

Report for Members of the Association for the Psychophysiological Study of Sleep, Gainesville, Florida, March 1966.

STUDY #2

INFLUENCING THE CONTENT OF HYPNOTIC DREAMS:

HYPNOTIC DREAMS ABOUT "ANYTHING" versus "THE MEANING OF HYPNOSIS"

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The Stanford Profile Scales of Hypnotic Susceptibility (Weitzenhoffer & Hilgard, 1963; Hilgard, Lauer, & Morgan, 1963) were developed to objectively assess Ss' reactions to a wide variety of hypnotic phenomena. The scales, administered over two one-hour periods, contain an item in which the S is instructed to have a dream during the hypnotic state. On Day 1 there is no content specified for this dream, it may be about anything. On Day 2 the S is specifically instructed that the dream will be about the meaning of hypnosis for him, either directly expressed or indirectly expressed or symbolized. In an earlier report (Hawthorne House Research Memorandum #22, December 1963) (briefly reported at APSS in 1964) it was noted that judges were able to significantly discriminate hypnotic dreams obtained during Profile Scale administration, when half of these dreams were supposed to be about the nature of being hypnotized for the S and the content of the other half was not specified and could be about anything. The purpose of the memorandum is to present a reanalysis of the earlier data and a replication on a new sample.

In the earlier study, pairs of hypnotic dreams had been obtained from 13 Ss. The overall results for the 5 judges indicated that they had been able to discriminate which member of each dream pair was which, with a P value of .005 for all of the judges combined. It was difficult to assess the meaning of this finding, however, because some Ss had very obvious references to the hypnotic situation in the hypnotic dream which was supposed to be about hypnosis, while most Ss did not have such obvious references (the hypnotic dream instructions called for the S to dream about the meaning of being hypnotized in either direct or disguised form). Therefore it was decided to repeat the analysis using pairs of hypnotic dreams only from Ss who had not given an obvious reference to the hypnotic situation.

This analysis is given in Table 1. The dream pairs of 5 Ss were dropped because at least one dream of the pair contained obvious references to the hypnotic situation, leaving hypnotic dream pairs

1. This report has been privately circulated as Hawthorne House Research Memorandum #42, Laboratory of Hypnosis Research, Stanford University.

from 13 Ss. The total number of pairs correctly sorted are given in the table, as well as the exact binomial probability of such a result on the null hypothesis that the probability of a correct sort is 1/2, i.e., that the judges cannot sort the pairs beyond chance expectation. No individual judge scored at a statistically significant level, although the results of judges D and E are suggestive. Combining the results for the 5 judges by the method of Jones and Fiske (1953) does not yield an acceptable degree of significance for concluding that the judges were able to discriminate the "anything" versus "hypnosis" dreams on the basis of content once the obvious dreams had been removed.

Table 1  
 Correct Sortings of Hypnotic Dreams  
 (Study 1)

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	
Total Correct	3	5	8	9	9	N = 13
Binomial P	.291	.367	.291	.133	.133	

Overall P (Jones & Fiske method):  $\chi^2 = 13.338$  with 10 df,  $P < .20$

In the replication study, pairs of hypnotic dreams from the Profile Scales of 33 Ss were obtained from the Hawthorne House files. Two judges who had participated in the earlier study (Charles Tart and Suzanne Troffer) and one new judge (Janet Melei Cuca) again attempted to sort the pairs of dreams into those about "anything" versus those about the "meaning of hypnosis." At least one and generally two or more of the judges felt there were obvious references to the hypnotic situation in the hypnotic dream pairs of 9 Ss, so these pairs were dropped from the analysis, leaving 24 dream pairs. The results of the judging, in terms of the number of correct sortings for each judge are given in Table 2. By inspection, the results are non-significant.

Table 2  
 Correct Sortings of Hypnotic Dreams  
 (Study 2)

	Judge			
	<u>CT</u>	<u>ST</u>	<u>JC</u>	
Total Correct	13	11	13	N = 24
	N.S.			

A content analysis was also carried out on the hypnotic dreams of this second sample. The categories of this analysis were chosen on the basis of discussion by the judges in the earlier study as categories which they felt would discriminate between hypnotic dreams about "anything" versus those about "hypnosis," as well as a few miscellaneous categories added for completeness. These categories covered the settings, objects, characters, dreamer's actions, dreamer's emotions, events happening to other dream characters, and special characteristics of the dreams. Four judges simply rated whether or not the elements comprising these categories were present or absent in each hypnotic dream, prior to their judging whether it was about "anything" or "hypnosis." The system will not be detailed further, in view of the disappointing results.

The judges showed a high degree of agreement with each other in all the rating categories, the degree of agreement being significant at better than the .01 level in all categories. Of the 32 categories, however, only one came close to discriminating hypnotic dreams about "anything" from those about "hypnosis," and that one at the .10 level, an obviously chance result in such a large number of comparisons. Thus the content analysis was a total failure at discriminating the two types of dreams.

One miscellaneous result of the content analysis should be mentioned. Osborn reported (Hawthorne House Research Memorandum #10, 8/12/63) that tunnels, caves, and holes were more frequently present in hypnotic dreams than in a sample of night dreams gathered from home reports. In the present sample (ignoring the "anything" versus "hypnotic" classification) there were 6 dreams in which at least 3 of the 4 judges agreed that a tunnel or similar topographical feature was present. Table 3 compares this frequency against the same sample of night dreams that Osborn used (from a collection made by Kenneth Colby), and against the sample of hypnotic dreams that Osborn used, for similarity of distribution.

Table 3  
Frequency of Tunnels in Hypnotic Dreams

	Tunnels		
	<u>Present</u>	<u>Absent</u>	
Night dream sample, from Osborn	14	368	$x^2 = 7.257$ with 1 df, p < .01
Hypnotic dreams, present sample	6	60	
	<u>Present</u>	<u>Absent</u>	
Hypnotic dreams, Osborn's sample	32	204	$x^2 = .574$ with 1 df, p < .50
Hypnotic dreams present sample	6	60	

The frequency of tunnels in the present dream sample is significantly greater than in night dreams, but not significantly different than in Osborn's sample of hypnotic dreams, thus confirming her finding. Note however that the category "tunnels" did not discriminate dreams about "anything" from dreams about "hypnosis."

#### Discussion:

In both samples, only a minority of Ss follow the instructions to dream about the meaning of being hypnotized by obviously dreaming about the hypnotic situation. Then too, some of the hypnotic dreams which were "obviously" about being hypnotized occurred when the dream topic was unspecified, although generally the "obvious" dreams were a result of the instructions to dream about hypnosis (in 4 of 5 cases for sample 1 and 7 of 9 cases in sample 2).

If Ss who have obvious dreams are eliminated from the sample, then it appears that psychologically trained judges have little or no ability to discriminate hypnotic dreams about "anything" from those about the "meaning of being hypnotized." Nor could a content analysis system developed on the basis of the first sample by these judges discriminate these dreams. Several possible reasons for these failures will be mentioned.

First, it may be that the judges were simply unskilled and insensitive to the clues present in the dream content. This can neither be proven or disproven, but seems unlikely in view of the training of the judges, who were psychology graduate students, psychologists, a psychoanalyst, and a psychiatric social worker.

Second, it is possible that the hypnotized Ss failed to dream about the meaning of hypnosis, even though instructed to do so, and that the content of their reported dreams was determined by other factors than this suggestion. More specifically, it may have been that the Ss either "obviously" dreamed about the meaning of hypnosis in response to suggestions to do so or failed altogether to do so, or did so in such a thoroughly disguised fashion as to be generally undetectable.

Third, because most of the Ss had only been hypnotized once or twice before the Profile Scale testing, the novelty of being hypnotized and dynamic aspects of the hypnotic situation may have resulted in such a strong need to express something about this that the dreams where the topic was unspecified were actually about the meaning of being hypnotized, i.e., that all the dreams were about being hypnotized despite differential instructions.

Finally, it has been shown elsewhere (Tart, 1965; Tart, in press) that Ss readily discriminate several different "types" of hypnotic dreams, or responses to the suggestions to dream while hypnotized, and that these types of responses are significantly related to Ss' overall suggestibility and the degree to which they feel hypnotized. It may be that the variability added by several types of responses

to the dream suggestions in the present sample was great enough to obscure differences in the dreams about "anything" versus "hypnosis."

It seems apparent, then, that the problem of how Ss express their feelings about being hypnotized via a dream in the hypnotic state is fairly complex, and that post hoc analyses of hypnotic dreams routinely obtained in the course of other experimental work may not prove very fruitful. Future studies must focus specifically on this problem and take into allowance the problems of adaptation to the laboratory and the process of being hypnotized, as well as obtaining much more material from the Ss about the nature of their dream response, including associations to the dreams. Although the present two studies were unsuccessful, future studies taking the complexity of the problem into account should be very rewarding, for the hypnotic dream is obviously a very rich inner experience.

#### References

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