

SUGGESTIBILITY DURING THE EXECUTION OF A POSTHYPNOTIC SUGGESTION

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Suggestibility During the Execution of a Posthypnotic Suggestion

by C Larry Smyth

A THESIS

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Abstract

Suggestibility During the Execution of a Posthypnotic Suggestion

by

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To determine if the execution of a posthypnotic suggestion is accompanied by a transient reinstatement of hypnosis, 11 S's were given a test suggestion before, during, and after the execution of each of four posthypnotic suggestions differing in difficulty and anxiety-producing properties. Each set of suggestions was either preceded (Trial A) or followed (Trial B) by the administration of the same suggestions under hypnosis (Baseline). Results: there was a heightening of suggestibility rather than a reinstatement of hypnosis for most subjects; anxiety and difficulty were noninfluential; psychopathology was manifested; order effect of Trials A and B was marked and provocative.

In 1889 Moll (1958) discussed the views of kindred professionals as well as his own on the condition of the subject (S) while carrying out a posthypnotic suggestion (PHS), and he concluded that a variety of states may supervene. He singled out four of these alleged states:

(1) a state is which a new hypnosis characterized by suggestibility came on during the carrying out of a suggestion, loss of memory afterwards, and no spontaneous waking; (2) a state in which no symptom of a fresh hypnosis was discoverable, although the suggestion was carried out; (3) a state in which the post-hypnotic suggestion was carried out, whith complete forgetfullness of the act, with or without fresh suggestibility to suggestion, and from which the waking was spontaneous; (4) a state of susceptiblity to suggestion with loss of memory following. In judging these states I think the chief symptoms are, firstly, the fresh suggestibility, and secondly, the subsequent loss of memory (pp. 147-148).

Erickson and Erickson (1941) challenged this potpourri of observations with a precisely formulated hypothesis and supporting documentation of an observational nature. They contended that ". . . the post-hypnotic response consists of the spontaneous and invariable development, as in integral part of the performance of the suggested post-hypnotic act, of a self-limited, usually brief, hypnotic trance." The trance occurs at the moment of the initiation of the posthypnotic act and is usually of only brief duration; however, its difficulty or obstacles set in the way of its execution can

prolong the trance or produce a succession of brief spontaneous trances. This trance can best be demonstrated via interference with the execution of the post-hypnotic act or after the initiation of the posthynotic act. This influential hypthesis will henceforth be referred to as the reinstatement hypothesis.

Reyher (1968) questioned the reinstatement hypothesis for several reasons: (1) the execution of a PHS, unlike the execution of a hypnotic suggestion, frequently is accompanied by a spontaneous rationalization for the suggested behavior; (2) a PHS often is accompanied by a compulsive urge in contrast to the passive- compliant execution of the same suggestion by S in the hypnotic state; (3) the frequent occurrence of symptoms in connection with an anxiety-producing PHS that is not executed. Reyher (1968), like Moll, concluded that a PHS may be executed in a variety of states, and he avered that the intrinsic difficulty of the suggested behavior and its anxiety-producing properties may be influencing variables.

In a series of pilot studies, Reyher (1968) found no support for the reinstatement hypothesis. In Lyke's investigation (Reyher, 1968), five Ss were trained to scratch the backs of their right hand upon entering hypnosis, regardless of how it was induced. After these training experiences, one S was given five different PHSs: laughing, arm rigidity, thirst, amnesia, and removal of his right shoe. At no time during the execution of these did S scratch his hand. Another study by Meyer, Laywell, & Sander (Reyher, 1968) induced a hallucinated scene of climbing out of a pool on a cold day with suggestions aimed at producing shivering and the sensation of being cold. The response of shivering was then conditioned to the onset of hypnosis. Two PHSs were given: pick up an object from a nearby table, examine it, and hand it to the experimenter; remove a shoe to scratch an

intense itch. In neither case did the <u>Ss</u> show any sign of shivering or report a sensation of being cold. In the next study by Karl, Nagle, Smeltzer, & Tilker (Reyher, 1968), blushing was associated with the onset of hypnosis. Two PHSs were given: an anesthesia and walking across the room to pick up an object and hand it to the experimenter. None of the <u>Ss</u> produced blushing upon execution of the PHSs. Cory (Reyher, 1968) had subjects rate the degree of pain to a painful stimulus before hypnosis, during hypnosis, and at various times during the posthypnotic period.

Before each application of the painful stimulus, <u>S</u> was given the suggestion that his hand was anesthetic. According to the reinstatement hypnothesis, <u>S</u> should report less pain during the execution of the PHS of total body immobility. The results were negative.

A recent study (Reyher, Beere, Morishige, Smyth, & Woudenberg, 1968) revealed that a reinstatement of sorts does occur. The study observed Erickson's contention that "the measurement of this psychological state is best achieved by interference with the posthypnotic suggestion." Five Ss capable of reaching a deep level of hypnosis were given a PHS to erase hallucinated numbers on a blank sheet of paper. During performance of this suggestion, E gave four interfering suggestions to S: a hallucinated candle, a hallucinated voice, a hallucinated glass of water, and a paralysis of the legs. Four of the five Ss accepted all the interfering suggestions; the fifth S accepted only the leg paralysis. Although a state of hypersuggestibility existed during the execution of the PHS, three of the Ss did not display the lethargic motility and lack of spontaneity characteristic of a hypnotic state. These data strongly support the reinstatement hypothesis, but no conclusions can be drawn until the suggestibility of S is assessed before, during, and after the execution of a PHS.

Hypotheses:

- H1. The suggestibility of a subject during the execution of a posthypnotic suggestion is a direct function of its difficulty.
- H2. The suggestibility of \underline{S} during the execution of a posthypnotic suggestion is an inverse function of its anxiety and/or guilt-producing properties.
- H3. A reinstatement of hypnosis occurs only when the posthypnotic suggestion is difficult and does not arouse anxiety and/or guilt.

Method

<u>Subjects</u>. Complete posthypnotic amnesia and the successful execution of four experimental suggestions in both the hypnotic and posthypnotic states were the criteria for selection of eleven <u>S</u>s from a volunteer student population.

<u>Procedure.</u> \underline{S} was seated next to a table upon which lay a pen and several sets of neatly typed papers. \underline{E} identified one set as belonging to himself and the other set as scratch papers. The papers identified

as <u>E</u>'s had the appearance of a manuscript and on an attached slip of paper there was written, "Important, don't touch." <u>E</u> drew <u>S</u>'s attention to them by asking him to hand over the papers and making the comment that one set belonged to him and were important. Upon receiving the papers, <u>E</u> put them out of sight. While <u>S</u> was hypnotized, <u>E</u> returned either set to the table unless an experimental suggestion required them to be hallucinated. After <u>S</u> was hypnotized, the first of four experimental suggestions was randomly selected and implanted (Initial Phase). These were:

- 1. Relatively low difficulty and high anxiety-producing potential.

 "You will now find that whenever I rap on the table once you will pick

 up the pen on the table beside you and mark on those important papers

 of mine also on the table beside you. You will find yourself continuing

 to mark on them until I rap on the table twice."
- 2. Relatively low difficulty and low anxiety-producing potential.

 "You will now find that whenever I rap on the table once you will pick up the pen on the table beside you and mark on those scratch papers also on the table beside you. You will find yourself continuing to mark on those scratch papers until I rap twice on the table."
- 3. Relatively high difficulty and high anxiety-producing potential.

 "You will now find that whenever I rap once on the table you will see
 a pen and those important papers of mine on the table beside you that
 you saw earlier (visual hallucination). You will pick up the pen and
 begin marking on those important papers until I rap twice on the table
 at which time the pen and papers will vanish."
- 4. Relatively high difficulty and low anxiety-producing potential.

 "You will now find that whenever I rap on the table once you will see
 a pen and those scratch papers on the table beside you that you saw

earlier (visual hallucination). You will pick up the pen and begin marking on those scratch papers until I rap twice on the table at which time the pen and papers will vanish."

The four experimental suggestions were presented to $\underline{S}s$ under either of two conditions. In Condition A, \underline{S} was given a verbal inhibition as a test suggestion to assess degree of suggestibility before, during, and after the execution of each experimental suggestion. The experimental suggestion was activated twice, once under hypnosis (Hypnotic Phase) and once in the waking state (Posthypnotic Phase). Condition B was the same as Condition A except that the order of the hypnotic and posthypnotic phases was reversed. Reversing the order of the hypnotic and posthypnotic phases meant that an \underline{S} in Condition B first experienced the test suggestion in the waking state rather than the hypnotic state. The two conditions were counterbalanced in the ABBA and BAAB orders.

The instructions for the test suggestion were, "You will notice now that if you should try to speak, you will be unable to do so. Go ahead and try to say your name and address." If S was unable to overcome the challenge after 20 seconds, E terminated the suggestion. S received a score of zero if he could not give any of the requested information, 1 if he could only give his full name, 2 if he could give his full name and street address, and 3 if he could give his full name, street address, and city and state.

In the Hypnotic Phase, the test suggestion was given, followed two minutes later by the experimental suggestion. The test suggestion was introduced a second time during the execution of the experimental suggestion when S's behavior indicated the experimental suggestion had been activated. This was usually three to four seconds after the cue activating the experimental suggestion was given. The test suggestion was given a third time

two minutes after the termination of both the experimental suggestion and the second test suggestion. Twenty seconds were again allowed for the test suggestion which was followed by a suggested amnesia for the experimental suggestion.

The Posthypnotic Phase began with the termination of hypnosis and the assessment of the amnesia for the hypnotic phase. In order to promote a rapid return of \underline{S} to his waking level of suggestibility, \underline{E} and \underline{S} took a coke break or short walk lasting about five minutes. Upon returning to the laboratory, \underline{S} was again given the test suggestion. Two minutes later the cue for the experimental suggestion was presented followed shortly thereafter by the test suggestion. The test suggestion was given once more two minutes after the termination of the experimental suggestion. The experimental design is schematized in Table 1.

/Insert Table 1 about here/

Results

All Ss carried out the four experimental suggestions in both the Hypnotic and Posthypnotic Phases, and experienced complete posthypnotic amnesis for them. The reinstatement hypothesis was supported by only two Ss, one each from the ABRA and RAAB groups. Using Duncan's New Multiple Range Test (Edwards, 1964), significant differences at the 0.05 level were found between the periods of the Hypnotic Phase and the posthypnotic phase (Table 2). Comparisons of the periods within the Hypnotic and Posthypnotic phases were not significant with the exception of periods 2 and 3 of the Posthypnotic Phase, which just reached significance at the 0.05 level. The marked increase in suggestibility during period 2 in the Posthypnotic Phase is wholly a function of the two Ss who behaved according to the reinstatement hypothesis.

The four experimental suggestions did not differ in degree of suggestibility during their execution. In the Hypnotic Phase, none of the Ss were able to break the verbal inhibition during execution of the experimental suggestions.

/Table 2 about here/

The two experimental conditions were presented to the first six Ss in the ABBA order. Since five of the six Ss experienced a continuation of suggestibility immediately after termination of the formal hypnotic state, supplementary visual and auditory hallucinations (a coin, a lighted candle, and a voice) also were suggested before, during, and after the execution of the experimental suggestions in the posthypnotic state to determine if the continuation of suggestibility was specific to the test suggestion. Four of the five Ss were generally suggestible throughout the Posthypnotic Phase; that is, not only were they unable to overcome the suggested verbal inhibition of the test suggestion before, during, and after the experimental suggestion's execution, but they accepted the supplementary suggestions given them at any time during this phase. One S was specifically suggestible; that is, he was unable to break the verbal inhibition and accepted supplementary suggestions only during execution of the experimental suggestions, thus partially supporting the reinstatement hypothesis.

The BAAB order was adopted for the remaining five Ss to determine if the continuous suggestibility of the ABBA group was an order effect. The results were clear: none of the Ss run in the BAAB order experienced a continuation of suggestibility upon termination of the formal hypnotic state. An analysis of variance (Table 3) shows this order effect is significant well beyond the 0.05 level. Both posthypnotic periods 1 and 3

of the BAAB order differed significantly (Table 4) from all three posthypnotic periods of the ABBA order, and posthypnotic period 2 of the

/Insert Table 3 about here/

BAAB order differed sigificantly from posthypnotic period 2 of the ABBA order at the 0.05 level.

/Insert Table 4 about here/

Anxiety and anger were often aroused in <u>S</u>s, and a variety of symptoms was displayed. Six <u>S</u>s verbalized general somatic complaints such as "I feel upset about something"; "my head aches a little"; "I don't feel so good." Two <u>S</u>s displayed marked body tension in their hands and forearms, and one <u>S</u> developed a tic in his upper lip. Three <u>S</u>s reported spontaneous positive hallucinations and one <u>S</u> had a negative visual hallucination of the pen while under hypnosis. During the Posthypnotic Phase, another <u>S</u> described the lines of the walls in the experimental room as "jumping and moving all over the place." On two separate occasions an <u>S</u> stated he saw a hole in <u>E</u>'s forehead with blood dripping onto his face and shirt.

Spontaneous hypnotic dreams were reported by two <u>Ss.</u> One <u>S</u> dreamt "I saw a girl go onto a stage. I wanted to tell her something important so I tried to get hold of another girl she worked with, but I was unable to. I felt frustrated when I was unable to deliver the message." Another <u>S</u> reported a series of three dreams: "I dreamt you (<u>E</u>) kept trying to wake me up. I got very mad and threw you off a cliff into the sea"; "I kept seeing red and blue; then these colors formed a knife with a red edge and blue handle"; "I saw this big wheel, like a steam roller, coming after me. I kept running and running and I felt very frightened."

Eight Ss responded to the experimental suggestion of defacing E's "important papers" with a compromise between impulse and defense. They marked on the corners or between the lines. Two Ss completely defaced

the papers, and one \underline{S} sublimated the impulse by crossing "t's" and dotting "i's".

The <u>Ss</u> responded with more anxiety to the test suggestion than to the experimental suggestions. Three <u>Ss</u> exhibited profuse eye blinking and stated they felt like "going back to sleep" whenever the test suggestion was given.

Discussion

The results clearly led to the rejection of all three hypotheses.

Variation in putative anxiety-producing potential and difficulty of the experimental suggestions failed to influence Ss' degree of suggestibility during the posthypnotic execution of the suggestions. The fact that two Ss supported the reinstatement hypothesis indicates that a fresh hypnosis may occur for some Ss while executing a PHS and that an understanding of this devolves into how different personality structures accommodate a given PHS.

There is some doubt that hypnosis was reinstated for the two Ss in question since neither of them displayed the lethargic motility or lack of spontaneity characteristic of their hypnotic states. This replicates Reyner et al.'s (1968) findings and partially supports Moll's (1889) hypothesis.

Moll hypthesized that one of several psychic states ranging from the hypnotic to the waking state can become regnant during execution of a PHS, depending on the nature of the PHS itself. In the present investigation, seven Ss displayed attributes of both the hypnotic and waking states, and four Ss displayed attributes of the waking state only. The psychic state that resulted remained constant for each S during the execution of all four experimental suggestions. For example, an S who

was hyper-suggestible and spontaneous during the posthphotic execution of one experimental suggestion displayed the same characteristics during the posthypnotic executions of the other experimental suggestions. Thus, the individual's psychic state found during execution of the PHSs appeared to be constant, irrespective of the nature of the suggestion, and contained characteristics of both the waking and hypnotic states.

Conditioning of the test suggestion to the hypnotic state provides a viable explanation for the highly signficant order effect. Reyher (1963) hypthesized hypnosis to be a manifestation of the ascendance of lower levels of neuronal integration which become dominant in the overall organization of brain functions. To explain rapid hypnotic induction, Rether further theorized that a discrete cue could be used to reactivate instantaneously the brain mechanisms associated with hypnosis. Through sensory deprivation, Sanders & Reyher (1969) produced the putative reorganization of brain functions, began induction procedure with S in this state, and succeeded in hypnotizing 10 initially resistant subjects. Sanders & Reyher (1969) also found that these subjects retained their hypnotic susceptibility one week later. They argued that, like rapid induction, the organization of brain mechanisms underlying this enhanced susceptibility had become associated with the induction procedure and was reactivated when the induction procedure was begun, thereby reinstating hypnosis. In the present study, Ss of the ABBA order were first presented the test suggestion while in the hypnotic state. The repetition of the test suggestion under hypnosis conditioned it to the hypnotic state. When the test suggestion was given in the waking state, the putative reorganization of brain functions ensued as indicated by S's profuse eye blinking, eye closure, and verbalized feelings of tiredness. As one \underline{S}

succinctly stated, "Whenever you say that (the test suggestion), feel like closing my eyes and going back to sleep."

So of the BAAB order were presented the test suggestion three times in the waking state before receiving it in the hypnotic state. For these so the test suggestion became associated with the waking state due to these initial presentations, and the conditioning of the test suggestion to the hypnotic state was inhibited.

This possible conditioning effect places particular importance on how the PHS is presented in the hypnotic state. If the PHS is verbally repeated a number of times, or S actually performs the suggestion under hypnosis, it is likely that the suggestion and cues will become conditioned to the hypnotic state. Thus Erickson's contention that hypnosis inivitably occurs may reflect his technique of implanting the post hypnotic suggestion rather than the nature of post hypnotic suggestion per se. It is of interest to note that a number of investigators have mentioned the efficacy of repetition when implanting posthypnotic suggestions.

Haley (1958) theorized that the "double bind" was essential to hypnotic inductions, and define it as a message one person communicates and then qualifies with an incongruent message in a situation where the other person must respond to these contradictory messages, cannot leave the field, and cannot comment on the contradition. The test suggestion qualifies as such a message. S is told he cannot speak, and then is commanded to state his name and address in a experimental setting that includes the other qualifications. Thus, the test suggestion may have functioned as an abbreviated hypnotic induction producing the continuation of suggestibility found in Ss of the ABBA presentation order. However, this explanation fails to account for the absence of continued suggestibility of Ss in the BAAB order.

The simulation hypothesis does not explain these data. The use of a test suggestion before during and after the experimental suggestions creates demand characteristics in the direction of the reinstatement hypothesis, which was supported only by two Ss. The inclusion of four experimental suggestions would suggest that we also were interested in differential effects, but none of the Ss responded differentially. The Ss who were administered the two conditions in the ABBA order first encountered the test suggestion in hyposis; consequently, according to the simulation hypothesis, this would lead them to expect that in the subsequent waking period they should react differently, by breaking the verbal inhibition. On the contrary, with one exception, they remained generally suggestible, The BAAB group should respond in the same manner except that in the subsequent hyposis they would be unable to break the challenge which they could easily do in the preceeding waking state. This is the only prediction of the simulation hypothesis that is supported.

Reyher (1967, 1968, and 1969) argued that simulating Ss are inappropriate because the request to simulate and fool a coexperimenter or his confidant substantially alters the demand characteristics of the research for the simulators. Adding to this the utilization of Ss insusceptible to hypnosis, unknown and distinguishing personality characteristics are apt to be correlated with the dependent variables. Also, simulators either overplay their roles or do not respond at all because the behavior is not within conscious control, i.e., posthypnotic conflict and the influence of PHSs on nocturnal dreams. Finally, agreement of data between simulators and hypnotic Ss is only phenotypic identity, not genotypic identity. The use of simulating Ss is of limited value in interpreting psychological research.

It can be argued that Erickson's reinstatement hypothesis was not adequately tested because the test suggestion was not given simultaneously with the PHS. The hypothesized reinstatement of hypnosis may have occurred in the few seconds before the test suggestion was given, or possibly after the test suggestion was terminated. An improved design would insure that the activation of the PHS, interference with suggestion's execution, and assessment of the psychic state occur simultaneously. Moreover, the interference with the PHS should be in the form of deferring or blocking S's posthypnotic response rather than in the form of a test suggestion which is a competing suggestion that does not necessarily interfere with S's execution of the PHS.

The basic difference between Moll's and Erickson's hypotheses is whether characteristics of the waking and hypnotic state occur simultaneously or alternately. Moll believes that the psychic state regnant during execution of PHSs is constant, may simultaneously contain characteristics of both the hypnotic and waking states, and is determined by the nature of the PHS. Erickson contends the state is variable, alternately containing characteristics of the hypnotic and waking state, and the hypnotic characteristics are inevitable though their duration, is determined by "interference" with the execution of the posthypnotic suggestion. The results of this research indicate that the psychic state regnant during execution of PHS is constant, may simultaneous contain characteristics of the waking and hypnotic states and is determined by the S's personality structure, not by the nature of the PHS. None of the S's displayed the lethargic motility or lack of spontaneity which characterized the formal hypnotic state. The one hypnotic characteristic displayed during execution of the PHS was hypersuggestibility.

Psychopathology resulting from hypnotically induced conflicts has been reported by a number of researchers. Using paramnesias which aroused strong conflicting emotions, Eisenbud (1937) and Wolberg (1947) reported several case studies in which psychosomatic symptoms were produced. Reyher (1958, 1962, 1967) developed an experimental procedure that is particularly effective in producing pathological posthypnotic disturbances. The effectiveness of these procedures has been verified by Moore (1964), Perkins (1965) in press, and Sommershield (1969). From his research, Reyher (1969) concluded that the necessary and sufficient variables for producing psychopthology were hypnosis, hypnotic arousal of intense anger through verbalization of cue words, anger directed toward an authority figure, loss of control, posthypnotic arousal of anger, posthypnotic suggestion of a destructive impulse, and amnesia. Veenstra (1969) hypothesized that anger alone would be sufficiently anxiety-arousing to produce psychopathology without directing it towards an authority figure and without coupling it with a destructive impulse. Veenstra's results were negative and he concluded that anger alone was not an essential pathogenic variable.

The present investigation reveals that hypnosis, posthypnotic suggestion of a destructive impulse directed toward an authority figure, and amnesia were sufficient to produce psychopathology. Though anger was never suggested and no \underline{S} verbally affirmed feelings of anger, two \underline{S} s' spontaneous hypnotic dreams and one \underline{S} 's hallucinations give vivid expression of intense hostile wishes. In addition, three other \underline{S} 's facial, vocal, and gestrual expressions indicated anger had been aroused.

A possible explanation for this spontaneous arousal of anger is found in \underline{S} 's response to the test suggestion. Upon receiving the test

suggestion of which he was completely aware, S experienced intense anxiety when he was unable to break the verbal inhibition. Consequently, he developed anger toward E because he held him responsible for his distress. With a few exceptions. Ss of the ABBA group were unable to overcome the suggested verbal inhibition, while Ss of the BAAB group nearly always broke the test suggestion in the waking state. If anger played a role in the production of pathology, Ss of the ABBA group should have displayed the most anger and manifested the greatest amount and most severe symptomology. This indeed was the case. The two Ss that developed spontaneous posthypnotic hallucinations, spontaneous hypnotic dreams, and had several somatic complaints were in the ABBA group and were the only Ss that completely defaced E's papers. The fact that the symptoms tended to be manifested towards the end of the experiment, after S had received the test suggestion a number of times, further supports this explanation. The frustration and anger created by the test suggestion was heightened by the reputed desire of hypnotic subjects to please E. More importantly, the test suggestion deprived S the basic ego function of speech, and threatened his self-concept by denying him the ability to state his own name and address.

The role of anger in the production of psychopathology was not apparent in six $\underline{S}s$. These $\underline{S}s$ verbalized somatic complaints yet gave no indication feelings of anger had arisen, though they may have completely repressed the anger. One \underline{S} , excluded from this study because of his inability to execute an experimental suggestion, developed a catalepsy of both arms and hands when the experimental suggestion calling for the defacing of \underline{E} 's papers was activated posthypnotically. This \underline{S} also gave no indication that feelings of anger had been aroused; also, he had

broken the one verbal inhibition given him prior to the appearance of the catalepsy. Possibly, amnesia for the anti-social act directed towards \underline{E} was solely responsible for the psychopthology manifested. Hokanson (1959) has shown that $\underline{S}s$ in an anger arousing situation who are informed \underline{E} has punitive powers exhibit more anxiety than those not so informed. Thus, a hostile impulse directed towards \underline{E} should give rise to an intense feeling of ambivalence in S due to a fear of retaliation a need to maintain rapport and a desire to please \underline{E} .

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exp.s.....experimental suggestion

hyp.....hypnosis

t.s....test suggestion

term....terminated

amn....amnesia

assess.....assessed

Table 1

Schema of Experimental Design

	Posthypnotic Phase	hyp amn t.s. exp.s. t.s. termasses	Hypnotic Phase Periods 1 2 3 hyp exp.s. inducedt.st.s.	
EXPERIMENTAL CONDITION A	Hypnotic Phase	l 2 3 t.s. exp.s. t.s. amnt.s t.sgiven	Posthypnotic Phase Posthypnotic Phase Periods 1 2 3 hyp. amn. exp.s. termassest.st.s.	
	Initial Phase	hyp exp.s. inducedimplanted	Initial Phase hyp exp.s. amn inducedimplantedgiven	Key

Table 2

Duncan's New Multiple Range Test Comparing Suggestibility

in Periods of the Hypnotic and Posthypnotic Phases

Phase			Hypnotic			Posthypnotic					
	Period		2	3	1	2	1	3	Shortest		
		<u>x</u>	0.00	0.00	0.11	1.09	1.52	1.64	Significance Ranges		
	2	0.00		0.00	0.11	1.09*	1.52*	1.64*	0.45		
Hypnotic	3	0.00			0.11	1.09*	1.52*	1.64*	0.47		
	1	0.11				0.98*	1.41*	1.53*	0.48		
Posthypnotic	2	1.09					0.43	0.55*	0.49		
	1	1.52						0.12	0.50		

^{*}Significant at $\alpha = 0.05$

Table 3

An Analysis of Variance with Repeated Measurements Comparing

Suggestibility of the Presentation Orders in the Posthypnotic Phase

Source of Variation	SS	df	MS	F
Between Orders	736.24	1	736.24	63.25*
S's within Order	104.77	9	11.64	
Between Periods	35.79	2	17.84	3.10
Orders X Periods	4.94	2	2.47	0.429
Periods X S's within Orders	103.76	18	5.76	

^{*}Significant at $\alpha = 0.05$

Table 4

Duncan's New Multiple Range Test Comparing Suggestibility of the

Presentation Orders for All Periods of the Posthypnotic Phase

Order				ABBA			BAAB		
	Peri	od X	2 0.13	3	1 0.50	2 2.25	1 2.85	3 3.00	Shortest Significance Ranges
ABBA	2 3 1	0.13 0.42 0.50		0.29	0.37	2.12* 1.83 1.75	2.72* 2.43* 2.35*	2.87* 2.58* 2.50*	2.04 2.14 2.21
BAAB	2	2.25 2.85					0.60	0.75 0.15	2.27

^{*}Significant at $\alpha + 0.05$

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