COMPARISON OF TOTAL TIME PERFORMANCE BETWEEN TASK-MOTIVATIONAL INSTRUCTIONS AND HYPNOSIS TRANCE INDUCTIONS

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ABSTRACT

Subjects were given a pre-test to determine their hypnotic susceptibility and then were randomly distributed to one of two groups, task-motivational instruction group (non-hypnosis) or the hypnosis trance induction group. The hypnosis trance group Ss were hypnotized individually, whereas, the task-motivational Ss were individually read a set of motivational instructions and then each S went through eight test suggestions from the Stanford-Hypnotic Susceptibility Scale. Although the task-motivational instruction Ss scored slightly higher in percentage passed, no significant difference was found between the two groups.

INTRODUCTION

Many experimentalists have postulated that hypnosis inductions allow a S to enter into a special trance state that is fundamentally different from the waking state of consciousness, and that as a result many of these Ss increased their responsiveness to test suggestions. Bowers (1966) viewed hypnosis as "an altered state of consciousness within which suggestions have a pecularily potent effect." However, Barber (Shor & Fromm, 1972) used task-motivational instructions in which no attempt was made to place the S into a hypnotic trance state, but instead allowed the S to stay in his waking state. He explained that "a subject who is very responsive to test suggestions has 'positive' attitudes, motivations, and expectancies toward the communication he is receiving." As a result of positive attitudes, motivations, and expectations, the subject allowed himself to think with and vividly imagine those things that were suggested, while letting go of extraneous or contrary thoughts.

The debate still continues over the existence of a trance state. Currently there is no research instrument that has successfully distinguished the trance state from the waking state. Also there has been limited literature (Bowers, 1967) that has questioned the utility of task-motivational instructions. Another study (Spanos & Barber, 1968) partially confirmed Bowers study which suggested that Ss receiving task-motivational instructions were complying to rigid experimental demands. When honesty reports (instructions requesting honesty) were given, the task-motivational instructions did not increase responsiveness above the baseline level.

These studies raised important questions that have not been fully answered and further research is needed. There is, however, considerable literature comparing the hypnosis induction technique to the task-motivational instruction technique (non-hypnosis).

Many experiments (Barber, 1962; Orne, 1965; Fromm & Shor, 1972; Johnson, Maher & Barber, 1972; Spanos & Barber 1972; Cooper & London, 1972; Thorne & Hall, 1974) have shown that the non-hypnosis design using the task-motivational instructions were as effective in performance and test responsiveness as hypnosis inductions. However, there have been a few experiments (Olson, 1971; Mathews, 1970; Mathews, 1973) that have obtained negative results using the task-motivational instructions. Consequently, previous studies have obtained contradictory and often ambiguous results.

The purpose of this study was to control for experimental flaws made in previous experiments. Two groups were compared. One group received task-motivational instructions and the other group received hypnosis-trance inductions. The test suggestions used were standarized and came from the Stanford Hypnotic Susceptibility Scale (SHSS) (Weitzen, Hoffer & Hilgrad, 1963). Experimentalists such as Barber used their own revised test suggestions rather than standarized suggestions. Also, objective as well as subjective scorings were used in some of the previous studies. This study used only objective scoring as dictated by the SHSS scoring sheets. One more important variable that has not been clear in previous literature is the amount of time spent on each test suggestion. It is not clear whether any of the test suggestions were ever repeated or lengthened for any of the Ss in either group. In this study the same test suggestions were read to all Ss once only. This controlled for the amount of time spent so that each group would receive equal time.

No control group was used, since it has been shown consistently that hypnosis groups and task-motivational groups do achieve significantly higher results.

No attempt in this study was made to disprove the concept of trance or to discredit hypnosis. This experiment was done in an effort to improve on the data for this type design and control and clarify variables that were previously somewhat ambiguous.

METHOD

Subjects

The subjects for this study were 36 male and female college students who volunteered to participate in this experiment. There were 20 females and 16 males. The mean age was 21.9 years. They received extra credit from their classes for their participation. They were selected on the basis of their performance on the 12 items of the Harvard Group Scale of Hypnotic Susceptibility (HGSHS) (Shor & Orne, 1962). The HGSHS was administered to two large groups of Ss who were participating in a mass hypnosis induction. Each S had a standardized booklet and the scoring was done according to the HGSHS manual. The mean score for the 36 Ss was 7.2.

All Ss were randomly assigned to one of two groups. The Ss were assigned to either the task-motivational instruction group (non-hypnosis)or the hypnosis trance group. All the Ss were then tested individually on 8 items of the SHSS. The 8 items used were: (a) hand lowering, (b) arm immobilization, (c) finger lock, (d) arm rigidity, (e) hands moving, (f) verbal inhibition, (g) hallucination, and (h) eye catalepsy.

Apparatus

The task-motivational instructions (see appendix 1) were the same instructions used by Barber (Fromm & Shor, 1972) in his experiments. These instructions were read to each S in his waking state and were aimed at producing positive attitudes, motivations, expectations, and a willingness to try to imagine what the test items said.

The hypnosis-trance inductions (see Appendix 2) were a set of instructions aimed at achieving eye closure and what is referred to as the trance state. These instructions included a few key statements from the SHSS mannual.

Procedure

All volunteer Ss were asked to participate in a mass hypnosis induction to determine their level of susceptibility. A professor, who was a member of the American Society of Clinical Hypnosis, did the mass induction. A total of two mass inductions were done on separate days. Misconceptions concerning hypnosis were talked about and any questions that the group had were answered. The mass inductions were done using the HGSHS manual and Form A response booklet. After collecting the response booklets the Ss were then told that many of them would be asked to participate in other steps of the experiment and to check the experimental bulletin board to see if their names were posted. If so, they were to be tested individually in one of the time slots.

Subjects were randomly assigned to one of two groups, task-motivational instruction (non-hypnosis) group or hypnosis trance induction group. Each S was seen individually and seated in a comfortable chair. All Ss in the task-motivational group were asked to close their eyes to help aid in concentration and minimize distractability. The task-motivational instructions were then read (see Appendix 1).

Following these instructions each S was given 8 test items from the SHSS (Form A). Each test item was read only once and the S scored either a Pass or Failure on each item as dictated by the SHSS scoring sheets.

Subjects assigned to the hypnosis trance group went through the same procedure except that they were given hypnosis inductions (see Appendix 2). They were administered the same 8 test items which were read only once and scored as a Pass or Failure as determined by the SHSS scoring sheets. Each S was then thanked for his participation and cooperation in the experiment.

RESULTS

As shown in Table 1, the percentage of Ss passing each test suggestion is fairly even for both groups. The trance-induction group scored slightly higher in hand lowering and arm immobilization. The task-motivational group scored slightly higher in finger lock, arm rigidity, moving hands, verbal inhibition, and hallucination. Both groups scored the same in eye catalepsy. As shown in Table 2, the mean score for the task-motivational group was 5.33 out of a possible eight test suggestions, whereas, the mean score for the hypnosis-trance group was 4.83. Although Ss who were administered the task-motivational instructions obtained slightly higher group means, this difference was minimal and not statistically significant. A statistical t-Test was done as shown in Table 2, but no significant difference was found between the two groups.

TABLE I

Percentage of Subjects Passing Each Test Suggestion

Test-Suggestions	Percentage of Subjects Passing	
	Task-Motivational Instructions	Trance-Induction Procedure
1. Hand Lowering	83	100
2. Arm Immobilization	28	33
3. Finger Lock	72	67
4. Arm Rigidity	72	67
5. Moving Hands (Together)	78	61
6. Verbal Inhibition (Name)	67	50
7. Hallucination (Fly)	61	39
8. Eye Catalepsy	67	67

TABLE 2

GROUP MEANS AND STANDARD DEVIATIONS

GROUPS	$\bar{X}$	SD
I (TASK GROUP)	5.33	2.38
II (HYPNOSIS GROUP)	4.83	1.89

t-TEST STATISTICS

GROUPS	t	df	a=.01	a=.05
I > II	.92	36	4.08*	7.31**

* $P > .01$.
** $P > .05$.

DISCUSSION

The results in this study indicated that using test imagery in the waking state with motivational instructions can achieve results equivalent to hypnosis in the trance state. This implied that hypnosis is not exclusive in increasing responsiveness in Ss. Also it implied that Ss in the waking state can be as susceptible as Ss in the trance state.

Even though the results were not significantly different, the rationale behind the task-motivational instructions seemed to be more plausible. If a subject has favorable or positive attitudes, motivations, and expectations toward the test suggestions he receives, his performance on the test suggestions are increased. This explanation is different from the hypnotic explanations of many previous studies. Evans (Fromm& Shor, 1972) viewed hypnosis as an "altered subjective state of awareness." Shor (Fromm & Shor, 1972) viewed the hypnotic state "as having three dimensions - hypnotic role-taking, trance, and archaic involvement." Evans and Shor's explanations were ambiguous and were not clearly defined. However, regardless of differences in theoretical rationales both induction techniques did achieve increased responsiveness in Ss to test suggestions.

It was interesting to note that in the present experiment the total percentage passed was higher for the task-motivational instructions (65%) as compared to the hypnosis group (61%). This finding was in agreement with Barber's research, however, it was not statistically significant. A pre-test was given to all Ss in this experiment to determine their level of susceptibility so that the highest susceptible Ss would be used.

Several of the lowest susceptible Ss were not asked to participate in the experiment. This would explain why the results of this experiment were slightly higher than the results of Barber's study.

One area that needs to be explored is how similar or different imagery or imaginative involvement is from the trance state. It may well be that there are no differences between the state a highly motivated subject allows himself to be in from that of the hypnosis trance state. Physiological tests (Fromm & Shor, 1972) such as EEG, blood pressure, heart rate, and skin temperature have been done in an effort to distinguish or clarify the two states. Physiological functioning during the trance state varied in the same way as in the waking state. The results from these tests indicate to the nonstate theorists that there isn't any difference between the waking state and trance state. However, the state theorists claim that these physiological tests are not adequate enough to distinguish the waking state from the trance state and other instruments and tests need to be developed.

Spanos and Barber (1974) discussed the concept of hypnosis and trance. They admitted that some studies have indicated that a substantial proportion of Ss with positive attitudes and a willingness to cooperate do not exhibit a high level of hypnotic suggestibility. A willingness to cooperate constitutes an important but not sufficient condition for hypnotic performance. This supported the views that the state theorists have regarding the hypnotic-trance state.

Spanos and Barber stated that the state theorists have not adequately defined the terms hypnosis and trance state.

It has been stated (Spanos & Barber, 1974) that "there are state and nonstate theorist who seem to be converging in their conceptualizations of the cognitive processes that mediate hypnotic performance." However, they admitted that there is a great deal about hypnotic phenomena that remains to be learned.

Another area of controversy is over demand type statements in the task-motivational instructions. Bowers (1967) reported that task-motivated Ss scored significantly greater than Ss receiving honesty report conditions. These Ss were told to hallucinate and ratings were given on the reality of visual and auditory hallucinations. Bowers concluded that "it indeed seems likely that the high ratings achieved by the task-motivated Ss in Barber and Caverley's (1964) study reflected more a response alteration in accordance with regnant experimental demands than they did actual cognitive or perceptual change."
Thus, Bowers believed that results of verbal reports of hallucinatory activity by task-motivated Ss are much influenced by the content in which the report is made.

Spanos and Barber (1968) did a similar study and found that when honesty reports were demanded, neither a hypnotic-induction nor task-motivational instructions raised reports of auditory hallucinations above the baseline level. However, they did find that a hypnotic induction, but not task-motivational instructions, raised reports of visual hallucinations significantly above the baseline level when honesty reports were demanded. Part of this experiment confirmed the previous study (Bowers, 1967). This raised questions again about the utility of the task-motivational instructions.

The nonstate theorists pointed out that imaginative involvement is a more clearly defined term than hypnosis and that imaginative involvement is the only personality measurement that has consistently yielded positive correlations with hypnotic suggestibility. The positive correlations indicate more than just a casual relationship to the nonstate theorists. Spanos and Barber discussed the possibility that when a subject is told that he is in a hypnosis situation and that he will be hypnotized this message may convey to him that he is a participant in an important experiment in which unusual responsiveness to suggestions is expected. Also, it may convey that if he does not perform as expected, the experimenter will be disappointed and will categorize him as a "poor" subject. The discussion presented in these two studies were similar and necessitates further research.

The issue of hypnotic-trance versus imaginative involvement still remains open to question. This experimental study supported the majority of the current research comparing task-motivational instructions to hypnosis-trance inductions. Although theoretical differences still remain, the majority of the current literature does not support these differences and further research is needed.

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APPENDIX 1

TASK-MOTIVATIONAL INSTRUCTIONS

In this experiment I'm going to test your ability to imagine and visualize. How well you do on the tests which I will give you depends entirely upon your willingness to try to imagine and to visualize the things I will ask you to imagine. Everyone passed these tests when they tried. For example, we asked people to close their eyes and to imagine that they were at a movie theater and were watching a show. Most people were able to do this very well; they were able to imagine very vividly that they were at a movie and they felt as if they were actually looking at the picture. However, a few people thought that this was an awkard or silly thing to do and did not try to imagine and failed the test. Yet when these people later realized that it wasn't hard to imagine, they were able to visualize the movie picture and they felt as if the imagined movie was as vivid and as real as an actual movie. What I ask is your cooperation in helping this experiment by trying to imagine vividly what I describe to you. I want you to score as high as you can because we're trying to measure the maximun ability of people to imagine. If you don't try to the best of your ability, this experiment will be worthless and I'll tend to feel silly. On the other hand, if you try to imagine to the best of your ability, you can easily imagine and do the interesting things I tell you and you will be helping this experiment and not wasting any time. (Fromm & Shor, 1972).

APPENDIX 2

HYPNOSIS TRANCE INDUCTIONS

Misconceptions concerning hypnosis were discussed during our mass inductions and all questions presented by the subjects were answered. At the individual sessions subjects were asked if they had any further questions. Subjects were then asked to try to become as relaxed and comfortable as possible and to clear all thoughts from their minds. Nothing will be done that will in any way cause you the least embarrassment... You will be able to experience many interesting things... The subject will be asked to fixate on a point on the wall and suggestions of relaxation, eye-heaviness and eye-closure will be given. As you relax more and more the strain in your eyes is getting heavier and heavier... You would like to close your eyes and relax completely... Suggestions of relaxation, drowsiness, and sleep will be administered repeatedly. You are comfortable, relaxed, thinking of nothing, nothing but what I say... drowsy... deep sound comfortable sleep... deeper and deeper... relaxed completely, relax every muscle in your body... relax the muscles of your legs... arms... neck... chest... As you relax a feeling of heaviness comes over your body... As you relax you will be able to attain a deeper relaxation... a deeper sleep... You will not awaken until I tell you to do so. You will wish to sleep and will have many interesting experiences. (Weitzenhoffer & Hilgrad, 1963)