Locus of Control, Motivation, and Expectancy: Predicting Hypnotic Susceptibility from Personality Variables

JERRY M. BURGER

Wake Forest University

Subjects were divided into high and low halves on three locus-of-control measures. Susceptibility to hypnotic suggestion was measured following a description of hypnosis as either situationally determined or personally determined. A control group received no description. The results suggest that individual differences in locus of control interacted with the perceived hypnotic situation to produce increased or decreased levels of hypnotic susceptibility. The results are interpreted in support of Endler and Magnusson's person \times situation interactional approach to personality research. In addition, prehypnotic measures of expectancy of susceptibility and motivation to be hypnotized suggest that the person \times situation interaction is mediated by these two variables. No relation between subject's attitude toward hypnosis and susceptibility was found.

One enduring question in personality research concerns the relationship between hypnotic susceptibility and personality. Early research in this area was concerned with correlations between measures of hypnotic susceptibility and various personality trait measures. Nearly all popular personality tests were employed in a search which resulted in generally disappointing results (see Barber, 1964; Dana & Cooper, 1964; and Hilgard, 1965, for reviews). While a few significant correlations between susceptibility and trait measurements have been reported, the occurrence is rarely above a chance level and replications are seldom if ever reported. A related strategy, that of using multiple personality trait measures to predict hypnotic susceptibility (Reis, Wheeler, & Wolff, 1975), has also failed to produce much supportive data.

Barber (1964) suggested that subject differences on measures of hypnotic susceptibility are probably more closely tied to situational, attitudinal and motivational variables than to general trait measures. Subsequent research has generally produced support for Barber's position. Several situational variables, such as the hypnotist's tone of voice, asking the subject to close his or her eyes, and using relaxation suggestions,

The author wishes to thank Harris M. Cooper for his assistance and comments on this research. Requests for reprints should be sent to Jerry M. Burger, Department of Psychology, Wake Forest University, Winston-Salem, NC 27109.

have been found to have an effect upon hypnotic susceptibility (see Barber, Spanos, & Chaves, 1974, for a review).

One productive line of research has examined the relationship between variables such as the subject's general attitude toward hypnosis, the subject's expectancy that he will experience hypnosis, and the subject's motivation to experience hypnosis and hypnotic susceptibility.

Barber and Calverley (1964a) demonstrated the importance of subject attitudes when they found higher susceptibility scores for hypnotic subjects who were told they were being tested for imagination than for subjects who were told they were being tested for gullibility. Diamond, Gregory, Lenney, Steadman, and Talone (1974) reported a significant correlation between a "desirability of hypnosis" scale and a hypnotic susceptibility measure.

Research also generally has found a relationship between subject expectancy and responsiveness to hypnotic suggestions. Barber and Calerley (1964b) reported higher susceptibility scores for subjects who were led to believe that responding to hypnotic suggestions was easy and lower scores for subjects when responding was described as difficult. Similarly, Gregory and Diamond (1973) increased expectancies and subsequent susceptibility scores by giving subjects false test feedback which was said to predict increased susceptibility. Hilgard (1965) found the correlation between self-reported expectancies of susceptibility taken prior to the hypnosis and actual susceptibility measures was small yet statistically significant.

In addition to subject attitudes and expectancies, there is evidence that the willingness of the subject to experience hypnosis is also related to susceptibility. Hilgard (1970) and Calverley and Barber (reported in Barber, Spanos, & Chaves, 1974) found significant correlations between motivation measures and susceptibility scores. Barber et al. argue that while attitudes, expectancies, and motivations may be related, they are conceptually independent.

The research on attitudes, motivations, and expectancies has generally demonstrated a greater predictive value of hypnotic susceptibility for these measures over that of general trait measures. Zuckerman, Persky, and Link (1967) found support for state over trait measures for predicting hypnotic susceptibility when they compared the predictive accuracy of trait affect and state affect scores. Zuckerman et al. reported state measures of hostility and depression from highly motivated subjects, as measured by the Multiple Affect Adjective Check List (Zuckerman & Lubin, 1965), correlated significantly with hypnotic susceptibility scores. In contrast, none of the trait affect measures from the MMPI were found to be related to the susceptibility measure. Neary (1975, reported in Zuckerman, 1976) found that state measures of sensation-seeking were

better able to predict hypnotic susceptibility than were previous attempts with a trait sensation-seeking instrument.

In general, therefore, the evidence tends to suggest that hypnotic susceptibility is better predicted by state, situational and attitudinal measures than by personality trait measures. However, Endler and Magnusson (1976) have suggested an alternative to the state-trait distinction. These researchers have emphasized the importance of the person × situation interaction in personality research. They describe behavior as a function of an interaction process between the individual and the particular situation that the individual encounters. On the person side, cognitive factors are the essential determinants of behavior. On the situation side, "the psychological meaning of the situation for the individual" (p. 968) is the determining factor. One purpose of the following investigation is to apply this interactional model to the question of predicting hypnotic susceptibility.

LOCUS OF CONTROL AND HYPNOTIC SUSCEPTIBILITY

Many researchers have suggested a conceptual link between perceived locus of control and the phenomenology of the hypnotic subject (Austrin & Pereira, 1978; Bean & Duff, 1975; Browning & Friesen, 1974; Diamond et al. 1974; Greene, 1972; Klemp, 1969; Leva, 1975; Ricks, 1970; and Young, Pilling, & Dunn, 1973). The question of who is controlling the subject's behavior is seen as an important feature of the hypnotic setting. However, the results of these investigations have been generally disappointing or inconsistent. Some studies (Bean & Duff, 1975; Diamond et al., 1974) report no correlation between scores from the Rotter Internal-External Locus of Control Scale (Rotter, 1966) and measures of hypnotic susceptibility. Klemp (1969) found that internal females had higher susceptibility scores while Austrin & Pereira (1978) reported higher susceptibility in external females.

Several investigators have attempted a trait × situation interactional analysis with the locus of control variable. However, the results again are inconclusive. Ricks (1970) found no differences between internals and externals when the hypnotic situation was described as either under the subject's control, outside the subject's control, caused by skill, or caused by luck. Young et al. (1973) described hypnosis to their subjects as either subject-controlled or hypnotist-controlled. They found, contrary to prediction, that subjects with extreme external I–E scores in the hypnotist-controlled condition were significantly less susceptible than the subjects in the other conditions. Young et al. explain that the hypnotist-controlled description resulted in a lowering of cooperation (motivation) from the external subjects. However, no manipulation checks were taken to determine if the level of motivation was indeed lower for these subjects. Leva (1975) found no I–E differences when replicating the Young

et al. study with middle-range as well as extreme I-E scores. In addition, Greene (1972), also using extreme I-E scorers, found a significant interaction between hypnotic situations and locus of control for both internals and externals. Greene's results, however, were in the opposite direction from those of Young et al.

Finally, Browning and Friesen (1974) examined the interaction between extreme scores on the Rotter I-E Scale and different hypnotic induction styles. They found that internals were more susceptible to hypnotic suggestion when the induction was phrased in a first-tense ("I am") modality. Externals responded to the suggestions better when a second-tense modality ("You will") was used. Browning and Friesen interpret these results as support for the increased susceptibility with increased congruency concept. Such an interpretation, however, contradicts the Young et al. findings.

Overall, the research examining the relationship between perceived locus of control and hypnotic susceptibility has been limited by three methodological characteristics: the use of extreme scorers, the use of the Rotter I-E Scale, and the failure to examine attitudinal, motivational, or expectancy variables.

First, the three studies which reported significant, although inconsistent, interaction effects all used extreme scorers only in their samples. This approach limits the practical application of these findings, since the theoretical interpolation to subjects falling in the middle ranges on the internal–external dimension is questionable.

Second, factor analyses of the Rotter I-E Scale suggest that it may measure more than one type of locus of control expectancy (Cherlin & Borque, 1974; Gurin, Gurin, Lao, & Beattie, 1969; Joe & Jahn, 1973; Kleiber, Veldman, & Menaker, 1973; Mirels, 1970; and Viney, 1974). One consistent finding is that the external items on the scale may measure more than one type of perceived control. Individuals may believe they have little control over social and political affairs while perceiving a great deal of control over their personal lives. In addition, an external score may indicate a belief in chance control, control by powerful others, or both.

To control for this problem of multidimensionality, Levenson (1972, 1974) developed a set of three locus of control scales. The measure includes an Internal Scale (e.g., "I can pretty much determine what will happen in my life"), a Powerful Others Scale (e.g., "I feel like what happens in my life is mostly determined by powerful others"), and a Chance Scale (e.g., "When I get what I want, it's usually because I'm lucky"). The three scales were designed to measure the degree to which the individual perceives that what happens to him or her is the result of his or her own actions, is controlled by powerful others, or is determined by chance. A Likert 6-point scale is used for each item rather

than the forced-choice method used in the Rotter I-E Scale. Levenson (1974) reports a moderate correlation between the Powerful Others Scale and the Chance Scale (r = .59), and low negative correlations between these two and the Internal Scale, (r = -.14 and -.17, respectively). Results from the use of the Internal Scale are reported to be similar to results using the Rotter I-E Scale, while the Powerful Others Scale and Chance Scale have been found to draw a distinction the Rotter I-E does not (Levenson, 1974).

Third, none of the studies examining the locus of control and hypnotic susceptibility relationship measured the motivations, attitudes or expectancies of the subjects. Comparisons between the different procedures and an examination of the possibility that the effects are mediated by differences in these variables, as suggested by Young et al. (1973), are impossible without such information. Accordingly, measures of attitudes, motivations, and expectancies are taken from the subjects prior to the hypnotic induction in the present experiment.

It is expected that individual differences on measures of perceived locus of control (cognitive factor) will interact with different hypnotic situations to produce different levels of hypnotic susceptibility. Several investigations (Houston, 1972; Rotter & Mulry, 1965; Watson & Baumal, 1967) have demonstrated that persons perform best when they perceive a congruency between the situation and their belief in locus of control. It is therefore predicted that susceptibility scores will increase when the hypnotic situation is described as consistent with the subject's perceived locus of control orientation. Scores should decrease when an inconsistent description is presented.

METHOD

Subjects

Sixty-three introductory psychology students served as subjects. These students were selected randomly from a much larger group who had taken the Levenson (1974) locus-of-control tests several weeks earlier. Subjects volunteered to participate in the experiment in exchange for class credit. None stated having had any previous experience as a hypnosis subject.

Instruments

The Harvard Group Scale of Hypnotic Susceptibility (Shor & Orne, 1962) was used to measure hypnotic susceptibility. The Levenson (1974) scales were used to derive the three different locus-of-control measures for each subject.

Procedure

Five to six weeks prior to the hypnosis, subjects filled out the locus-of-control scales. No connection was made between these measures and participation in the experiment when the subjects were contacted. Subjects were randomly assigned to attend one of three types of hypnosis presentations. Subjects were administered the HGSHS in groups ranging from 5 to 16 in size with the same hypnotist for all groups. The hypnotist was not aware

of any subjects' locus of control scores. After hearing the introductory remarks accompanying the HGSHS and just prior to the beginning of the hypnosis induction procedure, subjects heard one of the following descriptions of the experiment.

External description. To a great extent whether or not you are responsive to hypnotic suggestions depends upon the type of hypnotic induction used by the hypnotist. Today we are testing some different forms of a standard hypnotic induction. Previous research has shown that the induction form which you will be presented with will increase your susceptibility to hypnotic suggestion. We want you to relax as you listen to the hypnotist and try to allow yourself to experience what it is like to be hypnotized. The form of induction that you will be presented with will, with your cooperation, cause you to respond to the hypnotic suggestions to a much greater extent than other induction methods.

Internal description. To a great extent whether or not you are responsive to hypnotic suggestions depends upon your ability to use your imagination. Today we are testing your ability to use your mental skills in response to the hypnotist's suggestions. If you have a great deal of control over these skills you should increase your susceptibility to the hypnotic suggestions. We want you to relax as you listen to the hypnotist and try to allow yourself to experience what it is like to be hypnotized. By learning to control your mental and imagination skills you will be able to increase your responsiveness to hypnotic suggestion.

A third group of subjects heard only the standard HGSHS introduction which stresses neither the external nor internal control description.

Immediately following the reading of the descriptions, each subject filled out a short questionnaire containing the following 7-point response items.

- 1. To what extent do you believe that you can become susceptible to hypnotic suggestions? (very susceptible to not susceptible)
- 2. To what extent do you want to experience what it is like to be hypnotized? (very much to not at all)
- 3. Hypnosis is important because it aids psychologists interested in the relation between mind and body. (agree to disagree)
- 4. Hypnosis is of interest only to those who see it as a different or "freaky" new experience. (agree to disagree)
- 5. Hypnosis has many valuable practical applications such as the alleviation of pain and recalling details from memory. (agree to disagree)

RESULTS

A 2×3 (locus-of-control half \times description) ANOVA was performed for each scale on the dependent measures.

Susceptibility Measure

As Fig. 1 illustrates, there was a highly significant description \times locus of control interaction on the HGSHS susceptibility score for subjects in the high- and low-Internal-Scale halves, F(2, 57) = 5.51, p < .006. There were no significant main effects found for the description and locus-of-control variables. Subsequent Newman-Keuls tests revealed that subjects in the high-internal half averaged significantly higher susceptibility scores when given the internal description than when given the external or no description (p < .05). High-internal subjects receiving the external

description did not differ significantly on the susceptibility measure from the high internals who received no description.

As Fig. 1 also illustrates, subjects in the low-internal half averaged significantly lower susceptibility scores when given the internal description than did low-internal subjects given no description (p < .05). In addition, low-internal subjects receiving the external description scored significantly higher on the susceptibility measure than did the low internals in the no-description condition (p < .05).

Figure 2 illustrates a similar pattern for subjects scoring high and low on the Powerful Others Scale. A highly significant description \times locus of control interaction was again found, F(2, 57) = 5.48, p < .006. Similar to the Internal Scale ANOVAs, no significant main effects were found for the description or locus-of-control variables. Newman-Keuls tests revealed that subjects in the high-powerful-others half scored significantly higher on the susceptibility measure when given the external description than when receiving the internal description (p < .05). Neither group scored significantly differently from the no description subjects in the high-powerful-others half.

Figure 2 also reveals that subjects in the low-powerful-others half scored significantly lower on the susceptibility measure when given the external description than when receiving the internal description (p < .05). Again, neither group scored significantly differently from the low-powerful-others half that received no description.

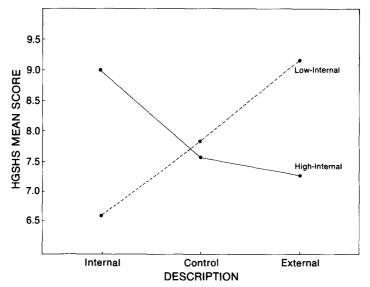


Fig. 1. Mean susceptibility scores for subjects scoring in the high and low halves on the Internal Scale.

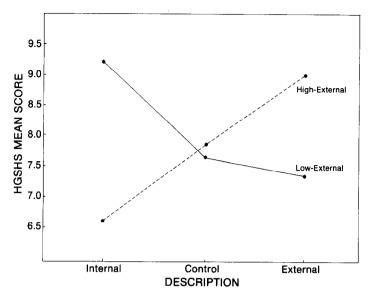


Fig. 2. Mean susceptibility scores for subjects scoring in the high and low halves on the Powerful Others Scale.

Finally, there were no significant description, locus-of-control, or description × locus of control effects on the susceptibility scores when examining subjects divided into halves by their Chance Scale scores.

Following these univariate analyses, intercorrelations between the three locus of control measures were examined. It was found that the Internal Scale and the Powerful Others Scale were significantly negatively correlated, r=-.27. Each of these scales was also significantly correlated with the Chance Scale, r=-.47 and .66, for Internal and Powerful Others, respectively.

Because of the lack of independence between these variables, it was deemed appropriate to examine the susceptibility scores within a hierarchical multiple regression (Cohen & Cohen, 1975).

The first analysis examined the effect of the powerful-others-half \times description interaction with the description, internal-half, description \times internal-half interaction and powerful-others-half effects removed from the susceptibility score. A significant interaction was still evidenced F(2, 51) = 3.52, p < .03. This was followed by a test for the effect of the internal-half \times description interaction with the effects of the description, powerful-others half, powerful-others half \times description interaction, and internal half removed. A significant interaction was again found, F(2, 51) = 3.41, p < .04. Both interactions illustrated in Figs. 1 and 2, therefore, remained significant even when the variance shared by the independent variables was controlled out of the analyses. Because no significant effects were found for the Chance-Scale-half variable on the univariate analyses, this variable was not included in the multivariate analyses.

Expectancy Measure

Subjects reported on a 7-point scale the extent to which they believed that they could become susceptible to hypnotic suggestions. There were no significant main effects for either the description or locus-of-control variables when comparing the expectancy scores of subjects in the high and low halves of the Internal Scale. However, the description \times locus of control interaction for this measure approaches significance, F(2, 57) = 1.40, p < .25. As Table 1 indicates, a planned comparison test revealed that the high-internal subjects receiving the external description reported significantly lower expectancies than did low-internal subjects receiving this description, p < .05.

Again, a similar pattern was found when the expectancy scores for subjects in the high- and low-Powerful-Others-Scale halves were examined. There were no significant main effects for either the description or locus-of-control variables. However, as Table 1 reveals, there was a significant interaction between the description and locus-of-control variables on this measure, F(2, 57) = 4.85, p < .01. Newman-Keuls tests revealed that low-powerful-others subjects reported significantly lower expectancy scores when given the external description than did the high-powerful-others subjects receiving the same description, p < .05. Neither of these groups had scores significantly different from the no-description or internal-description subjects.

No significant description, locus of control or description by locus of control effects were found when examining the expectancy scores for the high and low halves of the Chance Scale.

Because of the lack of independence between the locus of control scales, it was also necessary to examine the expectancy scores within a hierarchical multiple regression. Employing the same analytic strategy used for the suceptibility scores, the internal half \times description inter-

Description	Internal Scale		Powerful Others Scale	
	High	Low	High	Low
	Expectancy Mean Scores			
Internal	2.73	2.82	2.83	2.70
Control	2.70	2.80	2.87	2.67
External	3.30	2.27	1.91	3.70
	Motivation Mean Scores			
Internal	2.54	3.91	3.67	2.70
Control	2.90	2.80	2.88	2.83
External	2.60	2.72	2.18	3.20

TABLE 1
EXPECTANCY AND MOTIVATION MEAN SCORES

Note. For expectancy scores 1 = high expectancy, 7 = low expectancy; for motivation scores 1 = high motivation, 7 = low motivation.

action again failed to reach significance with the other effects removed, F(2, 51) = 1.13, ns. The powerful-others half \times description interaction, however, remained significant with the other effects removed, F(2, 51) = 4.18, p < .02. Again, due to the lack of significant effects in the univariate analyses, no multivariate analyses were conducted for the Chance-Scale-half variable.

Motivation Measure

Prior to the hypnotic induction subjects also reported on a 7-point scale the extent to which they wanted to experience hypnosis. An examination of the motivation scores reported by subjects falling into the high and low halves of the Internal Scale reveals no significant effect for description or locus of control on this measure. A description by locus of control interaction approaches significance, F(2, 57) = 2.08, p < .13. As reported in Table 1, a planned comparison test revealed that high-internal subjects reported significantly greater motivation when receiving the internal description than did low-internal subjects receiving the same description (p < .05).

As Table 1 reveals, a significant description by locus of control interaction was found when examining the motivation scores of subjects in the high and low halves of the Powerful Others Scale, F(2, 57) = 3.32, p < .04. Again, no significant description or locus-of-control main effects were found. Subsequent Newman-Keuls comparisons revealed that subjects in the high-powerful-others half who received the external description reported significantly greater motivation than did high-powerful-others subjects given the internal description (p < .05). Neither group reported motivation scores significantly different from the high-powerful-others group receiving no description.

In addition, as Table 1 also reveals, low-powerful-others subjects given the internal description reported significantly greater motivation than did low-powerful-others subjects given the external description (p < .05). Again, neither group reported motivation scores significantly different from the low-powerful-others group which received no description.

The significant univariate tests on the motivation scores were also subjected to a hierarchical multiple regression. Employing the same analytic strategy used for the susceptibility and expectancy scores, the internal half \times description interaction again failed to reach significance with the other effects removed, F(2, 51) = 1.33, ns. The powerful-others half \times description interaction approaches significance with the other effects removed, F(2, 51) = 2.01, p < .14. Again, the Chance-Scalehalf variable was not included in the multivariate analyses.

Attitude Measure

Prior to the hypnotic induction, subjects answered three questions designed to measure general attitudes about the desirability and value

of hypnosis. A total attitude score was obtained by reversing the direction of the second item and adding the three attitude scores together. AN-OVAs revealed no significant effects for description, locus of control, or description \times locus of control when examining the attitude measures for subjects in the high and low halves for the Internal, Powerful Others, or Chance Scales.

An examination of the intercorrelations between the three items used in the attitude measure suggests that the items do comprise a cohesive measure. The intercorrelations range from .22 to .48, and the correlations of items 3, 4, and 5 with the total attitude measure are .71, .74, and .82, respectively.

Susceptibility Correlates

Each of the three prehypnotic measures was correlated with the susceptibility score. The results of Pearson product-moment correlations suggest that the expectancy of hypnotic susceptibility (r = .41, p < .01) and the motivation to experience hypnosis (r = .44, p < .01) are significantly related to the susceptibility measure. The total attitude toward hypnosis score, however, was not significantly related to this measure (r = .17).

DISCUSSION

The results of the experiment suggest that Endler and Magnusson's (1976) person × situation interactional approach to behavior prediction provides a feasible model for understanding susceptibility to hypnotic suggestions. The results generally suggest that individual differences in perceived locus of control interact with the psychological meaning of the hypnotic situation to produce increased or decreased responsiveness to the hypnotic suggestions. The present investigation found that subjects who believed that they generally controlled the events in their lives were significantly more susceptible to hypnotic suggestion when the hypnotic situation was described as one in which the subject was in control than when given no description. Similarly, subjects who believed that they generally did not control the events in their life were significantly less susceptible to the suggestion than the control group when given the same description. In addition, these low-internal subjects were more susceptible to suggestions than controls when they believed the hypnotic situation was controlled by the hypnotist. Finally, subjects who believed that the events in their lives were generally controlled by powerful others were significantly more responsive to the hypnotic suggestions when they were led to believe that the hypnotist controlled their susceptibility than when they believed that the subject was responsible for the level of susceptibility.

The general pattern which emerges from these data is that the individual tends to become more responsive to hypnotic suggestions when

he or she perceives that responding to the suggestion is consistent with his or her general view of the amount and type of control that is responsible for events in that person's life. Subjects who generally see themselves as responsible for what happens to them respond to the hypnotic suggestions more when they believe they are personally responsible for what happens to them in the hypnotic situation. These subjects tend to be less responsive when they believe that the hypnotist controls their responsiveness. Similarly, subjects who generally perceive their life events as under the control of powerful others tend to increase in hypnotic susceptibility when they believe the hypnotist controls their responsiveness. These subjects tend to be less responsive when told they are in control of the situation.

These results suggest some important theoretical and practical implications. First, one practical application is that experimental subjects of high or low susceptibility may be screened for hypnotic susceptibility through general personality measures rather than through actual hypnosis. In addition, the susceptibility of clinical and experimental hypnotic subjects may be increased by describing hypnosis in terms consistent with the subjects' general view of himself or herself and the world.

Of greater interest, however, are the theoretical implications of the findings. Past research has suggested three important mediating variables—expectancy, motivation, and attitudes—which were examined in the present experiment. The general pattern which emerges from these measures suggests that subjects' expectations and motivations are important mediators in the person by situation interaction. That is, when subjects were led to believe that the hypnotic experience was consistent with their locus of control orientation, their expectation that they would become susceptible to hypnotic suggestion increased. When the subjects believed that experiencing hypnosis was inconsistent with their general locus-of-control orientation, their expectation that they would be responsive to hypnotic suggestions decreased. The relationship between expectancy and behavior has been well documented elsewhere (cf. Jones, 1977).

Similarly, when subjects perceived a consistency between their locus of control orientation and hypnosis, their motivation to respond to the hypnotic suggestions increased. When an inconsistency was perceived, a decrease in motivation developed. This change in level of motivation, coupled with the changes in expectancy, was associated with increased or decreased susceptibility to the hypnotic suggestion. These findings are consistent with the research cited earlier suggesting that subject expectancies and motivations play important roles in determining the level of hypnotic susceptibility.

Interestingly, the general attitude the subjects held toward hypnosis was not related to the susceptibility measure. This finding is inconsistent

with previous research (Hilgard, 1970) which established such a link. One possible reason for this puzzling finding is that the three-item scale used to derive the attitude measure may be insufficient. Scales employed in previous research (cf. London, 1961) have contained a considerably greater number of items.

Another point of interest is the failure of the Chance Scale scores to interact significantly with the description variable. It is felt that this failure is due to the nature of the descriptions used in the experiment. The extent to which individuals believe that what happens to them is determined by chance is seemingly unrelated to either of the two descriptions employed here. A third description of hypnosis as chance-determined may have interacted with the Chance Scale score in a manner similar to the other scales.

The results of the present investigation also lend support to Sarbin and Coe's (1972) role-theory model of hypnotic responsiveness. According to this model, the level of self-role congruence determines the level of motivation the individual has for acting out the role of the hypnotic subject. Within the context of the present study, locus of control can be seen as a perception of self, while the differing descriptions can be seen as leading to different concepts of the hypnotic role. The results then suggest that the more congruent the self and the perceived role, the greater the motivation reported, and the more the role of the hypnotic subject is enacted.

In conclusion, the relationship between personality and hypnotic susceptibility has been demonstrated as a function of a person by situation interaction. The level of perceived general control of life events by oneself or powerful others has been found to interact with manipulated conceptions about the hypnotic situation such that more consistent locus-of-control orientations and situations lead to higher levels of susceptibility. Similarly, when the orientation and situation are seen as inconsistent, a decrease in hypnotic susceptibility is found. Prehypnotic measures indicate that this effect may be mediated by the subject's expectancy that he or she will be responsive to hypnotic suggestions and the subject's motivation to experience hypnosis. The results suggest that further investigations of interactions between other personality variables and perceived hypnotic situations should be encouraged.

REFERENCES

Austrin, H. R., & Pereira, M. J. Locus of control as a predictor of hypnotic susceptibility. American Journal of Clinical Hypnosis, 1978, 20, 199-202.

Barber, T. X. Hypnotizability, suggestibility, and personality: A critical review of research findings. *Psychological Reports*, 1964, 14, 299-320.

Barber, T. X., & Calverley, D. S. The definition of the situation as a variable affecting "hypnotic-like" suggestibility. *Journal of Clinical Psychology*, 1964, 20, 438-440. (a) Barber, T. X., & Calverley, D. S. Toward a theory of hypnotic behavior: Effects on

- suggestibility of defining the situation as hypnosis and defining response to suggestion as easy. Journal of Abnormal and Social Psychology, 1964, 68, 585-592. (b)
- Barber, T. X., Spanos, N. P., & Chaves, J. F. Hypnosis, imagination and human potentialities. New York: Pergamon, 1974.
- Bean, B. W., & Duff, J. L. The effects of video tape and of situational and generalized locus of control upon hypnotic susceptibility. American Journal of Clinical Hypnosis, 1975, 18, 28-33.
- Browning, C. H., & Friesen, D. D. The relationship between hypnotic induction modality and locus of control expectancy. *American Journal of Clinical Hypnosis*, 1974, 17, 108-114.
- Cherlin, A., & Borque, L. B. Dimensionality and reliability of the Rotter I-E Scale. Sociometry, 1974, 37, 565-582.
- Cohen, J., & Cohen, P. Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, New Jersey: Erlbaum, 1975.
- Dana, R. H., & Cooper, G. W. Prediction of susceptibility to hypnosis. Psychological Reports, 1964, 14, 251-265.
- Diamond, M. J., Gregory, J., Lenney, E., Steadman, C., & Talone, J. M. An alternative approach to personality correlates of hypnotizability: Hypnosis-specific mediational attitudes. *International Journal of Clinical and Experimental Hypnosis*, 1974, 22, 346-353.
- Endler, N. S., & Magnusson, D. Toward an interactional psychology of personality. Psychological Bulletin, 1976, 83, 956-974.
- Greene, J. B. Internal-external control and its relation to suggestibility (Doctoral dissertation, University of Oklahoma, 1971). Dissertation Abstracts International, 1972, 32, 4213B. (University Microfilms No. 72-3394)
- Gregory, J., & Diamond, M. J. Increasing hypnotic susceptibility by means of positive expectancies and written instructions. *Journal of Abnormal Psychology*, 1973, 82, 363-367.
- Gurin, R., Gurin, G., Lao, R. C., & Beattie, M. Internal-external control in the motivational dynamics of Negro youth. *Journal of Social Issues*, 1969, 25, 29-53.
- Hilgard, E. R. Hypnotic susceptibility. New York: Harcourt, Brace & World, 1965.
- Hilgard, J. R. Personality and hypnosis. Chicago: Univ. of Chicago Press, 1970.
- Houston, B. K. Control over stress, locus of control and response to stress. *Journal of Personality and Social Psychology*, 1972, 21, 249-255.
- Joe, V. C., & Jahn, J. C. Factor structure of the Rotter I-E Scale. *Journal of Clinical Psychology*, 1973, 29, 66-68.
- Jones, R. A. Self-fulfilling prophecies: Social, psychological, and physiological effects of expectancies. Hillsdale, New Jersey: Erlbaum, 1977.
- Kleiber, D., Veldman, D. J., & Menaker, S. L. The multidimensionality of locus of control. Journal of Clinical Psychology, 1973, 29, 411-416.
- Klemp, R. H. The Rotter I-E scale and hypnotic susceptibility. *Psychological Reports*, 1969, 24, 660.
- Leva, R. A. Correlation between Rotter's I-E scale and the Harvard Group Scale of Hypnotic Susceptibility under three sets of instructions. *Perceptual and Motor Skills*, 1975, 41, 614.
- Levenson, H. Distinctions within the concept of internal-external control: Development of a new scale. *Proceedings of the 80th Annual APA Convention*, 1972, 7, 261-262.
- Levenson, H. Activism and powerful others: Distinctions within the concept of internal-external control. *Journal of Personality Assessment*, 1974, 38, 377-383.
- London, P. Subject characteristics in hypnosis research. Part I. A survey of experience, interest, and opinion. *International Journal of Clinical and Experimental Hypnosis*, 1961, 9, 151-161.

- Mirels, H. L. Dimensions of internal versus external control. *Journal of Consulting and Clinical Psychology*, 1970, 34, 226-228.
- Reis, H. T., Wheeler, L., & Wolff, E. Multiple pathways to hypnotic susceptibility: A new scheme for predicting the depth of hypnosis. American Journal of Clinical Hypnosis, 1975, 17, 175-184.
- Ricks, J. M. Internal-external control and hypnotic susceptibility (Doctoral dissertation, University of Kansas, 1969). Dissertation Abstracts International, 1970, 30, 3393B. (University Microfilms No. 69-21,574)
- Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 1966, **80** (1, Whole No. 609).
- Rotter, J. B., & Mulry, R. C. Internal versus external control of reinforcement and decision time. *Journal of Personality and Social Psychology*, 1965, 2, 598-604.
- Sarbin, T. R., & Coe, W. C. Hypnosis: A social psychological analysis of influential communication. New York: Holt, Rinehart & Winston, 1972.
- Shor, R. I., & Orne, E. C. Manual for the Harvard Group Scale of Hypnotic Susceptibility. Palo Alto, California: Consulting Psychologists Press, 1962.
- Viney, L. L. Multidimensionality of perceived locus of control: Two replications. *Journal of Consulting and Clinical Psychology*, 1974, **42**, 463-464.
- Watson, D., & Baumal, E. Effects of locus of control and expectation of future control upon present performance. *Journal of Personality and Social Psychology*, 1967, 6, 212-215.
- Young, J. I., Pilling, A. K., & Dunn, F. M. Role of internal and external motivation in hypnotic susceptibility. Proceedings of the 81st Annual APA Convention, 1973, 8, 1071-1072.
- Zuckerman, M. Sensation-seeking and anxiety traits and states as determinants of behavior in novel situations. In I. Sarason & C. D. Spielberger (Eds.), *Stress and anxiety*. New York: Halstead, 1976. Vol. 3.
- Zuckerman, M., & Lubin, B. Manual of the Multiple Affect Adjective Check List. San Diego: Educational and Industrial Testing Service, 1965.
- Zuckerman, M., Persky, H., & Link, K. Relation of mood and hypnotizability: An illustration of the importance of the state versus trait distinction. *Journal of Consulting Psychology*, 1967, 31, 464-471.