FINDING THE HYPNOTIC VIRTUOSO[1]

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Abstract: Measures of hypnotizability based on the Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A) correlate only moderately with those based on Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C). *Ss* ($N = 148$) scoring in the high range (10-12) on HGSHS:A were classified according to whether they scored in the "virtuoso" range (11-12) or not on a subsequent administration of SHSS:C. Significant group differences were found on items comprising the cognitive distortion subscale of HGSHS:A, whether assessed in terms of overt behavior or subjective impressions of success. The 2 groups also differed on global self-ratings of hypnotic depth and on those subscales of Field's Inventory Scale of Hypnotic Depth concerned with subjective feelings of loss of control, automaticity, transcendence of normal functioning, and fluctuating depth. Assessments of hypnotizability are enhanced when investigators consider subjective involvement as well as behavioral measures of hypnotic response. This is particularly important when the more dissociative aspects of hypnosis are under scrutiny.

Researchers of all theoretical persuasions are agreed on the existence of wide individual differences in hypnotizability. The distribution of hypnotic skill follows essentially a normal curve, with a bias towards low scores, and perhaps a hint of bimodality (E. R. Hilgard, 1965). While very few people are entirely refractory to hypnosis, it is also the case that very few are classifiable as somnambules. Moreover, measured hypnotizability is rather unresponsive to interventions directed at enhancement (Perry, 1977): unhypnotizable *Ss* cannot be changed into hypnotic virtuosos. These points are important because the outcome of many hypnotherapeutic strategies is correlated with hypnotizability and many of the most clinically useful hypnotic phenomena, such as analgesia, occur most frequently in those individuals scoring in the upper ranges of the scale (E. R. Hilgard & J. R. Hilgard, 1983; Perry, Gelfand, & Marcovitch, 1979). A parallel point may be made about experimental research: hypnotic phenomena should be studied only in those hypnotizable *Ss* who are capable of experiencing them. In either case, these findings inevitably lead to the

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conclusion that hypnotizability should be assessed in the individual client or S before hypnosis is used. It represents a waste of time and a frustrating experience for all concerned to try to develop hypnotic phenomena in individuals who simply are not capable of experiencing them.

No paper-and-pencil questionnaire shows a correlation with hypnotizability remotely high enough to permit very accurate prediction of individual performance, so assessment must rely on work samples of hypnotic behavior, scored by objective behavioral criteria. The most satisfactory instruments for this purpose are the various Stanford Hypnotic Susceptibility Scales developed by Weitzenhoffer and E. R. Hilgard (1959, 1962, 1967). The battery consists of: Form A (SHSS:A), an elementary scale loaded heavily with fairly easy ideomotor and challenge items; Form B (SHSS:B), an alternative version of SHSS:A, suitable for follow-up testing; and Form C (SHSS:C), a more difficult scale containing many suggestions for perceptual and cognitive alterations. A second series, the Revised Stanford Profile Scales of Hypnotic Susceptibility, Forms I and II (Weitzenhoffer & E. R. Hilgard, 1967), sample an even broader range of cognitive alterations and can be used either for further screening within the range of high hypnotizability, or for the selection of Ss with particular hypnotic talents (E. R. Hilgard, Crawford, P. Bowers, & Kihlstrom, 1979). The recommended procedure is to administer SHSS:A as an initial screening device or "icebreaker," followed by a final assessment with SHSS:C (E. R. Hilgard, 1978/1979). Such a procedure, however, requires at least 2 hours of individual testing and may seem unsuitable simply because it takes up too much time.

For this reason, the Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A) was developed by Shor and E. C. Orne (1962, 1963). Closely modelled on SHSS:A, this standardized, group-administered, and self-scored instrument yields substantial economic benefits by reducing the expenditure of time and effort needed to test large numbers of candidates for hypnosis. Because there is a high correlation (approximately $r = .85$) between Ss' self-ratings and those made by objective observers (Bentler & E. R. Hilgard, 1963; O'Connell, 1964; Shor & E. C. Orne, 1963), HGSHS:A represents an almost ideal instrument for its intended use: as an initial exposure to hypnosis for naive individuals and as a prelude to a more rigorous classification of hypnotizability by means of such advanced procedures as SHSS:C.

Since HGSHS:A was introduced, there has been an increasing tendency toward reliance on it alone, without proceeding to SHSS:C for a final criterion assessment. This practice has some merits — for example, the group-administered, tape-recorded format insures that unhypnotizable and hypnotizable Ss are treated alike by the hypnotist; and the procedure permits the easy accumulation of large amounts of data. Several studies of unselected samples, however, show that HGSHS:A correlates only

TABLE 1

JOINT DISTRIBUTION OF HYPNOTIZABILITY AS CLASSIFIED BY HGSHS:A AND SHSS:C (UNPUBLISHED DATA FROM KIHLSTROM & EVANS, 1979)

HGSHS:A Classification	SHSS:C Classification				Total
	Low (0-4)	Medium (5-7)	High (8-10)	Virtuoso (11-12)	
Low (0-4)	48	13	7	0	68
Medium (5-7)	23	22	20	3	68
Medium High (8-10)	4	20	33	15	72
Very High (11-12)	0	1	6	4	11
Total	75	56	66	22	219

about $r = .60$ with SHSS:C (Bentler & Roberts, 1963; Coe, 1964; Evans & Schmeidler, 1966). This figure falls far short of the maximum correlation of $r = .82$ which can be obtained between the scales, as calculated from their individual reliabilities (Evans & Schmeidler, 1966).

The problem is illustrated in Table 1, which presents data from a study in which two unselected samples of volunteer *Ss* ($N = 112$ and 107, respectively) received both HGSHS:A and SHSS:C, administered by different *Es* on different days (Kihlstrom & Evans, 1979).[4] The correlations between HGSHS:A and SHSS:C were $r = .60$ and .57, respectively. In Table 1, the 219 *Ss* have been classified employing conventional cutpoints (E. R. Hilgard, 1965): low (0-4), medium (5-7), moderate high (8-10), and very high (11-12). The *Ss* scoring 11-12 on SHSS:C, comprising 5-10% of the population, are generally classified as hypnotic virtuosos. There is a significant relation between the two scale scores ($r = .62$, $df = 218$; $X^2 = 92.80$, $df = 9$; $C = .65$), but there is clearly a lot of slippage as well. Most important in the present context, only 36% of *Ss* scoring in the highest range of HGSHS:A continued to do so on SHSS:C.

This unreliability problem is partly due to regression to the mean, and partly it reflects the increased difficulty level of the average SHSS:C item and differences in the content of the two scales. However, two studies show that SHSS:A, on which HGSHS:A is closely modelled, has a higher correlation with SHSS:C (E. R. Hilgard, 1965: $r = .72$; K. S. Bowers, 1981: $r = .77$), so these psychometric considerations do not tell the entire story. A major difference between HGSHS:A and SHSS:A or SHSS:C, however, is that the former is administered in a group setting, thus affording increased opportunity for social interactions among *Ss* to distort its scores. For example, peer pressure may lead to behavioral compliance in the absence of subjectively compelling experience of the suggested

[4]For the combined sample of 219 *Ss* the mean HGSHS:A score was 6.18 (*S.D.* = 2.89), and the mean SHSS:C score was 6.17 (*S.D.* = 3.25). The HGSHS:A scores, derived from scales administered in 1965 and 1966, are considerably lower than those obtained in the present sample and in other recent samples, and may suggest a secular trend in hypnotizability.

effects, so that performance on HGSHS:A fails to some degree to tap the "classic suggestion effect" of involuntary response (Weitzenhoffer, 1974) which defines the domain of hypnosis. This is not so much of a problem with the individually administered Stanford Scales (K. S. Bowers, 1981; E. R. Hilgard, 1981; Ruch, Morgan, & E. R. Hilgard, 1974).

The present experiment focused on Ss in the upper reaches of the distribution of HGSHS:A and attempted to delineate other features of their response to the procedure that would help predict their final status on SHSS:C. This analysis was particularly concerned with the phenomenological experience of hypnosis (Shor, 1979), including the subjective conviction and feelings of involuntariness associated with the "classic suggestion effect."

METHOD

Subjects

The sample for the present study consisted of 1351 Ss who attended routine hypnosis screening sessions during the period of November, 1980 to January, 1982. These participants were introductory psychology student volunteers who received credit toward the research participation option of their introductory psychology course. An attempt was made to invite all 208 Ss who scored 10-12 on the 12-point HGSHS:A to return for an individual administration of SHSS:C; 148 of Ss (71%) did so. In addition, 72 Ss scoring 0-9 on HGSHS:A (24 each scoring 0-4, 5-7, and 8-9) were invited to return to meet the requirements of other experiments. Thus, a total of 220 Ss received SHSS:C.

Measures of Hypnotic Response

The present study was conceived in psychometric terms, with a number of variables derived from the initial HGSHS:A screening session employed to predict final performance on SHSS:C.

Tellegen Absorption Scale. The Tellegen Absorption Scale (Tellegen & Atkinson, 1974) assesses an individual's tendency to become involved in imaginative and absorbing activities outside of hypnosis, and it has been found to correlate with hypnotizability. It was administered at the start of the session, before HGSHS:A.

Previous experience. Also prior to HGSHS:A, Ss indicated whether they had ever (*a*) seen hypnosis in a movie, or (*b*) read about it in a novel, and had (*c*) they, or (*d*) an acquaintance ever been hypnotized. Answers to these questions were summed to form a -4 to $+4$ scale.

HGSHS:A subjective success. The HGSHS:A consists of an induction of hypnosis accompanied by suggestions for 12 representative hypnotic experiences. The last two items are for a simple posthypnotic suggestion and temporary posthypnotic amnesia. Following completion of the amnesia test item of HGSHS:A, Ss were asked to indicate whether they felt they had successfully experienced each of the 12 suggestions, following the procedure of Kihlstrom and E. C. Orne.[5] "Success" was not further defined for Ss.

[5]Kihlstrom, J. F., & Orne, E. C. Retrospective appraisals of hypnotic depth: A study of self-appraisal. Manuscript in preparation.

HGSHS:A behavioral scores. The Ss next evaluated their own responses to the first 11 suggestions according to the dichotomous behavioral criterion specified in HGSHS:A. Instructions emphasized that judgments about behavior were to be made irrespective of what the inner, subjective experience had been like. The last suggestion, for amnesia, was scored from Ss' written memory reports, following the standard procedure as revised by Kihlstrom and Register (1984).

HGSHS:A global depth ratings and rationales. Subsequent to the subjective and objective evaluations, Ss were asked to indicate on a scale of 1 to 10 (O'Connell, 1964) "how deeply hypnotized" they felt they had been. "Depth of hypnosis" was not further defined for Ss.

The Ss were asked to comment, in writing, on the reasons for their self-rating. Some typical positive comments were: "I responded well to all the suggestions," "I felt totally relaxed," and "I just couldn't resist . . . ." Some negative comments were: "I was constantly aware of my surroundings . . . don't feel I should have been if I was really hypnotized," "had problems doing some of the things even though I really wanted them to work," and "My mind wandered a lot . . . don't think I was really listening sometimes." These comments were subsequently coded into 26 categories, representing mentions of response to the 12 items of HGSHS:A, plus the following 14 categories: relaxation, involuntariness, concentration, success, strangeness, comfort, dissociation, fluctuating depth, reaction time, fell asleep (or loss of consciousness), expectations, conviction, reality suspension, and general reaction to the experience. Each unit was coded as positive or negative. Additionally, two independent raters experienced in administering HGSHS:A and SHSS:C read these comments on HGSHS:A and attempted to predict from them whether each *S* would prove to be a "virtuoso" on the later SHSS:C.

Inventory Scale of Hypnotic Depth. Following HGSHS:A, Ss completed the Inventory Scale of Hypnotic Depth (Field, 1965; Field & Palmer, 1969). This inventory, derived empirically, consists of 39 items concerned with experiences of loss of awareness, involuntariness, subjective conviction, etc. during hypnosis that distinguish hypnotizable from unhypnotizable Ss.

SHSS:C criteria. Returning Ss were randomly assigned to an individually administered SHSS:C session conducted by one of six *E*s. Like HGSHS:A, SHSS:C consists of an induction, hypnosis, and 12 representative hypnotic suggestions. The responses were scored by *E* according to standard behavioral criteria, and the number of items passed yielded the SHSS:C score. In addition, Ss scoring 11-12 were classified as hypnotic virtuosos, and those Ss scoring 0-10 were classified as nonvirtuosos.

Results

The mean HGSHS:A behavioral score for the entire sample of 1351 Ss was 6.81 (*S.D.* = 2.49). Despite intentions to invite all Ss scoring 10-12 on HGSHS:A to return to the laboratory for SHSS:C, due to time constraints, not all those Ss who were eligible were actually contacted (al-

TABLE 2

JOINT DISTRIBUTION OF HYPNOTIZABILITY AS CLASSIFIED BY HGSHS:A AND SHSS:C (PRESENT STUDY)

HGSHS:A Classification	SHSS:C Classification				Total
	Low (0-4)	Medium (5-7)	High (8-10)	Virtuoso (11-12)	
Low (0-4)	17	4	3	0	24
Medium (5-7)	13	5	4	2	24
Medium High (8-9)	3	9	11	1	24
Very High (10-12)	0	5	11	8	24
Total	33	23	29	11	96

though 95.3% of those *Ss* who were contacted agreed to participate). Accordingly, it is important to establish that those *Ss* who actually returned to the laboratory for the second session were representative of the entire group who met the selection criterion. A comparision of returning and nonreturning *Ss* on the predictor variables revealed no significant group differences (all $p > .05$). Thus, *S* group employed in the final sample was free of contamination from volunteer bias.

Predicting SHSS:C from HGSHS:A

A stratified subsample ($N = 96$) of all *Ss* who had returned for SHSS:C was drawn in order to estimate the overall correlation between HGSHS:A and SHSS:C. This sample included all 72 *Ss* scoring 0-9 on HGSHS:A, plus a random sample of 24 *Ss* scoring 10-12. The distribution of hypnotizability within the subsample was therefore rectangular with the result that it overrepresented *Ss* of low and very high hypnotizability, thus inflating the variance of scores (HGSHS:A behavioral score: $\bar{X} = 7.09$, *S.D.* = 3.05). Table 2 shows the cross-classification of *Ss* in terms of HGSHS:A score (0-4, 5-7, 8-9, 10-12) and SHSS:C score (0-4, 5-7, 8-10, 11-12). Again only a minority (33%) of *Ss* scoring in the highest range of HGSHS:A continued to do so on SHSS:C (with the same cutpoints as employed in Table 1, this percentage rises to 50%). A formula which corrects for the inflated variance in the stratified sample was utilized (see J. Cohen & P. Cohen, 1975) in order to estimate the true correlation between HGSHS:A and SHSS:C; the results yielded a raw correlation of .72, which when corrected fell to .62. These results are consistent with earlier investigations (Coe, 1964; Evans & Schmiedler, 1966) and suggest that the substantially higher correlation of .84 obtained by Farthing, Brown, and Venturino (1983), who also employed a biased sample, but did not use a correcting formula, is spuriously inflated.

The Tellegen Absorption Scale correlated $r = .38$ ($p < .001$) with HGSHS:A total behavioral scores, which fell to $r = .31$ ($p < .01$) when corrected for expansion of range. The corresponding correlation between the Tellegen Absorption Scale and SHSS:C scores was .35 ($p < .001$).

TABLE 3

HGSHS:A PERFORMANCE AND HYPNOTIC VIRTUOSITY

HGSHS:A	Non-Virtuosos		Virtuosos		t	r
	$\bar{X}$	*S.D.*	$\bar{X}$	*S.D.*		
Behavioral Response:						
Ideomotor	3.89	0.31	3.93	0.25	0.70	.00
Challenge	4.69	0.50	4.77	0.43	0.72	−.09
Cognitive	1.89	0.73	2.33	0.76	2.96**	.18
Total	10.47	0.66	11.03	0.85	3.83***	.31
Subjective Response:						
Ideomotor	3.91	0.32	3.93	0.25	0.43	.03
Challenge	4.62	0.63	4.77	0.43	1.18	.05
Cognitive	1.62	0.89	2.07	0.92	2.43*	.41
Total	10.15	1.10	10.76	1.15	2.66**	.36
Inventory Scale of Hypnotic Depth:						
Control	1.70	0.93	2.33	0.92	3.35***	.24
Fluctuating depth	2.73	0.78	3.17	0.59	2.83**	.25
Automaticity	4.15	1.38	4.79	1.21	2.29*	.26
Transcendence	3.27	1.20	3.77	1.10	2.06*	.21
Estrangement	1.94	0.93	2.27	0.94	1.71	.08
Time distortion	2.85	1.11	3.17	1.02	1.40	.10
Strangeness	6.83	1.83	7.10	1.73	0.71	.14
Consciousness	4.05	1.04	4.20	0.92	0.70	.07
Total	22.57	3.81	23.66	3.15	1.40	.15
Global Depth	7.22	1.59	7.92	1.24	2.27*	.12
Absorption	23.17	5.87	23.54	5.48	0.30	.21

[a]SHSS:C score = 0-10, N = 118.
[b]SHSS:C score = 11-12, N = 30.
*$p < .05$.
**$p < .01$.
***$p < .001$.

Features of HGSHS:A Performance Distinguishing Virtuosos from Non-virtuosos

Of the 148 *Ss* scoring 10-12 on HGSHS:A, only 30 (20.3%) scored in the 11-12 range of SHSS:C, qualifying them as hypnotic virtuosos. Following the method described by Meehl (1945) for establishing criterion validity, the predictor variables derived from HGSHS:A were examined to determine which, if any, distinguished between *Ss* who scored in the virtuoso range of SHSS:C and those *Ss* who failed to meet this criterion. Table 3 presents the cell means for the two groups for all scores obtained in the HGSHS:A session (all reported p values are 2-tailed).

Despite the narrow range of hypnotizability scores employed in *S* selection, the two groups differed significantly in terms of total HGSHS:A behavioral scores. Examination of the subscales indicated that this difference was carried primarily by the cognitive items. For example, 70% of SHSS:C virtuosos, but only 53% of the nonvirtuosos, displayed re-

versible posthypnotic amnesia (Kihlstrom & Register, 1984) on HGSHS:A, and only 14.1% of Ss failing to show reversible amnesia on HGSHS:A subsequently proved to be hypnotic virtuosos. There were no group differences on the ideomotor and challenge subscales. Similar findings were obtained for the ratings of subjective success.

There was a significant difference between groups for global ratings of perceived hypnotic depth, but of the 26 coding categories on the global depth commentary only eight received sufficient mention (by at least 10 Ss) to permit statistical analysis. The eight categories were: Success, Distraction, Involuntariness, Relaxation, the Amnesia, Fly, and Posthypnotic suggestion items, and Conviction. None of the scores significantly differentiated the two groups; nor were the judges able to predict SHSS:C virtuosos based on these comments.

The two groups did not differ on the total Inventory Scale of Hypnotic Depth score, but did show differences on four of the eight subscales revealed by factor analysis in a separate study (Kihlstrom, Mross, Niedenthal, Register, & Wilson[6]): transcendence, automaticity, control, and fluctuating depth. There were no differences between groups for Tellegen Absorption Scale scores or for previous experience with hypnosis.

Table 3 also presents the group differences in terms of the correlation between each HGSHS:A predictor variable and total SHSS:C score. Of the eight correlations exceeding .20, six — including the two largest — reflect individual differences in the subjective experience of hypnosis. In particular, the subjective experience of the suggestions for cognitive alterations (hallucinations, amnesia, and posthypnotic suggestion) proved to be more predictive of final SHSS:C scores than behavioral responses to these same items ($t = 3.30$, $df = 145$, $p < .01$). The total subjective success score was a somewhat better predictor than the total behavioral score, although the difference was not significant ($t < 1$). Of the many different subjective experiences tapped by the Inventory Scale of Hypnotic Depth, the ones most predictive of final outcome were those having to do with feelings of automaticity and loss of control. The Ss scoring high on SHSS:C also have a higher capacity for imaginative involvement in their normal waking lives, and they experienced fewer fluctuations in hypnotic depth during the HGSHS:A session.

Multiple Regression Analysis

All of the predictor variables described earlier are, of course, positively intercorrelated. Therefore, it is somewhat misleading, except for expositional purposes, to analyze them as if they were mutually independent. The obvious solution is multiple regression. Whereas the correlation between HGSHS:A total behavioral scores and SHSS:C scores in the selected subsample was only .31, a 5-element multiple regression equation,

[6]Kihlstrom, J. F., Mross, E. M., Niedenthal, P. M., Register, P. A., & Wilson, L. Self-appraisals of hypnotic depth and the subjective experience of hypnosis. Manuscript in preparation.

TABLE 4

STEPWISE MULTIPLE REGRESSIONS:
HGSHS:A SUBJECTIVE RESPONSE PREDICTING SHSS:C SCORE (N = 148)

Variables	Partial *r*	*R*
1. *Using Total Scores*		
Subjective Success	.36	.36
Absorption	.16	.39
Global Depth	.10	.40
ISHD[a]	.07	.41
2. *Using Subscale Scores*		
Cognitive (HGSHS:A Subjective)	.41	.41
Fluctuating Depth (ISHD)	.21	.45
Automaticity (ISHD)	.20	.48
Absorption (TAS)[b]	.14	.50
Control (ISHD)	.07	.50
Time Distortion (ISHD)	−.04	.51

Note.—Only variables entering significantly into the multiple regression are listed.
[a]ISHD = Inventory Scale of Hypnotic Depth.
[b]TAS = Tellegen Absorption Scale.

adding the total HGSHS:A subjective, Inventory Scale of Hypnotic Depth total, and Tellegen Absorption Scale scores, as well as Ss' global depth ratings, raised the multiple correlation to .44. Similarly, a 3-element multiple regression equation employing only the three HGSHS:A behavioral factors yielded a multiple correlation with SHSS:C of .38; a 16-element equation, considering these three factors, the three corresponding HGSHS:A subjective factors, the eight Inventory Scale of Hypnotic Depth factors, Tellegen Absorption Scale, and global depth boosted the correlation to .54.

In order to assess the relative contributions of each of the predictors of hypnotic virtuosity, they were entered into stepwise multiple regression equations predicting SHSS:C scores. Scores derived from the behavioral scoring of HGSHS:A were not entered into these equations; they had been used in selecting the initial subset of 148 "likely virtuosos." Table 4 shows the results (Table 3 presents the zero-order correlations). The 5-element regression, employing only total scores, explained 17% ($.41^2$) of the variance of SHSS:C; thus, the feelings of subjective success accounted for the vast proportion (79%) of the explainable variance. For the 16-element regression, employing subscales derived from factor analysis of HGSHS:A and Inventory Scale of Hypnotic Depth, the cognitive subscale was dominant, accounting for 65.5% of explainable variance.

Discriminant Function Analysis

As indicated in Table 2, HGSHS:A total behavioral score, taken alone, was not particularly accurate in identifying Ss who attained virtuoso status on SHSS:C. Of the 24 Ss scoring in the very high range (10-12) on HGSHS:A, only 8 (33%) scored in the virtuoso range (11-12) on SHSS:C. When Ss were classifed according to HGSHS:A subjective success ratings,

using the same cutpoints, the percentage correctly identified as virtuosos was 31.3%. A discriminant function analysis employing the five total scale scores (HGSHS:A behavioral, HGSHS:A subjective, global depth, Tellegen Absorption Scale, and Inventory Scale of Hypnotic Depth) correctly classifed 63.3% of the virtuosos. A second discriminant function analysis, employing the subscales of HGSHS:A and the Inventory Scale of Hypnotic Depth in addition to the Tellegen Absorption Scale and global depth ratings, also correctly classified 63.3% of the virtuosos.

Discussion

Although HGSHS:A is often employed to assess Ss' ability to respond to hypnosis, in fact it is a relatively poor predictor of performance on SHSS:C, which is generally regarded as the best available criterion of hypnotizability. Although few virtuoso Ss score low on HGSHS:A, high scores do not by any means guarantee that S will prove to be a virtuoso. Scores in the medium range are especially unreliable. Prediction can be improved, at least for those Ss who are most likely to be virtuosos, by taking Ss' private experience of hypnosis into account, as well as their overt behavioral response to suggestions. Thus, Ss' responses to an unstructured rating of "hypnotic depth," their subjective impression of the success of the various test suggestions, and their reports of certain "trance-like" experiences all differentiated between those Ss who achieved virtuoso status and those who did not. Considering that the subscales of HGSHS:A and Inventory Scale of Hypnotic Depth did not improve the prediction of virtuoso status over the level of prediction achieved with only total scale scores, the total scale scores, which are easier to calculate, possess greater utility (Mischel, 1968).

One major difference between HGSHS:A and SHSS:C criterion of hypnotizability, is the matter of self versus observer scoring of behavioral responses to suggestions. Self-scoring, if diminished in reliability, will necessarily lead to a decrement in predictive validity as well. The available research, however, shows satisfactory levels of agreement between Ss and observers. A more important factor, perhaps, has to do with the group-administered format of HGSHS:A. A group setting provides ample opportunity for conformity (Asch, 1951) and group polarization (Myers & Lamm, 1976) effects that would tend to render Ss' HGSHS:A scores less than accurate estimates of their actual hypnotizability. Some social comparison can occur during testing of posthypnotic suggestion and amnesia, when Ss' eyes are open. The possibility for social comparison, however, is limited by the fact that Ss' eyes are closed throughout most of the procedure, and in our laboratory they are not seated directly behind or next to one another. Also possible is a kind of social facilitation effect (Zajonc & Sales, 1966), in which the mere presence of others increases motivation, and thus performance levels. The effects of this would be to enhance overt behavioral responding in the absence of accompanying subjective conviction.

The ratings of subjective success certainly tap this dimension of conviction, and the global depth and Inventory Scale of Hypnotic Depth ratings may do so as well; thus, they serve as a correction for inflated behavioral scores (Barber, 1969; London, 1962; Ruch, Morgan, & E. R. Hilgard, 1973). The determinants of the subjective experience of success with hypnotic suggestions are unknown at present. In part, they may relate to the "classic suggestion effect" (K. S. Bowers, 1981; P. G. Bowers, 1982; Weitzenhoffer, 1974): the quasiautomatic, compulsory, involuntary quality which distinguishes hypnotic response from compliance with simple social requests. If so, then a direct assessment of perceived involuntariness might enhance the predictive validity of HGSHS:A even more. This is especially true for the perceptual-cognitive alterations which relate to Ss' capacity for dissociation.

Of course, ratings of subjective success and perceived involuntariness can correct hypnotizability scores *upward* as well as downward. Dichotomously scored behavioral measures such as HGSHS:A and the Stanford scales will necessarily fail to credit Ss with degrees of response that fail to reach the criterion set by the standardized scoring procedure. Of two Ss who fail the behavioral criterion, the one who gave at least a partial response, as indicated by reports of success or involuntariness, is likely to prove more hypnotizable on a final criterion assessment than one who does not (Kihlstrom & Register, 1984). There is no implication in this research that the dichotomous behavioral criteria established in these scales be abandoned. These are important features of the scales and contribute greatly to their reliability, validity, and utility as psychometric instruments (E. R. Hilgard, 1981). Nor is there any suggestion that somehow HGSHS:A can be bolstered so that it can serve as the sole criterion of hypnotizability. In those situations where HGSHS:A must stand alone for economic reasons, however, and especially where HGSHS:A is employed as a convenient preliminary screening device in the search for hypnotic virtuosos, it would seem that some assessment of the subjective experience of hypnosis would provide useful supplementary information at very little cost.

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Das Finden des hypnotischen Virtuosen

Patricia A. Register und John F. Kihlstrom

Abstrakt: Maße der Hypnotisierbarkeit, die auf der Harvard-Gruppenskala für Hypnoseempfindlichkeit, Form A (HGSHS:A), basiert sind, stehen nur mäßig mit denen in Beziehung, die auf der Stanford-Hypnoseempfindlichkeitsskala, Form C (SHSS:C), basiert sind. *Vpn.* (*N* = 148), die im Spitzenbereich (10-12) an der HGSHS:A abschnitten, wurden bei einer nachfolgenden Administration der SHSS:C ihren Resultaten gemäß als "Virtuosen" (11-12) oder nicht dazugehörig klassifiziert. Bedeutende Gruppenunterschiede wurden bei Details gefunden, die die kognitive Distorsions-Subskala der HGSHS:A darstellten, ob in der Form eines offensichtlichen Betragens oder in subjektiven Gefühlsausdrücken. Die 2 Gruppen unterschieden sich auch in globalen Selbstbewertungen der hypnotischen Tiefe und an jenen Subskalen von Fields Inventarskala der hypnotischen Tiefe, die sich mit subjektiven Gefühlen des Kontrollverlusts, Automatik, Transzendenz des normalen Funktionierens und fluktuierender Tiefe befassen. Die Bewertungen der Hypnotisierbarkeit werden gesteigert, wenn die Untersuchenden eine subjektive Verwicklung wie auch Benehmensmaße der Hypnosereaktion in Betracht ziehen, was besonders wichtig ist, wenn die zersetzenderen Aspekte der Hypnose sich unter strenger Prüfung befinden.

À la recherche des virtuoses de l'hypnose

Patricia A. Register et John F. Kihlstrom

Résumé: Les mesures d'hypnotisabilité provenant de l'Échelle d'Hypnotisabilité de Groupe de Harvard, forme A (HGSHS:A) présentent une corrélation moyenne avec les scores d'hypnotisabilités obtenus de l'Échelle d'Hypnotisabilité de Stanford, forme C. Les sujets (total = 48) ayant obtenu un score de 10 à 12 sur le HGSHS:A sont ensuite classés comme virtuose ou non, selon qu'ils obtiennent ou non, un score de 11 ou 12 lors d'une évaluation subséquente, avec le SHSS:C. Les deux groupes diffèrent de façon significative sur les items de la souséchelle de distorsion cognitive du HGSHS:A, qu'ils soient mesurés selon les comportements observables ou encore les impressions subjectives de succès. Les deux groupes diffèrent aussi sur les auto-évaluations de la profondeur hypnotique, ainsi que sur les sous-échelles de l'Inventaire de Profondeur Hypnotique de Field, impliquées dans

les sensations de perte de contrôle, d'automaticité, de transcendance du fonctionnement habituel et de profondeur fluctuante. La mesure de l'hypnotisabilité est plus juste et solide, lorsque les chercheurs considèrent l'implication subjective des sujets, autant que les mesures comportementales des réponses hypnotiques. Ceci est d'autant plus important lorsque l'on veut étudier plus spécifiquement les aspects dissociatifs de l'hypnose.

La busqueda del hipnotizado virtuoso

Patricia A. Register y John F. Kihlstrom

Resumen: Las medidas de sugestionabilidad hipnótica, basadas en la Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A), se correlacionan sólo moderadamente, con las basadas en la Stanford Hypnotic Susceptibility, Form C (SHSS:C). Los sujetos (N = 148) que estaban en la categoría más alta (10-12) de la HGSHS:A, fueron clasificados como "virtuosos", sólo si obtuvieron el puntaje de la categoría "virtuoso" (11 a 12), en una posterior administración de la SHSS:C. En los ítems que comprenden la subescala de distorsión cognitiva de la HGSHS:A, se encontraron diferencias de grupo significativas, de acuerdo a que fueran evaluados en términos conductuales o de impresiones subjetivas de éxito. Los dos grupos tambien difirieron en las autoevaluaciones de profundidad hipnótica y en las subescalas de la Field's Inventory Scale of Hypnotic Depth, en lo que respecta a los sentimientos subjectivos de pérdida de control, automaticidad, trascendencia del funcionamiento normal y fluctuación de la profundidad. Las evaluaciones de la sugestibilidad son acrecentadas, cuando los investigadores consideran tanto el compromiso subjetivo como las medidas conductuales de la respuesta hipnótica, lo cual es particularmente importante cuando se analizan los aspectos mas disociados de la hipnosis.