because of their dissociativity and intentional dissociators who are hypnotizable because of their imaginative capacity may be possible through investigation of phenomena such as the hidden observer and assessment of the intentionality of and range of dissociation in hypnotizable persons. ■

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