THE HYPNOTIC INDUCTION PROFILE (HIP): A REVIEW OF ITS DEVELOPMENT

Herbert Spiegel

Reprinted from
ANNALS OF THE NEW YORK ACADEMY OF SCIENCES
Volume 296 Pages 129–142
October 7, 1977 25343

THE HYPNOTIC INDUCTION PROFILE (HIP): A REVIEW OF ITS DEVELOPMENT *

Herbert Spiegel †

Department of Psychiatry
College of Physicians and Surgeons
Columbia University
New York, New York 10032

Why Come Up with Another Test for Hypnotizability?

There has been a long-standing need for standardized measurements of hypnotizability appropriate for clinical use. Without measurements, the resulting clinical appraisals are ambiguous. Questions such as "Was the patient hypnotized or not?", "What kind of trance was it?", and "What difference does it make for therapy?" cannot be answered. Ignoring these questions, clinicians who use hypnosis plunge ahead, using some technique (or ceremony) that "works." In fact, many clinicians not concerned with the assessment issue make the assumption that all patients are hypnotizable and that inducing hypnosis depends solely upon the effort and skill of the therapist. Such ceremonies tend to be tailored for the therapist instead of the individual capacity of the patient. Also, consensual validation among therapists is not possible without a standard clinical monitor of trance experience, and further, trance capacity is not differentiated from treatment strategy.

Clinicians have been left in this predicament because laboratory tests for hypnotizability are not feasible for clinical use for many reasons. Practically, these measurements take too much time (an hour or more) out of a therapy session and also may fatigue the patient. Some instructions are aesthetically inappropriate and perhaps embarrassing. There is also the insulting insinuation in the term "susceptibility" that because of a particular weakness, a patient is hypnotizable. Laboratory tests have been standardized on nonpatients (college students), and questions of the impediments caused by psychopathology or neurological deficits have not been considered. Additionally, laboratory tests are based on the assumption that hypnosis is sleeplike, despite the fact that there is no evidence to support this. It is the opposite: attentive, receptive concentration. Asking a subject to "wake up" from a trance or referring to the trance as the opposite of the "awake" state represents sloppy thinking without data-based facts. Furthermore, it is the alertness of the patient in trance that is critical for the treatment interaction.

The Hypnotic Induction Profile (HIP) answers the need for a clinically appropriate test of trance capacity, and it can be used in the laboratory. A brief and quickly paced test,[1] it takes five to ten minutes to administer and works as an alerting operation. Instead of testing a broad range of often embarrassing "hypnotic behaviors" in order to then predict the degree of

* Studies presented in this paper were supported by a grant from the Charles E. Merrill Trust.

† Reprint requests to Dr. Herbert Spiegel, 19 East 88th Street, New York, N.Y. 10028.

hypnotizability present in a patient, it is structured to actually induce trance and use it in the context of therapy while measuring the experience of entry and exit from trance in a standardized way. In addition to the sensory reportage and motor responses that other tests measure, the HIP has a biological measure that theoretically represents an individual's potential capacity to experience trance. The HIP also sets a matrix in which discovery of sensory alteration can occur. It was standardized on a patient population in a clinical setting.[2]

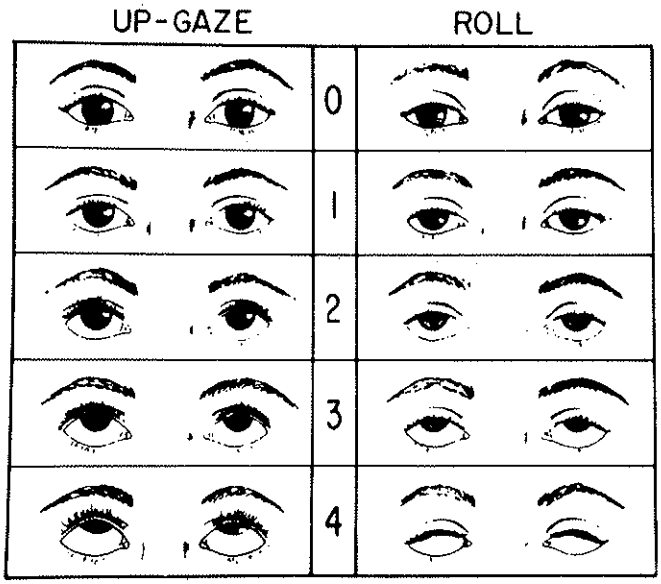

FIGURE 1. The Eye Roll Sign for hypnotizability. The Roll (ER) is a measure of the distance or amount of sclera between the lower border of the cornea and the lower eyelid exhibited while the subject simultaneously gazes upward and slowly closes the eyelid. The Up-Gaze is preparatory, and not an important measure by itself.

HOW IS HYPNOSIS EVALUATED BY THE HIP?

The HIP postulates that hypnosis is a subtle perceptual alteration involving a capacity for attentive, responsive concentration that is inherent in a person, can be tapped by the therapist, and used by the patient for his or her own goals. The biological or structural trait responsible for a person's potential to experience trance is measured by the Eye-Roll sign (ER) while the patient is not in the trance state.[3] Pictured here (FIGURE 1) is the range of five levels of the ER found in our population, represented from no potential (zero) through the highest potential for experiencing trance (four).

The association of the Eye-Roll sign with hypnotizability was discovered after several viewings of a film of a patient with hysterical seizures. Out-

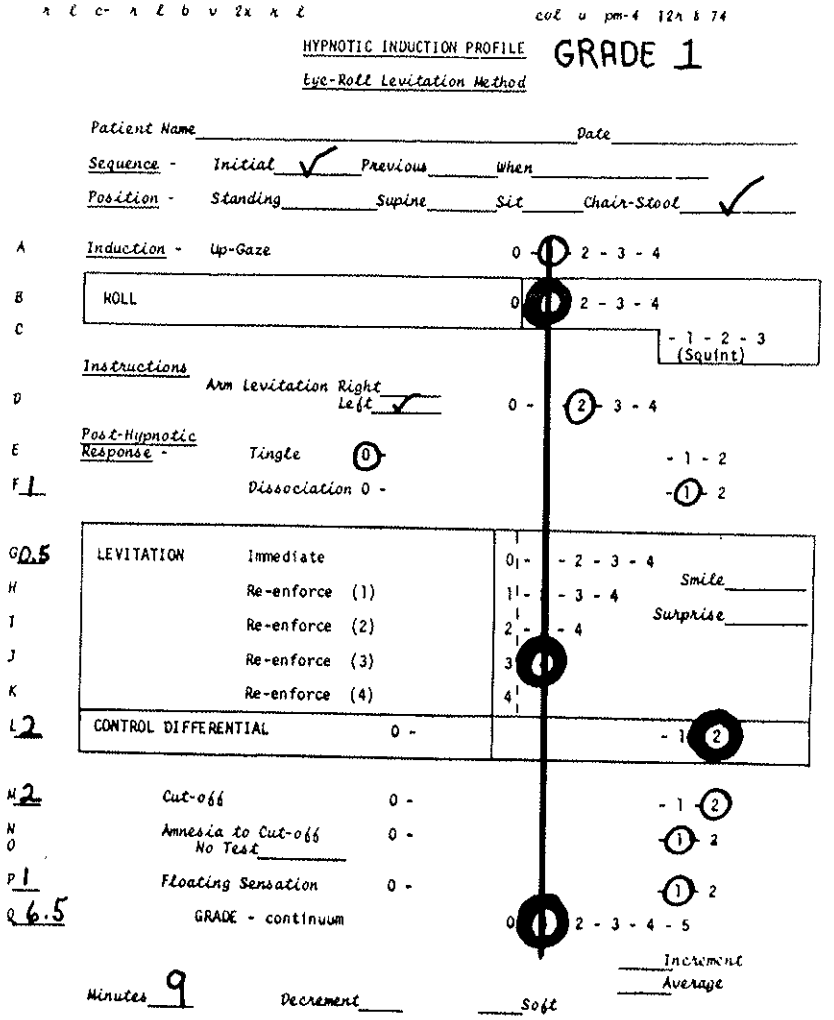

FIGURE 2. Low Intact Profile. (By permission of Soni Medica, Inc., New York, N.Y.)

(FIGURE 5—the Soft Profile). Induction scores that correspond to the Intact and borderline profiles range from approximately 3.5 through 10.[2]

Inconsistent and discontinuous performance indicates a clear break in the ribbon of concentration, a "Nonintact" capacity for trance (FIGURE 6—the Decrement Profile). Here there is indicated potential for trance (ER), but the subtle perceptual alteration has not been sustained long enough for the person to be able to discover a difference in control between the hypnotized and non-hypnotized arm. The Induction score corresponding to the discontinuous Decre-

ment Profile range from 0 through 3.5,[2] also indicating minimal experience of trance, if any.

Two separate series totaling 4,300 clinical cases reveal a bimodal distribution curve where the Decrement (discontinuous) and Soft (borderline) Profiles are discontinuous to the normal distribution of the Intact range (FIGURE 4). The distribution of Induction scores also is represented by the bimodal curve (FIGURE 7). The correlation between the two scoring methods is .84 ($N = 1023$); the intertester reliability for the Profile scoring is .62 ($N = 53$) and for the Induction scoring .75 ($N = 53$); the test-retest reliability for Profile score is .66 and for Induction score .76.[2] A reliable and valid standardized test

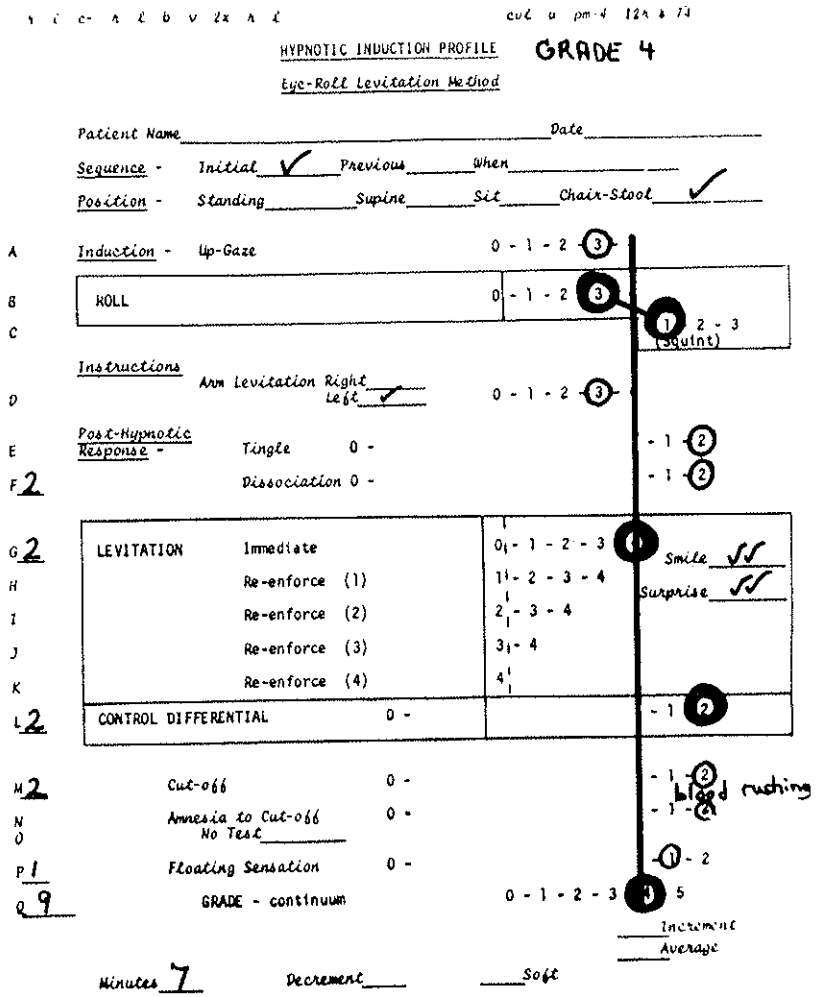

FIGURE 3. High Intact Profile. (By permission of Soni Medica, Inc., New York, N.Y.)

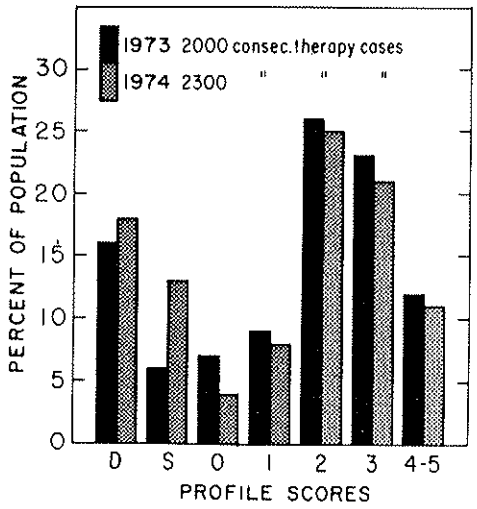

FIGURE 4. Distribution of Profile Scores. D=Decrement; S=Soft.

of hypnotic capacity, the HIP is appropriate as a research tool as well as a clinical one.

THE NONINTACT PROFILE AND PSYCHOPATHOLOGY

One of the early clinical observations was that patients with severe psychopathology such as schizophrenia, severe depression, mental retardation, severe character disorder, patients with neurological deficits such as early Parkinsonism, and patients who were heavily sedated or tranquilized tended to obtain discontinuous Decrement Profiles and sometimes Soft Profiles. These patients were essentially nonhypnotizable or minimally so. They showed biological potential for trance concentration (positive ER), but severe pathology impaired their ability to experience it.

In other words, the essential capacity for hypnosis is characterized by sustained attentive, receptive concentration during which external and internal stimuli can be received and integrated into the experience without breaking the major concentration set. This is similar to Shakow's [7, 8] description of "general set." The collapse or discontinuity characteristic of the Decrement Profile indicates that new stimuli are not incorporated into the experience and distract from the major set. This, in turn, is similar to "segmental set," a concept that Shakow has developed to describe schizophrenic behavior and experience.

These clinical observations eventually led to several studies that confirm the association between a Nonintact Profile and psychopathology, and the HIP grew to do more than assess degree of hypnotizability; it became a diagnostic tool.

First it was predicted that a population selected for the presence of severe psychopathology would show a high proportion of Decrement Profiles. Of 100 psychiatric inpatients tested at Bellevue Hospital, 92 revealed Decrement and Soft Profiles. Furthermore, three of the remaining eight patients with Intact Profiles were considered by the hospital staff to be the most psychologically

intact patients on their wards.[9] By contrast, the incidence of Decrement and Soft Profiles in private psychiatric practice is 27%.[2]

In a second investigation, the relation of Profile patterns (Intact, Soft, and Decrement) to psychological health was studied. Data on which health-illness judgments were based were obtained by independent psychological assessment. Decrement and Soft Profiles were found to cluster around the illness end of a five-point Health-Illness continuum and Intact Profiles clustered at the healthy end (FIGURE 8).[9]

The third study in this series compared the severity of psychopathology of those patients with Decrement Profiles (apparent biological capacity, no utilizable capacity) to those patients with Intact but zero-grade Profiles (zero potential in a scale of 0 through 5, and consistent lack of experience). Although both

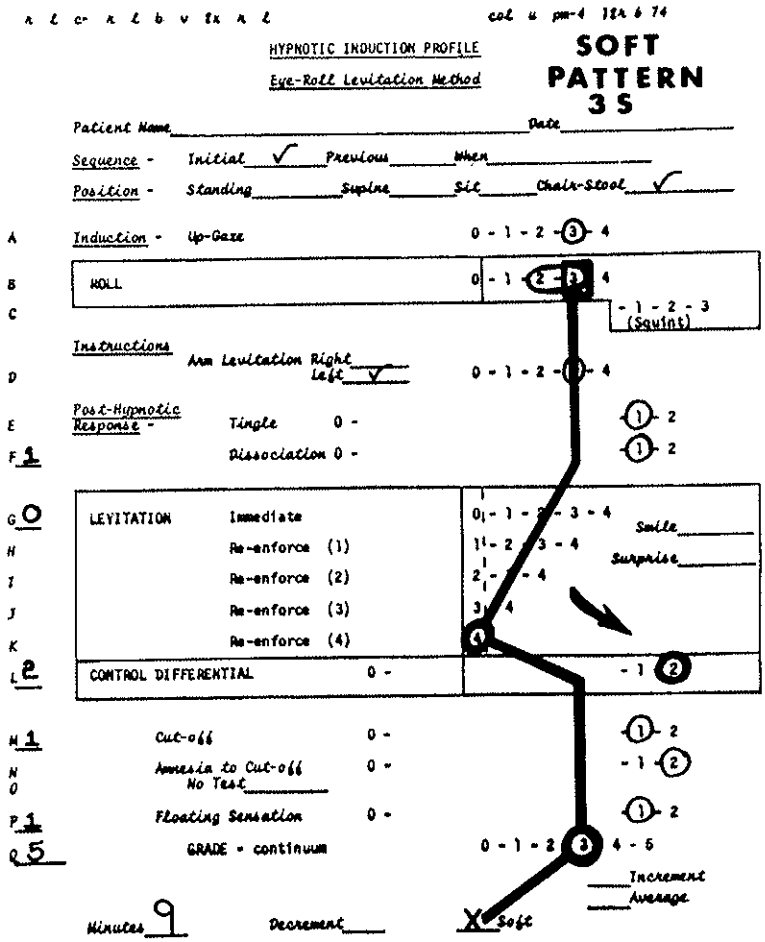

FIGURE 5. Soft Nonintact Profile. (By permission of Soni Medica, Inc., New York, N.Y.)

groups show little or no hypnotizability, we hypothesized that only the collapsed Decrement Profile should be associated with severe psychopathology. It is not nonhypnotizability but rather higher biological than utilizable capacity which should have the strong association. These hypotheses were confirmed: only

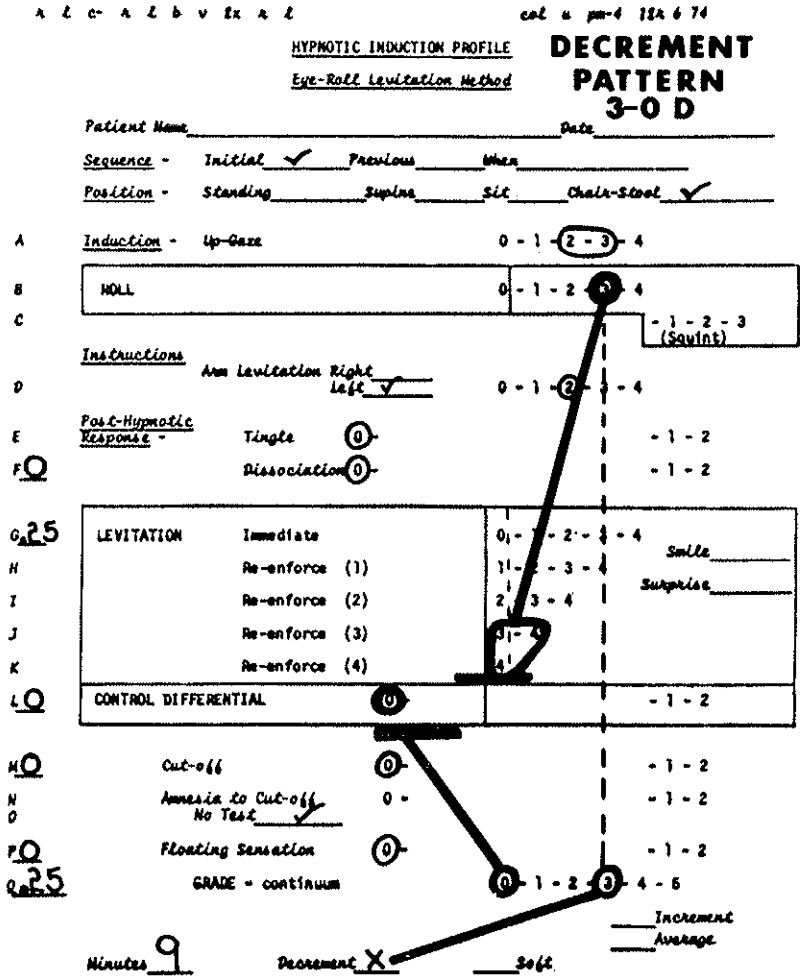

FIGURE 6. Decrement Nonintact Profile. (By permission of Soni Medica, New York, N.Y.)

one in seven straight zero Profiles showed severe psychopathology.[9] This proportion was consistent with the proportion of Intacts with severe psychopathology, and it was significantly lower than the corresponding proportion of Decrements.

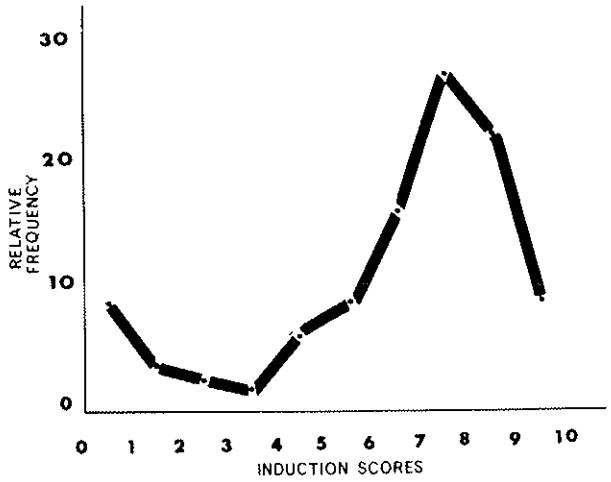

FIGURE 7. Distribution of Hypnotic Induction Scores for a sample of 1,339 patients.

WHAT INFORMATION DO WE GET FROM THE HIP CONCERNING THE KIND OF DISORDER PRESENT?

In the course of clinical work, the characteristic ER's of Decrement and Soft Profiles have lately been noted to be associated with the kind of disorder present. The patients with obsessive-compulsive character disorders and schizoid personality types tend to have Decrement or Soft Profiles with low ER's. The patients with hysteria and depression tend to have Decrement and Soft Profiles with high ER's. Suggested here is a trend from the cognitive disorders through the affective disorders on a continuum from low to high ER. Empiri-

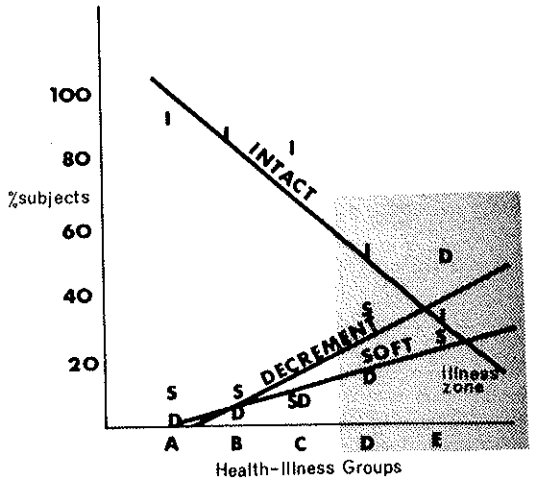

FIGURE 8. Trends for three HIP configurations on the Health-Illness continuum.

cally, this is consistent with the general observation that people with hysteria are prone to be hypnotizable and people diagnosed as schizophrenic are not "good hypnotic subjects."

The following "clinical fall-out" hypothesis has been set up to clarify this trend further: that those pathologic patients with low Profiles or discontinuous Profiles with low ER signs tend to be diagnosed in the area of the schizophrenias, or schizoid character disorders, or obsessive personality disorders. Patients with midrange ER signs (between 2 and 3 on the 0–4 scale) under stress tend to show impulse disorders, borderline personality disorders, and reactive depressions; and stressed patients with high Profiles or discontinuous Profiles with high Eye Rolls tend to have hysterical dissociations with or without somatic manifestations, severe depressions, and manic-depressive syndromes. We are now intensively investigating this hypothesis (TABLE 1).

TABLE 1

HIP SCORE AND TYPE OF PSYCHOPATHOLOGY: HYPOTHESIS

Low Capacity 1	2	Medium Capacity 3	4	High Capacity 5
obsessive-competitive disorders		impulse disorders		hysterical reactions dissociations conversions
schizoid character disorders		sociopathies		manias
paranoid character disorders		passive-agressive disorders		depressions
schizophrenias		depressions (reactive)		hysterical psychoses
Cognitive Disorders (predominantly)				Affective Disorders (predominantly)

BACK TO BIOLOGY

Recent literature suggests that there are neurophysiological correlates to these diagnoses which relate them to cerebral dominance. Flor-Henry [10] showed that patients with affective disorders (depressions) had more cortical electrical activity in the right hemisphere, and patients with cognitive disorders (schizophrenia) had more measurable cortical activity in the left hemisphere. Gur's [11] recent report is consistent with this. Other reports have suggested that capacity to be hypnotized and cerebral dominance are associated. Bakan [12] and Gur and Gur [13] have presented evidence showing that hypnotizability is primarily a right-hemisphere function. These findings are also consistent with the "clinical fall-out" hypothesis presented above.

Another biological indicator relating hypnotizability to cerebral dominance has been uncovered in the course of our clinical experience since 1972: the

Hand Clasp sign. As part of the initial evaluation session, each patient is asked to clasp his or her hands, interlocking fingers. If the patient is right-handed (which is determined by a handedness inventory) and puts the left thumb on top of the right thumb as the hands are clasped, this is identified as a "nondominant" Hand Clasp. If the patient is right-handed and the right fingers are on top, this is a "dominant" Hand Clasp. The reverse is true for the left-handed person. It was hypothesized that a nondominant Hand Clasp sign, an indicator of right-hemisphere dominance, would be associated with higher hypnotizability, and that a dominant Hand Clasp sign, indicating left-hemisphere dominance, would be associated with lower hypnotizability.

When tested, this hypothesis was statistically confirmed.[14] A dominant Hand Clasp sign was strongly associated with HIP scores indicating lower and nonhypnotizability, and HIP scores indicating higher hypnotizability tended to have nondominant Hand Clasp signs. There were, however, a large number of patients who had nondominant clasps and low HIP scores. It is also interesting to note that when higher and lower hypnotizability was measured by the ER sign alone, there was no association with hemispheric dominance. However, when the HIP Profile score which compares biological potential and experience was used, the significant relationship was found. This brings up many provocative questions: for example, "What light could the Hand Clasp sign shed in questions of psychopathology?" Finally, we are now testing this hypothesis, using the Induction score as a measure of hypnotizability.

Overall, these findings suggest that hypnotizability as measured by the HIP can give us some bearing on hemispheric dominance as well as on a person's style of adaption in the course of mental illness. Perhaps it is hemispheric dominance that is setting a person's personality style altogether? This has led to our next issue.

Personality and the HIP

Although there has been much speculation concerning the relationship between personality and hypnosis, the findings have been conflicting. Hypotheses that relate hypnotizability to sociability, extroversion, or neuroticism have not been confirmed. In summarizing the research on hypnosis and personality, Perry London said:

> There may indeed be personality traits which distinguish persons or relatively different degrees of hypnotic susceptibility, and these traits may be well worth discovering; but it seems quite clear that they are not going to be discovered by any of our existing gross personality inventories. . . . Neither our old Kraepelianian nor current construct categories seem relevant to this trait. It is time to stop doing studies [of this nature] and to seek a fresh approach.[15]

In the course of clinical experience with the HIP, discoveries are being made relating hypnotizability and personality style or structure. These investigations began with a study of the outstanding characteristics of the most highly hypnotizable patients.[16] Eventually, outstanding features of three hypnotizability groups (lows, midranges, and highs) have been identified clinically in terms of spatial awareness, perception of time, and the set of myth-beliefs that each group holds—all of which determine styles of processing and adaptation (Table 2).

Typically, the highly hypnotizable person will get so absorbed in an activity

that he tends to lose awareness of where he is. He tends to perceive time as predominantly in the present tense, ignoring past and future. The series of myth-beliefs by which he lives his life tend to be characterized by a "heart" rather than a "head" orientation, by a preference to let others set the pace in interpersonal activity, a tendency to be extremely trusting to the point of being vulnerable and gullible, a tendency to affiliate with new ideas without critically appraising them, a preference to acquire new information with close receptors such as touch. In processing new ideas, he tends to get the greater sense of fulfillment from dreaming up an idea rather than implementing it and tends not

TABLE 2

STRUCTURAL THEMES AND HYPNOTIZABILITY

GRADE: Hypnotic Induction Profile		0	1	2	3	4	5
CHARACTER TYPES			APOLLONIAN		ODYSSEAN		DIONYSIAN
STRUCTURES	A) Space Awareness (Absorption)		PERIPHERAL / Focal		FOCAL-PERIPHERAL		FOCAL \ Peripheral
	B) Time Perception		PAST-FUTURE		PAST-PRESENT-FUTURE		PRESENT
	C) Myth-Belief Constellation (Premises)		COGNITIVE / Affective		AFFECTIVE-COGNITIVE		AFFECTIVE \ Cognitive
	1) Locus of Interpersonal Control		INTERNAL		INTERNAL-EXTERNAL		EXTERNAL
	2) Trust Proneness		LOW		VARIED		HIGH
	3) Critical Appraisal		IMMEDIATE		VARIED		SUSPENDED
	4) Learning Style		ASSIMILATION		ACCOMMODATION		AFFILIATION
	5) Responsibility		HIGH		VARIED		LOW
	6) Preferred Contact Mode		VISUAL		VISUAL-TACTILE		TACTILE
	D) Processing		IMPLEMENT / Premise		MIXED		PREMISE \ Implement
	1) Writing Value		HIGH		VARIED		LOW

to need to process these ideas through language; he processes by "feeling things through." These features are characteristic of the classical Dionysian mode.

By contrast, the persons with a low grade on the Intact hypnotizability scale show characteristics of the Apollonian mode. They usually do not lose space awareness no matter how absorbed they may be in a life experience. Their time perception is focused on the past and/or future with a tendency to miss the present. Their myth-belief premises are characterized by "head" rather than "heart" orientation, a desire to control interpersonal interactions, a tendency to be less trusting than average, a need to critically appraise all new information through distance receptors (vision rather than touch). In processing new ideas,

there tends to be a greater sense of fulfillment in the implementation of an idea than in dreaming it up, and implementation is usually accompanied by a strong need to process it verbally.

The midrange style represents an admixture of the two extremes with many combinations. They characteristically negotiate a middle way between Scylla and Charybdis on their odyssey of living. We have identified this mode as Odyssean. For example, during attentive concentration, although there is a capacity for being absorbed, it is not to the point of losing space awareness totally. Time perception is usually divided equally between past, present, and future. The myth-belief constellation is characterized by a balance between head and heart; controlling interaction varies with circumstances. There may be a general tendency to be trusting, but not to the point of gullibility. Or there may be a tendency to be less trusting than average, but not to the extreme of being suspicious. There is a general tendency to critically appraise new information, but not with the extreme rigidity of the low. On some occasions the midrange person can accept new information and delay his judgment about it for some later time as characteristic of a high. In processing new information, there is an equal use of near and remote sensory input. On processing new ideas, there is a tendency to be equally adept at both imagining ideas and implementing them.

This is the latest phase of our study of hypnotic capacity, in which we are now examining the associations between these structural features of the personality, their clusters and associations with the HIP scores. Also, we are comparing HIP grades to a score on a scale of spatial awareness or absorption by Tellegen.[17] Further, we are starting to study whether the theme of the lows is set by the left hemisphere and the theme of the highs is set by the right hemisphere, and whether the midgroup has an equal balance between right and left hemisphere with a tendency to experience the oscillation from frontal to temporal-limbic areas. Or are we, in addition to the lateralization phenomena, in some way measuring a vertical hierarchy from the limbic system through the reticular activating system in relation to the cortex?

Summary and Conclusions

1. The HIP is a quick, reliable, and valid test of hypnotizability that measures biological as well as psychological reactive features of trance.
2. It helps in diagnosing clinical psychopathological syndromes that impair integrated concentration.
3. It differentiates the low or nonhypnotizable healthy person from the low or nonhypnotizable due to pathology.
4. It promises to shed light on predictable personality clusters that can influence treatment decisions and can contribute to personality research.
5. The use of the HIP promises to bring a useful measurement into the clinical realm of hypnosis, psychopathology, psychotherapy, and personality as it establishes a new bridge between the laboratory and clinic.

Acknowledgment

I should like to thank Laurie S. Lipman for her assistance in preparing this manuscript.

REFERENCES

1. SPIEGEL, H. 1974. Manual for the Hypnotic Induction Profile. Soni Medica. New York, N.Y.
2. SPIEGEL, H., M. ARONSON, J. L. FLEISS & J. HABER. 1976. A psychometric analysis of the Hypnotic Induction Profile. Int. J. Clin. Exp. Hypn. **24:** 300–315.
3. SPIEGEL, H. 1972. An eye roll test for hypnotizability. Am. J. Clin. Hypn. **15:** 25–28.
4. ELISEO, T. S. 1974. The Hypnotic Induction Profile and hypnotic susceptibility. Int. J. Clin. Exp. Hyn. **22:** 320–326.
5. WHEELER, W., H. T. REIS, E. WOLFF, E. GRUPSMITH & A. M. MORDKOFF. 1974. Eye roll and hypnotic susceptibility. Int. J. Clin. Exp. Hypn. **22:** 327–334.
6. SWITRAS, J. E. 1974. A comparison of the eye roll test for hypnotizability and the Stanford Hypnotic Susceptibility Scale: Form A. J. Clin. Hypn. **17:** 54–55.
7. SHAKOW, D. 1974. Sequential set: A theory of the formal psychological deficit in schizophrenia. Arch. Gen. Psychiat. **6:** 1–7.
8. SHAKOW, D. 1977. Segmental Set: The adaptive process in schizophrenia. Arch. Gen. Psychiat. **6:** 1–7.
8. SHAKOW, D. 1977. Segmental Set: The adaptive process in schizopherenia. Psychol. **32**(2): 129–139.
9. SPIEGEL, H., J. L. FLEISS, M. D. ARONSON, L. S. LIPMAN & J. T. JANICS. 1977. Psychopathology and the Hypnotic Induction Profile. In preparation.
10. FLOR-HENRY, P. 1976. Lateralized temporal limbic dysfunction and psychopathology. Ann. N.Y. Acad. Sci. **280:** 777–795.
11. GUR, R. E. 1977. Motoric laterality imbalance in schizophrenia. Arch. Gen. Psychiat. **34**(1): 33–37.
12. BAKAN, P. 1969. Hypnotizability, laterality of eye-movements and functional brain asymmetry. Percept. Mot. Skills **28:** 927–932.
13. GUR, R. C. & R. E. GUR. 1974. Handedness, sex and eyedness as moderating variables in the relation between hypnotic susceptibility and functional brain asymmetry. J. Abnorm. Pschol. **83:** 635–643.
14. SPIEGEL, H., D. SPIEGEL & L. S. LIPMAN. 1977. Hypnotizability and the hand clasp sign. In preparation.
15. LONDON, P. & D. DERMAN. 1965. Correlations of hypnotic susceptibility. J. Consult. Psychol. **29**(6): 537–545.
16. SPIEGEL, H. 1974. The grade 5 syndrome: the highly hypnotizable person. Int. J. Clin. Exp. Hypn. **22**(4): 303–319.
17. TELLEGEN, A. & G. ATKINSON. 1974. Openness to absorbing and self-alteringg experiences ("absorption"), a trait related to hypnotic susceptibility. J. Abnorm. Psychol. **83**(3): 268–277.