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The Effects of Experimenter - Subject Rapport on
the Enhancement of Hypnotic Susceptibility

Deborah M. Flynn

A dissertation presented to the Faculty of Graduate Studies
at Carleton University in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

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Abstract

The role of interpersonal rapport in facilitating the enhancements in hypnotizability produced by cognitive skill training was examined in three experiments. In Experiment I low hypnotizable subjects either received skill training or passively oriented training that was designed to facilitate rapport with the trainer without teaching subjects how to generate the responses called for by test suggestions. Subjects in the two treatments reported equivalently high levels of rapport with their trainer, but only those given skill training attained large gains on two hypnotizability post-tests. Subjects given passive training did not differ from untreated controls at post-testing, therefore concluding that high rapport is not a sufficient condition for the enhancement of hypnotizability. In Experiment II subjects received skill training under conditions designed to either heighten or minimize rapport with the trainer. Those in the high rapport condition showed large hypnotizability gains on both post-tests, whereas those in the low rapport condition failed to differ from no treatment controls in this regard. The findings indicate that high rapport is necessary but not sufficient for producing training-induced enhancements in hypnotizability. Experiment III was designed to test the hypothesis that the absence of high rapport may interfere with subjects' learning and applying skills that enhance hypnotizability. Subjects were assigned to skill training

conditions of either high rapport, low rapport or a low rapport condition with pocedures aimed at ameliorating subjects negative feelings toward the trainer prior to the second post-test. As in Experiment II, subjects who received skill training under low rapport conditions reported feeling less positively toward their trainer and reported less trust in their trainer than did those administered the CSTP under the standard high rapport conditions. Subjects in the normal high rapport condition attained significantly higher scores on all post-test CURSS dimensions than did the subjects in the low rapport conditions. The intervention aimed at ameliorating the negative feelings of low rapport subjects toward their trainer exerted no significant effects on any of the post-test SHSS:C dimensions. Subjects in both low rapport conditions attained significantly lower scores on all dimensions of the SHSS:C than those subjects in the standard high rapport condition.

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Historical Background

Behavioural phenomena that resemble those that are currently associated with the concept of hypnosis have been described for thousands of years but, it was not until two centuries ago that a scientific explanation for these phenomena was attempted (Sarbin, 1962). The Viennese physician Franz Anton Mesmer (1734-1815) advocated the belief that hypnotic phenomena were caused by a force which he labelled "animal magnetism". Mesmer drew upon a belief current at that time that the magnet held curative powers. This followed from the notion that the human body possessed poles, much like a magnet, and that sickness occurred as the result of one having a faulty balance of the associated "magnetic fluid".

Mesmer in 1766 presented to the Faculty of Vienna his doctoral dissertation, *De planetarum influxu*, for which he received his medical degree. His thesis developed the belief that planetary rotation effected the harmony of the magnetic fluids. Mesmer argued for the existence of a universal fluid which he claimed to be an invisible substance in which all bodies were thought to be immersed. This fluid was the medium through which the planets influenced the body. Mesmer believed that animal magnetism could be accumulated in his own person and then transferred to patients by "directing" the magnetic fluid from his own body through his eyes or fingertips, toward the body of the patient, by touching

them or "passing" over them with his hands. This accumulation of animal magnetism he called the "General Agent" (Sheehan and Perry, 1976).

Mesmer's attempts to gain the recognition and approval of the learned medical societies were highly controversial, and led the King of France in 1784 to institute two official inquiries into Mesmer's activities. The primary commission consisted of nine of the most distinguished scientists of this period and was chaired by Benjamin Franklin. A secondary and independent council was chosen from the Societe Royale de Medecine which also carried out an investigation (Darnton, 1968).

The commissioners concluded in both reports that the observations attributed to animal magnetism could be fully explained by touch, imagination and imitation, with particular emphasis being placed on the role of imagination. They pointed out that intense imagination was known to be the sole influence in a "crises" (common behavioural phenomenon characterized by convulsions, vomiting, sweating and so on). Alternatively, they viewed pressure and touch as preparatory elements and imitation the means by which the effects were communicated and extended (Darnton, 1968).

The criticisms of the French Commission of 1784 were only the beginning. Related criticisms continued in the work of Faria

(1906), Bertrand (1826), Hall (1845), and Hart (1898). This tradition criticized the notion that magnetic or hypnotic procedures produced unusual or remarkable behavioural abilities and explained the phenomena that did occur with more naturalistic concepts, such as attention, concentration, expectant desire, and imagination (Spanos, 1982). This tradition has resulted in contemporary "non-state" formulations which view hypnotic phenomena as explicable without having to posit special psychological processes (Barber, Spanos, and Chaves, 1974; Coe, 1978; Coe and Sarbin, 1977; Sarbin, 1950; Sarbin and Coe, 1972; Spanos, 1970, 1981; Spanos and Chaves, 1989; St.Jean, 1989).

Modern day advocates of special process or "state" theories continue to account for hypnotic behaviour in terms of altered psychological processes that are brought about by hypnotic induction rituals. Many of the explanations given by the "state" theorist to account for hypnotic responding are conceptually linked to nineteenth century notions of an "hypnotic trance state" but they use a nomenclature that resonates with contemporary cognitive and information processing formulations, e.g., dissociated cognitive subsystems (Bowers, 1976; Evans, 1968; Hilgard, 1977, 1979; Kihlstrom, 1978).

Stability of Hypnotic Susceptibility

Since the development of standardized hypnotic susceptibility tests in the 1960s it has been found that the test-retest

stability of hypnotic susceptibility is quite high. That is, initial scores obtained on tests of susceptibility are good predictors of how subjects will score on subsequent tests (Barber, 1965; Hilgard, 1965; Spanos, Radtke, Hodgins, Bertrand, Stam and Moretti, 1983b). Interestingly enough, susceptibility scores from naive adult subjects remained relatively stable even when the retest interval was as long as 10 years (Morgan, Johnson, and Hilgard, 1974) and across a wide variety of measurement scales (Hilgard, 1965). Several investigators (Bowers, 1976; Hilgard, 1977; Perry, 1977) have used this high test-retest stability as one line of evidence for viewing hypnotic susceptibility as a durable "trait". Given that hypnotic behaviour is viewed in this way, the issue of whether or not susceptibility can be significantly altered becomes an important question.

The State Theory Perspective

From the perspective of many contemporary state theorists, hypnotic susceptibility is a stable, trait-like attribute that has as its major underlying determinant subjects' stable capacity for experiencing "dissociation" (Bowers, 1976; Hilgard, 1977). According to many special-process trait theorists, hypnotic procedures lead to a temporary "splitting off" or dissociation between the cognitive subsystems that control behaviour and the

cognitive subsystems that constitute conscious awareness (Bowers, 1976; Hilgard, 1977). Advocates of trait theory further suggest that subjects differ in their capacity for dissociation and that these individual differences are highly stable and cannot be modified to any significant extent. In other words, those subjects who score low on a test of hypnotic susceptibility are deficient in their capacity to experience dissociation. Since this capacity is itself largely fixed by adulthood, it follows that modifying the attitudes toward and interpretations of hypnosis should not produce substantial enhancements in hypnotic responsiveness (Hilgard, 1975; Bowers, 1976). For the most part, this line of reasoning was supported by numerous early studies that were aimed at modifying hypnotic behaviour (Perry, 1977).

Attempts to Alter Conscious State

Most of the early modification studies aimed at enhancing hypnotic susceptibility were conducted by investigators who conceptualized a change in hypnotic responsiveness as tantamount to a change in the "depth" of the "trance state". Studies aimed at altering susceptibility employed procedures that were designed to enhance alterations in consciousness. These procedures included personal growth training (Tart, 1970), electroencephalographic (EEG) biofeedback training (London, Cooper and Engstrom, 1974), relaxation techniques (Leva, 1974;

Sachs and Morrow, 1977), and meditation training (Heide, Wadlington and Lundy, 1980). Many of these procedures produced increments in susceptibility, but for the most part they were of small magnitude. Those that reported significant enhancements were difficult to replicate. For instance, two studies (Wickramasekara, 1973; Simon and Salzberg, 1981) reported large increments in susceptibility following EEG (biofeedback) induced relaxation, but subsequent studies were unable to reproduce the significant effect (e.g., Radtke, et al., 1983; Spanos and Bertrand, 1985).

Numerous studies used drug induced alterations in consciousness as a means of changing hypnotic susceptibility. Fogel and Hoffer (1962), Levine and Ludwig (1965), and Solurish and Rae (1966) all found that hypnotic experiences were enhanced after the administration of LSD-25. Sjöberg and Hollister (1965), found that mescaline and /or LSC-25 enhanced suggestibility. Other studies suggested that sleep can facilitate hypnotic performance, and that subjects can respond to meaningful suggestions when in this state (Dement and Wolpert, 1958; Evans, Gustafson, O'Connell, Orne and Shor, 1966). Nevertheless, in all of these studies the increases in susceptibility tended to be small and were sometimes nonsignificant. Trait theorists used the general failure of these studies to produce large susceptibility gains as evidence for the inherent stability and unmodifiability of susceptibility (Bowers, 1976; Perry, 1977). On the other hand,

social psychological theorists (non-state) explained the small increments obtained by these studies as due to the fact that the cognitive and social variables most likely to produce large increments in hypnotic susceptibility were not being manipulated (Diamond, 1977; Gorassini and Spanos, 1986).

The Social Psychological Perspective

Social psychological accounts of hypnosis conceptualize hypnotizability as involving cognitive skills that can be learned. These accounts emphasize the importance of subjects attitudes, interpretations, motivations, expectations, and cognitive sets in hypnotic responding. According to this perspective the manipulation of these variables can result in the successful modification of hypnotic susceptibility (Sachs, 1971; Sarbin and Coe, 1972; Diamond, 1974, 1977, 1982; and Spanos, 1986a).

According to the non-state perspective, highly hypnotizable subjects guide their behaviour strategically in order to perform in keeping with implicit and explicit role demands present in the hypnotic test environment. Individual differences in hypnotic susceptibility reflect the interactive contribution of a number of variables such as attitudes and expectations concerning hypnosis and the interpretational stance taken toward

suggestions. Non-state theorists, account for the usual stability of hypnotizability scores by suggesting that subjects are rarely exposed to information that changes their interrelated attitudes and interpretational sets.

Studies Based on Skill-Training Procedures

The social psychological formulation of hypnotic behaviour holds that gains in susceptibility should be achievable by appropriately manipulating subjects' attitudes towards hypnosis and their interpretations of test suggestions (Diamond, 1977; Spanos, 1986). Evidence to support this line of reasoning was obtained in three studies by Sachs and his associates (Kinny and Sachs, 1974; Sachs and Anderson, 1967; Springer, Sachs and Morrow, 1977). These investigators found substantial increments in hypnotizability in subjects who had been administered a multi-component training procedure based on operant and social-learning principles. The training session was designed to rid subjects of negative attitudes towards hypnosis, reinforce successive approximations to the appropriate overt and subjective responses that were required, and provide practice at experiencing the subjective effect called for by the suggestions.

Not all studies that have used a multi-component modification training procedures have produced successful results (e.g., Katz,

1979), therefore, making it imperative to identify the effective components in skill training.

There is a large variation in hypnotizability "training packages" that are based on social learning principles. The skill approach basically involves the systematic application of a number of social learning principles. These modification sessions operate for the most part on operant and informational control procedures. Operant based training used primarily by Sachs and his colleagues (Kinney and Sachs, 1974; Sachs and Anderson, 1967; Springer et al., 1977), involves self-paced successive approximations, an explicit review of what the subject is to experience, and positive reinforcement. Other researchers such as Diamond and his co-workers (Diamond, 1972; Diamond et al., 1975; Gregory and Diamond, 1973) and to a lesser extent Barber and colleagues (Barber et al., 1974; Cronin, Spanos, and Barber, 1971) use informational control training which involves verbal information (i.e., direct instructions) directed at reducing negative attitudes and misconceptions about hypnosis.

Some studies that have not been successful only used a single-variable per treatment (e.g., Gur, 1974; Reilley, Parish, Carona, and Dobrovolsky, 1980). For example, Crouse and Kurtz (1984) provided subjects with information designed to either augment positive attitudes toward hypnosis or encourage focussed attention or provide imagery strategies. As of result of looking

at these variables separately and not having a condition which combined the effects of all three components, the resulting susceptibility enhancements were quite small. As stated earlier, those studies which employ a multi-component treatment package have a better success rate than do those focussing on the contribution of one variable at a time.

Analysis of Treatment Components

Not all studies that employ multi-component training procedures produce similar gains in hypnotizability. For this reason it is important to specify the variables involved in the successful modification procedures. Diamond (1977) identified several dimensions which appear to be important for increases in susceptibility and refers to these as "core components". Using Diamond's terminology, the core components are optimal learning factors, attitudinal and set factors, and cognitive strategy factors.

Optimal Learning Factors

Optimal learning factors encompass such constructs as motivation, attention, shaping, practice, reinforcement and feedback, all of which tend to facilitate the learning process. Motivation is considered an important element in experiencing hypnotic involuntariness and as a result has been included as an essential

component in several training procedures (Barber, 1969; Burns, 1976; Diamond, 1972). Attention to the training procedure (Diamond et al., 1975) and to the experimenter (Gur, 1974; Wickramasekera, 1973) has been found important for the retention and use of the information being conveyed during the training session. Practice and shaping have been deemed as important processes when learning new hypnotic responses (Kinney and Sachs, 1974; Pascal and Salzberg, 1959; Sachs and Anderson, 1967; Springer et al., 1977). Operantly oriented experimenters consider reinforcement and feedback to be important components of learning to respond hypnotically (Diamond, 1972; Sach and Anderson, 1967).

Attitudinal and Set Factors

Attitudinal and set factors include those variables which are present just before the subject enters the hypnotic session such as degree of relaxation (Talone, et al ., 1975; Wickramasekera, 1973, 1977), interpersonal trust (Shapiro and Diamond, 1972), and disinhibiting fears, attitudes and expectations (Cronin et al., 1971; Diamond, 1972; Diamond et al., 1975; Gregory and Diamond, 1973). These factors influence the extent to which subjects develop an open, receptive attitude toward the hypnotic situation. Disinhibiting information has been found to make subjects less resistant to hypnotic suggestions and for this reason is commonly used in many modification procedures to

enhance susceptibility.

Cognitive Strategy Factors

These factors include learning to put aside one's analytical focus and become more receptive to the suggestions. Diamond refers to this as "suspending reality" (Diamond, 1972; Diamond et al., 1975; Gregory and Diamond, 1973). Strategies also include controlling imagination and imagery (Barber et al., 1974; Spanos and Barber, 1974), and focusing thoughts on the events suggested (Barber et al., 1974; Diamond, 1972; Kinney and Sachs, 1974).

Diamond (1977) outlined these core components post hoc, on the basis of his review of the literature. On the basis of this review, he concluded that, "The utility of any modification procedure ultimately rests on discerning these core components and subsequently combining them in the most efficacious manner" (Diamond, 1977, pp.162). The components outlined by Diamond (1977) are similar to those that comprise many of the procedures in the Carleton Skill Training Package.

The Carleton Skill Training Package

One of the most successful multi-component skill training packages was initially used by Gorassini and Spanos (1986). The

Carleton Skill Training Package (CSTP) consists of three distinct components. In numerous studies using this package fifty percent or more of low susceptible subjects scored in the high susceptibility range following skill training (Gfeller et al., 1985; Spanos, Robertson, Menary, and Brett, 1986; Spanos, Robertson, Menary, Brett, & Smith, 1987; Gfeller, Lynn, and Pribble, 1987; Spanos, de Groh and de Groot, 1987). Furthermore, an even greater proportion of those subjects who were at baseline medium susceptibles, scored in the high susceptible range following skill training (Gfeller et al., 1985; Gorassini and Spanos, 1986). The first component of the CSTP is comprised of information which dispels the myths and misconceptions about hypnosis, and is aimed at encouraging positive attitudes and motivations toward hypnotic responding. The second component stresses the importance of the subject becoming absorbed in imagining the "make-believe" situations that are contained in suggestions. For example, the subject may be given a suggestion that their hands are stuck together and informed that they can experience the feeling that their hands are indeed stuck together by becoming absorbed in the fantasy that their hands are two blocks of steel welded together. The third component of the CSTP includes detailed information as to how to interpret the suggestions presented during the session. The information contained in the CSTP is communicated in two ways. First, the trainer gives the subjects direct and explicit information and feedback following each of several practice suggestions. Second,

subjects are shown a videotape of a model successfully responding to the same suggestions the subject is expected to perform during the session. As the model performs the overt behaviours required by the suggestions she also verbalizes appropriate suggestion-related imaginings. The subject then witnesses an interview between the video-taped model and her trainer during which the model reiterates her interpretation of suggested communications and the cognitive strategies she thought were useful in making appropriate responses to the suggestions.

Instructions as to how to interpret the suggestions was made explicit because it was frequently found that naive subjects find suggestions ambiguous (Spanos, 1982). Most suggestions are worded to imply that no active participation from the subject is required for the events in the suggestion to occur (e.g., "you will see a book on the table"; "your arm is rising into the air"). Spanos (1982) suggested that many subjects interpret the suggestions literally and therefore, make no attempt to actively participate in bringing about the suggested effects. As a result these subjects score low on the hypnotizability scale. Those subjects that score high on such scales are perhaps interpreting the suggestion as a tacit request to enact the required behaviours and generate the required experiences.

It was this line of thought that encouraged the designers of the CSTP to add the interpretational set component of the package.

The CSTP encourages the active participation of the subject and clearly states that hypnosis is not something that "happens to you" but something that must be enacted. Subjects are also informed that becoming highly absorbed in the fantasy situation along with making the overt physical response required of each suggestion, will make the experience feel involuntary.

Component Analysis of the Carleton Skill Training Package

In an attempt to explain the highly variable outcomes of studies that use multi-component treatment procedures in modification sessions Spanos, Robertson et al., (1987) looked systematically at the components of the Carleton training package. Subjects in a partial treatment condition were administered positive information about hypnosis and information about absorption in imagery, but were not given information about how to interpret the suggestions. Those subjects attained much smaller susceptibility gains than subjects who received the full three-component package. In fact, subjects in the partial treatment produced post-test scores that were indistinguishable from controls who received no treatment at all. Importantly, subjects in the partial and complete groups showed large and equivalent increments in positive attitudes towards hypnosis. These findings contradict both the notion that susceptibility gains are necessarily small and the view that such gains can be totally

accounted for in terms of attitude change, fear reduction, practice with suggestions and so forth.

Again, using the CSTP, Gorassini and Spanos (1986) found that having subjects practice suggestions at length without the normal information aimed at changing attitudes and interpretational sets resulted in much smaller susceptibility gains than when subjects received the entire training package. In short, both of these studies emphasize the importance of the interpretational set component in the modification of suggestibility.

Criteria for Modifiability

The typical practice in modification studies has been to use statistical tests of significance as the sole criterion for determining a change in susceptibility. The standard methodology begins by obtaining a base-line score for each subject on an accepted susceptibility test such as the Carleton University Responsiveness to Suggestion Scale (CURSS; Spanos, et al., 1983); the Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A; Shor and Orne, 1962); the Stanford Hypnotic Susceptibility Scale, Form A or Form B (SHSS:A, SHSS:B; Weitzenhoffer and Hilgard, 1959); or the Stanford Hypnotic Susceptibility Scale Form C (SHSS:C; Weitzenhoffer and Hilgard, 1962). Once base-line scores are obtained those subjects found to be "low susceptibles" (scores vary depending on the

susceptibility test being used) are then administered a training procedure aimed at increasing hypnotizability. Subjects are then retested using either the same test that was initially used and/or another measuring instrument to establish generalization of the effect. A control group is administered the pre- and post training tests with no training procedure. A statistically significant increase from mean base-line to mean post-test scores in the group that received training and no such increase evident in the control group is taken to be evidence for modification of hypnotizability.

It has been suggested that the generalization of the modified hypnotic behaviour to other test situations and the persistence of this behaviour over time should also be considered as criteria for modification. Diamond (1974) argued that in order to conclude that hypnotizability has been truly modified, the new behaviour is, "likely to maintain itself under similar testing circumstances and/or generalize to different test situations" [p.182].

The Generalizability of Skill Training

As is in any learning situation, it is important that the skills acquired during the modification training session generalize to new hypnotic situations and to a broad range of suggestions. In support of such generalization effects are many studies that

reported large increments in susceptibility when using two different susceptibility scales as post-tests (Sach and Anderson, 1967; Diamond, 1972; Kinney and Sach, 1974; Spanos, et al., 1986; Gorassini and Spanos, 1986). Sachs and Anderson (1967) pre-tested subjects on both the HGSHS:A and the SHSS:C. Subjects were then administered a training session aimed at increasing responsiveness to a series of test suggestions taken from the HGSHS:A. At post-test subjects were given both the HGSHS:A and the SHSS:C and were found to respond successfully to the behavioural and subjective aspects of both tests. Although subjects had not practiced during training on the SHSS:C, they attained significant increments on this scale during post-testing.

Subjects administered the Carleton Skill Training Package (CSTP) show large increases on subjective as well as behavioural indices of suggestibility, and their training-induced gains generalize to a wide range of suggestions and even to novel tasks that are not contained on conventional susceptibility scales (Spanos et al., 1989; Spanos, Robertson, et al., 1987; Gfeller et al., 1987; Spanos and Flynn, in press). In fact, in several studies subjects who underwent skill training were matched in terms of their behavioural susceptibility scores with subjects who attained the same behavioural scores at base-line without training. The skill-trained subjects and their matched controls performed similarly on subjective dimensions of susceptibility

and responded similarly on suggestions which they had not previously encountered (Gfeller et al., 1987; Gorassini and Spanos, 1986; Spanos, Lush and Gwynn, 1989).

Temporal Stability

Along with there being evidence that skills learned during modification training are generalizable there is some evidence to support the notion that these acquired skills can stand the test of time. Kinney and Sachs (1974) administered post-tests to a group of modified subjects both immediately and one month after training and found the skill-trained subjects still exhibited significantly higher levels of hypnotizability than the group of low susceptible controls that received no training. Spanos, Cross, Menary and Smith (1988) found higher susceptibility scores in skill-trained subjects than in control subjects when both groups were post-tested one and a half years following the initial base-line score.

To summarize, the data now available suggests not only that hypnotic susceptibility is more pliable than the capacity-for-dissociation approach suggests but, the enhancements produced by skill-training appear on subjective as well as behavioural dimensions of susceptibility, and generalize to novel test suggestions and across time.

Base-line Susceptibility

Many investigators (Shor, Orne and O'Connell, 1966; Shor and Cobb, 1968; Bowers, 1976; Perry, 1977) contend that the score obtained on an initial base-line test is not a "true" indication of the level of hypnotizability because such factors as fear and apprehension suppress hypnotizability until the subject experiences hypnosis as being harmless. For this reason some investigators (Bowers, 1976; Perry, 1977) recommend that at least two base-line hypnotizability tests be obtained. According to these investigators susceptibility gains in modification studies that used only one base-line test may be artifactual. This contention, however, is not very well supported. The literature includes five modification studies in which more than one base-line test was employed, and which resulted in large increments in susceptibility (Sachs and Anderson, 1967; Diamond, 1972; Kinney and Sachs, 1974; Springer, Sachs and Morrow, 1977; Spanos, Robertson et al., 1985). Obviously, the "one base-line" criticism is toppled in light of these findings. Furthermore, the notion that hypnotizability scores tend to increase following an initial test is contradicted by the available data. For instance, Spanos, Radtke et al., (1983) tested naive subjects twice on the CURSS with an interval of up to three months and found that seventy-three percent of those tested the second time obtained scores within one point of their initial score. In fact, 18.4 percent of those tested showed a decrease of more than

one point.

Plateau Susceptibility

The notion of plateau susceptibility holds that subjects do not always perform at their optimal or "plateau" level of hypnotizability during the first hypnotic session. Some variable number of hypnotic training sessions is needed to reach a plateau beyond which additional training would unlikely improve the susceptibility score. Shor, Orne, and O'Connell (1962), state that plateau level is a point at which attitudinal factors are felt to play a small role in hypnotic responding. Some researchers have suggested that the subjects' plateau level should serve as the base-line susceptibility score in modification experiments. Plateau susceptibility is based on the notion that hypnotic susceptibility reflects differences in level of hypnotic or "trance" depth. The highest level which a person can reach is fixed, but factors such as attitudes and expectations dealing with hypnosis can interfere with the plateau level being reached.

Some theorists contend that only after extensive work with subjects to change misconceptions, relieve unconscious fears, and give optimal practice, should any attempts to enhance susceptibility begin (Shor, Orne, and O'Connell, 1962). On the other hand, there is evidence to suggest that individualized

hypnotic training produces only small increments in susceptibility (Hilgard and Weitzenhoffer, 1963; Cooper, et al., 1967), and furthermore, it was found that susceptibility scores and plateau scores were correlated quite highly $r=.83$ (Shor, Orne, and O'Connell, 1962).

The hypothesis of plateau susceptibility fails to account for the discrepancies between the post-test scores of skill trained subjects and low controls. For example, Gorassini and Spanos, (1986) found that fifty percent of skill trained subjects obtained scores in the high susceptibility range, while none of the low susceptible control group, who received the same number of hypnotic susceptibility testings, remained in the low range. From the perspective of a plateau susceptibility hypothesis, the implication is that the skilled trained subjects reached plateau, but the low susceptible controls did not. Spanos (1986a) suggests that the acceptance of such an interpretation would mean accepting that existing susceptibility scales are invalid and consistently underestimate subjects "real" level of susceptibility. Furthermore, if this were the case then investigators who found only a small difference between initial base-line scores and plateau susceptibility scores were mistaken because the ultimate plateau had never been reached. An alternative explanation would be that skilled trained subjects exhibited large enhancements not because of a change in "hypnotic depth", which implies passive and involuntary responding, but

simply because subjects' attitudes, strategies, and interpretational sets toward hypnosis were changed.

The Issue of Compliance

Compliance occurs when there is a discrepancy between privately held beliefs and opinions, and the public presentation of those beliefs and opinions (Kiesler and Kiesler, 1970; Wagstaff, 1981). The problem of compliance is not one unique to the area of modification research, it occurs in all areas of hypnosis research and is not easily resolved (Wagstaff, 1981).

The hypnotic situation contains strong implicit demands for the subject to produce the "appropriate" overt responses to suggestions. Furthermore, hypnotic behaviour can be easily faked (Orne, 1959; Wagstaff, 1979, 1981). Subjects can easily carry out the overt responses called for by the suggestion in the absence of the subjective experiences called for (e.g. Perry, 1977). Gains in susceptibility following skilled training procedures are interpreted by the social-psychological theorists as the subject having successfully learned the skills and interpretations required for generating subjectively convincing hypnotic enactments (Diamond, 1977; Spanos, 1986a). However, compliance may also play a role in the modification of susceptibility. How

Natural Highs, Skill-Trained Highs and Simulated Highs

Several studies have compared three groups of subjects: skill-trained subjects, subjects who score equivalently high without skill-training (natural highs), and subjects who are instructed to fake hypnotic responding. The results of these studies suggest that the compliance hypothesis cannot solely account for the results of modification studies (Gorassini and Spanos, 1986; Spanos, de Groh and de Groot, 1987; Gfeller et al., 1985). For example, Spanos, Lush and Gwynn (1989) and Spanos, Robertson, Menary and Brett (1986) approached the compliance issue by comparing scores of skill-trained subjects with subjects who were explicitly instructed to fake hypnosis (simulators). The task of the simulators was to use their background knowledge of hypnosis and any experimental cues to help them "fake" responding like a highly hypnotizable subject. In both studies the simulators and the skill-trained subjects out-performed controls, who received no skill training or instructions as to how to behave, on the behavioural and subjective dimensions of hypnotizability post-tests. Importantly, it was found in both studies that simulators also performed better than the skill trained subjects on all hypnotizability indices. In other words, simulators who were explicitly instructed to comply with suggested demands responded differently than skill-trained subjects on tests of hypnotic susceptibility.

Another approach to the issue of compliance involves comparing the skill trained group to subjects who, without the benefit of skill training, score highly on susceptibility scales (Gfeller et al., 1987; Spanos, Lush et al., 1989; Spanos and Flynn, in press). In all of these studies skill trained subjects scored similarly to matched natural highs on new sets of hypnotic suggestions as well as on the subjective dimensions of the items used for matching. In the Spanos, Lush et al. (1989), study both the skill-trained group and the natural high group responded equivalently on the behavioural and subjective dimensions of the post-test but differently from simulators.

Taken together, the similarities in the responding of skill trained and natural subjects and the differences in responding between skill trained subjects and simulators, suggests that the performance of skill trained subjects cannot be accounted for adequately in terms of behavioural compliance (Spanos, 1986a).

Importance of Rapport in Modification Studies

As already discussed, one of the most important issues in the modification of hypnotic behaviour is to specify the variables that account for successful gains in hypnotizability (Diamond, 1977). Several studies (Dolby and Sheehan, 1977; Lynn, Nash, Frauman, and Sweeney, 1984; Lynn, Snodgrass, Rhue, Nash and Frauman, 1987; Sheehan, 1980) indicate that hypnotist/subject

rapport influences hypnotic responding. For instance, with respect to the role of rapport in skill training, Gfeller et al., (1987) found that the degree of hypnotizability gain that followed CSTP administration was positively correlated with the degree of rapport reported by subjects toward their trainers. Similarly, Cross and Spanos (1988) found that CSTP induced hypnotizability gains correlated significantly with both trainers' ratings and subjects' ratings of the degree of receptivity that subjects exhibited toward their training. Despite correlational findings of this kind, the manner in which rapport facilitates hypnotizability gain remains unclear.

One hypothesis suggests that high rapport with the trainer constitutes a sufficient condition for large hypnotizability gains when demands for such gains are clearly specified. This hypothesis implies that the specific training information conveyed in skill training programs is largely irrelevant to any hypnotizability increments that might be attained. Presumably, such training simply serves to inform subjects that hypnotizability gains are desired, and then provides an interaction medium through which high rapport can be developed. Once established, the high rapport leads subjects to comply with hypnotizability post-test demands in order to please or not disappoint the trainer.

Although the compliance hypothesis certainly deserves serious

consideration, there are reasons to doubt its adequacy as an account for the available data concerning skill training. As mentioned earlier (section labelled; Attempts to Alter Conscious State), numerous studies that employed procedures other than skill training produced only very small susceptibility gains. These studies contained clear demands for increased hypnotizability. Although they did not directly assess trainer/subject rapport, these studies often employed training procedures that were explicitly designed to enhance rapport (e.g., Shor and Cobb, 1968). It seems very unlikely that high rapport was obtained in none of the unsuccessful training studies, but in all of those studies that employed training packages that emphasized positive attitudes and an active interpretational set.

An alternative hypothesis suggests that high rapport leads subjects to cooperate with and remain attentive to the trainer and to the information which he/she transmits. According to this hypothesis rapport is not a sufficient condition for hypnotizability gain. Instead, high rapport enhances the likelihood that subjects will attend to, take seriously and apply the information conveyed to them during training. Consequently, the hypnotizability increments associated with high rapport do not reflect compliance. Instead, these increments reflect the fact that subjects who developed high rapport learned and were willing to apply the cognitive strategies and interpretations

that led them to experience the effects called for by the hypnotizability test suggestions.

Recently, Bates, Miller, Cross and Brigham (1987) obtained only small increments in hypnotizability using the CSTP and even these small gains failed to be maintained when subjects were later tested on a second hypnotizability post-test. Bates et al., (1987) suggested that the differences between their findings and those of previous studies using the CSTP may have occurred because the trainers in their study did not develop sufficient rapport with subjects. More specifically, Bates et al., (1987) suggested that the large hypnotizability gains obtained in other studies that used CSTP may have resulted in part from subjects feeling pressure to comply with the wishes of the trainers. According to this hypothesis, trainers who administer the CSTP usually interact with subjects in a manner that produces a high level of trainer/subject rapport. Because subjects grow to like and to want to please their trainer, and because the CSTP clearly implies that heightened responsiveness to suggestion is desired by the trainer, subjects are likely to engage in compliance: They exhibit large increments on behavioural and subjective report indices of hypnotizability in the absence of corresponding changes in experimental response to suggestions.

Bates et al., (1987) are correct in stating that, at least in the Carleton Laboratory, CSTP trainers are encouraged to develop

rapport with their subjects (Cross and Spanos, in press). To this end trainers in the Carleton Laboratory memorize instructions so as to administer them with emphasis and while maintaining appropriate eye contact. Trainers are also encouraged to greet subjects warmly and politely, thank them for coming, show interest in them with small talk, put them at ease, etc. Furthermore, at several points during the administration of the CSTP trainers provide subjects with feedback. In doing so trainers are encouraged to use what they know about the subject in order to personalize the feedback and make it relevant to the subject's interest. In short, the development of a positive, cooperative, trainer/subject relationship is an integral part of administering the CSTP, just as it is an integral part of many other social influence/cognitive behaviour modification programs (e.g., Hahn, 1985).

The present study contains three experiments designed to assess the role of trainer/subject rapport in the hypnotizability gains produced by skill training.

EXPERIMENT I

If high rapport with the trainer is a sufficient condition for hypnotizability gain, then any training procedure should be effective in enhancing hypnotizability so long as it provides a legitimating rationale, clearly indicates that high hypnotizability is called for and desired, and produces a high level of rapport between trainer and subject. Alternatively, if skill training teaches subjects how to respond, and if high rapport increases the likelihood that subjects will attend to and apply the training information, then high levels of rapport in the absence of the requisite information should produce little enhancement in hypnotizability.

Experiment I tested the hypothesis that high trainer/subject rapport is a sufficient condition for enhancing hypnotizability. Low hypnotizables in one treatment were administered the CSTP with its usual emphasis on hypnotic responses as "active achievements" as opposed to "passive happenings". Low hypnotizables in a second treatment were also informed that they were to undergo training designed to enhance their hypnotizability. In place of the CSTP, however, these subjects were administered relaxation training and imagery enhancement which emphasized that hypnotic responses "just happen by themselves". Special emphasis was also placed on making subjects feel secure and comfortable and on enhancing trainer/subject

rapport. Following training subjects in both treatments rated the degree of rapport that they felt toward the trainer. In later sessions subjects were post-tested first with the Carleton University Responsiveness to Suggestion Scale (CURSS; Spanos, Radtke, Hodgins, Stam, and Bertrand, 1983), and two weeks later with a modified version of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C; Weitzenhoffer and Hilgard, 1962). A third group of low hypnotizables was administered the two hypnotizability post-tests without any intervening treatment. It was anticipated that subjects in the CSTP and passive training treatments would report equivalently high levels of rapport with the trainer. On the other hand, it was also anticipated that those administered the CSTP would attain significantly high scores on all post-test indexes of hypnotizability than those in the passive training and control conditions.

Method

Subjects

Thirty Carleton University undergraduate students (male and female) who had previously obtained low scores (0-2) on the objective dimension of the Carleton Scale (CURSS:Q) volunteered to participate in a three session experiment on hypnosis. All subjects received course credit for their participation.

Procedure

Subjects were randomly assigned to three treatment groups with

the restriction of an equal number ($N=10$) in each condition. Those in one treatment were individually administered the CSTP by a female trainer and those in a second treatment were administered passively oriented relaxation/imagery enhancement training by the same experimenter. The passively oriented treatment was designed to facilitate subjects' feelings of liking and rapport toward the trainer. At the termination of both the CSTP and passively oriented training the trainer left the room and subjects were administered two questionnaires to assess their impressions of and feelings toward the trainer. The experimenter who administered the rapport questionnaires informed subjects that their honest impressions of the trainer and their feelings about her would be very helpful and would enable the laboratory to refine its procedures and, thereby, benefit future subjects.

One to two weeks after training subjects were post-tested in groups of 2 to 4 persons on the CURSS. After another two weeks they were group post-tested once again using the modified SHSS:C. No treatment control subjects were also group post-tested on the CURSS and SHSS:C but received no intervening treatment. The experimenter who post-tested subjects was blind to their group assignment and was not the same person who trained subjects or who assessed their rapport with the trainer.

Skill Training

The individually administered CSTP is described in more detail in appendices A, B, C and D. Briefly, subjects were provided with information aimed at removing misconceptions about hypnosis and inculcating positive attitudes toward hypnosis. Subjects were also encouraged to become absorbed in the imagery situations described in the test suggestion or to devise suggestion-related imagery of their own.

Subjects were administered several practice suggestions preceded by explicit information as to how the suggestion should be interpreted. This interpretation information was provided both by the experimenter and by a videotaped model who responded successfully to suggestions and then explicated the interpretations that guided her responding. Both the experimenter and the videotaped model indicated that suggested responses do not "just happen" but instead must be enacted. However, emphasis was placed on the idea that enacted responses could be made to feel involuntary through absorption in suggestion-related imaginings. Following each suggestion subjects were given verbal reinforcement for appropriate responding as well as corrective feedback and further instruction. In the final phase of training subjects were given four new practice suggestions that were neither preceded by interpretation information nor followed by feedback. However, this final set of suggestions was preceded by encouragement to

generalize what had been previously learned in the session.

Throughout the training the experimenter attempted to establish and maintain rapport. To do so she behaved so as to appear to the subject as a warm, friendly, considerate person within the social bounds of an episodic, task-oriented, trainer-trainee relationship. Thus, the trainer greeted the subject warmly, exhibited interest both in the subject and in what she was attempting to teach. She smiled frequently and maintained appropriate eye contact, offered encouragement, praise and reassurance. She did not criticize, nor did she use sarcasm or appear bored by the procedure. All of these rapport enhancing procedures are typically used when administering the CSTP in the Carleton Hypnosis laboratory, and the trainer made no attempt to introduce new rapport enhancing procedures.

Passively Oriented Training

This treatment was divided into five phases. The first phase was designed to develop rapport by putting the subject at ease and to induce a feeling of mutual trust and self-disclosure between the trainer and subject. The subjects were greeted warmly by the trainer and, after they were seated the trainer expressed interest in the subject by asking if it was their first year at Carleton, how they were enjoying it, etc. For instance, the trainer asked subjects if they had picked their major. If they

indicated a major the trainer responded with something similar to, "That sounds exciting, could you tell me a little more about it?" If they had not yet decided on a major the trainer then identified with the subject by disclosing her uncertainties when trying to decide on a major as an undergraduate (see Appendix E).

In the second phase the trainer informed subjects that she too had obtained a low hypnotizability score when she took introductory psychology. Later, however, she underwent the procedures that she would instruct them in today and in that way learned to become very deeply hypnotized and very responsive to suggestions. The trainer then informed subjects about her initial anxieties concerning hypnosis, "When I remember back I was really a little scared about the idea of being hypnotized. I was afraid of somehow losing control." She then informed subjects that her fears were based on misconceptions and, as she discovered more about hypnosis, she realized that she had nothing to fear. Next, subjects were encouraged to think back to their earlier hypnotizability session and to disclose their feelings about hypnosis. The experimenter listened with sympathetic interest, discuss misconceptions, allay fears, reflect back feelings and so forth.

Before beginning phase three subjects were instructed to fill out a questionnaire (Appendix F) which required them to choose a number on a scale from 1 to 20 that described, "how relaxed your

body feels right now." The end points on the scale were anchored with "extremely tense" (scored 1) to "extremely relaxed" (scored 20). Subjects then responded to a second 20 point scale with the same anchors that ask them to describe, "how relaxed your mind feels right now." After completing these scales subjects were informed that:

Becoming hypnotized isn't so much something you do as something you let happen. In a way, becoming hypnotized involves resting your conscious mind and your tendency to analyze things from a critical perspective...It involves just letting yourself go, letting your mind go...When your mind and body are relaxed your mind can easily and passively just absorb the words of the hypnotist. When your mind is relaxed it will just automatically transform the words of the hypnotist into vivid images that just seem to come alive and be real...What I would like to do next is to work with you to help you learn to become more relaxed and to learn to just open your mind and let it become receptive to the images I will suggest...

In the fourth phase of training subjects were asked to close their eyes and were administered twenty-five minutes of progressive relaxation instructions modified from Radtke, Spanos, Armstrong, Dillman and Boisvenue (1983). In the fifth and final

phase subjects were asked to remain relaxed and were administered five minutes of guided imagery designed to further enhance feelings of relaxation and security. Subjects were invited to imagine descending a staircase and, at the bottom to imagine a soft, warm, comfortable cloud.

Following these procedures subjects were instructed to open their eyes and again complete the mind/body relaxation scales. The trainer then reiterated how deeply hypnosis involved their passively opening their mind to suggestions, and passively letting their hypnotic responses "just happen". The experimenter also encouraged subjects to use their new relaxation and imagery skills when responding in future hypnotizability sessions.

Hypnotizability Scales

The CURSS was used to assess initial hypnotizability and was also used to assess hypnotizability on the first post-test. The CURSS assesses both objective (CURSS:O) and subjective (CURSS:S) responsiveness to suggestions. In addition, it assesses the frequency with which subjects rate their objective responses to suggestions as feeling involuntary (CURSS:OI). CURSS:O and OI scores range from zero to 7 and CURSS:S scores range from zero to 21 (Spanos, Radtke et al., 1983). A 10-item version of the SHSS:C modified in the Carleton hypnosis laboratory for group administration was used as the second post-test (Spanos, Salas,

Menary and Brett, 1986). Like the CURSS, the modification of the SHSS:C yields objective (SHSS:C/O), subjective (SHSS:C/S), and objective involuntary (SHSS:C/OI) scores. SHSS:C/O and OI scores range from zero to 10 while SHSS:C/S scores range from zero to 30.

Rapport Questionnaires

Rapport was assessed with two questionnaires. The first (Appendix G), a "Trust of Experimenter Scale" (Jourard, 1971, pp. 212-213), includes 15 bipolar items that describe the subject's degree of liking and trust for the trainer, e.g., felt at ease/felt tense, anxious; bored by the other person/interested by the other person; liked the other person/disliked the other person. Jourard's (1971) scoring procedure was modified so that each bipolar pair was rated on a 7 point scale with high scores indicating high trust and liking for the experimenter. Items were summed to yield a single trust score per subject.

The second questionnaire (Appendix H), also from Jourard (1971, pp. 220-221), consists of 30 bipolar items each rated on a 7 point scale. The items reflected the degree of positive or negative feeling the subjects experienced toward the trainer, e.g., valuable/worthless; hostile/friendly; warm person/cold person. Items were summed to yield a single score per subject with high scores indicating positive feelings toward the trainer.

Results

Manipulation Checks

Relaxation. Scores on the mind and body relaxation scales administered to subjects in the passive training treatment before and after progressive relaxation training were analyzed with a 2 X 2 (mind/body items X intervals) within-subjects analysis of variance (ANOVA). Only the interval variable attained significance, $F(1,9) = 76.99$, $p < .001$; Subjects reported much higher mind/body relaxation following relaxation training, $M = 34.2$; $SD = 3.85$; than before it, $M = 17.8$, $SD = 6.17$. In short, subjects in the passive treatment were receptive enough to their treatment instructions to exhibit the large increments in relaxation called for by their training.

Rapport. Subjects in both the CSTP and passive training treatments were administered the Trust in Experimenter and Positive Feelings Toward the Experimenter questionnaires. Subjects given the passive training, $M = 92.2$, $SD = 5.85$; and those given the CSTP, $M = 92.6$, $SD = 8.30$; attained almost identical (and nonsignificantly different) mean scores on the Trust variable. Those given passive training, $M = 180.00$, $SD = 9.62$; also failed to differ significantly on Positive Feelings Toward the Trainer from those given CSTP, $M = 184.60$, $SD = 7.57$. Because subjects in the CSTP and Passive training treatments reported statistically equivalent levels of rapport with the trainer, any post-test hypnotizability differences between these

treatments cannot be accounted for in terms of rapport.

Hypnotizability

Treatment effects on CURSS dimensions. The three treatments were compared on the two pre- and post-test CURSS dimensions with separate 3 X 2 (treatment X trials) mixed ANOVAs. The treatment X trials interaction was significant for the CURSS:Q dimension, $F(2,27) = 19.06$, $p < .001$; the CURSS:S dimension, $F(2,27) = 15.05$, $p < .001$; and the CURSS:OI dimension, $F(2,27) = 13.33$, $p < .001$. The relevant means are given in Table 1.

Simple effects performed on each of these significant interactions indicated no significant pre-test differences between the treatments on any CURSS dimension. Furthermore, control subjects and subjects in the passive training treatment exhibited no significant differences from pre-test to post-test on any CURSS dimension. Alternatively, CSTP subjects exhibited significant increments from pre-test to post-test on the CURSS:Q, $F(1,27) = 54.47$, $p < .001$; the CURSS:S, $F(1,27) = 40.75$, $p < .001$; and the CURSS:OI, $F(1,27) = 31.15$, $p < .001$. Furthermore, significant differences between the treatments occurred at post-test on the CURSS:Q, $F(2,27) = 35.34$, $p < .001$; the CURSS:S, $F(2,27) = 18.42$, $p < .001$; and the CURSS:OI, $F(2,27) = 13.10$, $p < .001$. For each CURSS dimension followup post hoc tests (Newman Keuls) indicated that subjects given the CSTP attained significantly higher scores than those in the passive training or

control conditions. Subjects in the latter two conditions failed to differ significantly from one another on any CURSS dimension.

Treatment effects on SHSS:C dimensions. The means on each post test II SHSS:C dimension for subjects in the three treatments are given in Table 2. Separate one-way ANOVAs indicated significant treatment differences on the SHSS:C/O, $F(2,27) = 18.43$, $p < .001$; the SHSS:C/S, $F(2,27) = 21.38$, $p < .001$; and the SHSS:C/OI, $F(2,27) = 14.82$, $p < .001$. For each SHSS:C dimension post hoc (Newman-Keuls) tests indicated that CSTP subjects attained significantly higher scores than subjects in the passive training or control conditions. Subjects in the latter two conditions did not differ significantly on any SHSS:C dimension.

Discussion for Experiment I

Experiment I replicated the now common finding that cognitive skill training can produce large enhancements on behavioural and subjective dimensions of hypnotizability that are maintained across sessions and on different hypnotizability scales (e.g., Gorassini and Spanos, 1986; Kinney and Sachs, 1974; Spanos, Robertson et al., 1986). The finding that progressive relaxation training produces enhancements on indexes of relaxation, but fails to enhance hypnotizability was also replicated (Radtke et al., 1983; Simon and Salzberg, 1981).

Subjects in both the skill training and passive treatments were explicitly informed that their skill training was designed to enhance hypnotizability, and that their training had been successful in this regard with other subjects. Moreover, subjects in both of these treatments reported equivalently high levels of trust and positive feelings toward the trainer. Nevertheless, only those given skill training exhibited large hypnotizability gains. In fact, subjects who received the passive treatment showed no hypnotizability changes on any dimension of either post-test, and also failed to differ from no treatment controls on any post-test dimension.

These findings clearly contradict the hypothesis that high subject/trainer rapport is a sufficient condition for producing training-induced enhancements in hypnotizability. These findings are also inconsistent with the related hypothesis that training-induced hypnotizability gains simply reflect compliance on the part of subjects who wish to please the trainer. It is difficult to see why subjects who feel high rapport with the trainer should comply on hypnotizability post-tests only when they first received skill training, or why those who received passive training should comply by giving the requisite relaxation ratings, but then fail to comply on the hypnotizability post-tests.

A number of other studies also provide difficulties for the

hypothesis that compliance is the only (or most important) factor involved in producing skill training enhancements in hypnotizability. For example, Spanos, Robertson et al. (1986) gave one group of subjects the full three component CSTP while another group was administered only the attitude enhancement and imagery strategy components of the CSTP. Subjects in this latter group were not instructed to develop an active interpretational set toward hypnotic responding. Both groups were explicitly informed that their training would enhance hypnotizability, and both groups reported significant and equivalent increments in positive attitudes toward hypnosis. Nevertheless, only the group that received interpretational set information showed large gains in hypnotizability.

As already reviewed in the introduction, several studies have approached the issue of compliance in skill training by comparing subjects who receive skill training, subjects who attain high hypnotizability scores without the benefit of training (i.e., natural highs), and /or low hypnotizable subjects who are explicitly instructed to fake behaving like excellent hypnotic subjects on post-tests (Gfeller, 1987; Gorassini and Spanos, 1986; Spanos and Flynn, 1988; Spanos, Lush et al., 1987; Spanos, Robertson et al., 1986). If skill training simply produces high levels of compliance, then skill trained subjects are likely to perform similarly to those instructed to fake but differently from natural highs. Contrary to this hypothesis, these studies

collectively indicate that skill trained subjects and natural highs perform similarly to one another but differently from subjects instructed to fail.

Obviously, the present findings do not indicate that subject/trainer rapport fails to influence the hypnotizability gains produced by skill training. They do indicate, however, that high rapport is not a sufficient condition for the occurrence of such enhancements.

EXPERIMENT II

Socio-cognitive theorists usually conceptualize high levels of hypnotic responding as involving the application, by appropriately motivated subjects, of an interrelated set of social and cognitive skills to the task requirements specified by hypnotic suggestions (Diamond, 1977, 1982; Sachs, 1971; Sarbin and Coe, 1972; Spanos, 1986; Wagstaff, 1986). In order to respond both behaviourally and subjectively to suggestions subjects must know (tacitly if not explicitly) how to appropriately interpret task demands and how to use their imaginal and attentional abilities in order to generate the subjective effects requested. Cognitive skill training procedures are designed to teach people interpretive sets and cognitions that will enable them to generate behavioural and subjective responses to test suggestions, and attitudes and motivations that will enhance their willingness to apply what they have learned both in the training situation and in other hypnotizability test situations (Spanos, 1986).

Educational research suggests that students may often learn skills more efficiently when the teacher appears to them as supportive, encouraging, interested in what they are teaching, and warm, rather than as impolite and disinterested (Della Piana and Gage, 1959; Wheelless and Potorti, 1989). Obviously, this does not mean that warmth and encouragement in the absence of

specific instruction enables novices to learn particular skills. It simply suggests that conditions which foster high levels of trainee/trainer rapport are likely to motivate trainees to attend more carefully to the instructions conveyed to them, practice more seriously, apply what they have learned more consistently, and so forth.

In the second experiment applied these ideas to the context of skill training for hypnotizability. Low hypnotizables in one group were administered the CSTP under the standard conditions. These subjects experienced relatively high levels of rapport with the trainer as those in Experiment I. Low hypnotizables in a second group were also administered the CSTP but under conditions designed to minimize rapport. It was predicted that subjects in the standard condition would show larger gains on hypnotizability post-tests than those in the low rapport condition.

Method

Subjects

Thirty Carleton University undergraduates (17 males, 13 females) who had previously obtained low CURSS:Q scores (0-2) volunteered to participate in a three session hypnosis experiment. All subjects received course credit for their participation.

Procedure

Subjects were randomly assigned to three treatments with the

restriction of an equal number ($N=10$) in each treatment. Those in one group were administered the CSTP by a female experimenter under the standard, rapport facilitating conditions described in Experiment I. Subjects in a second group were administered the CSTP by the same experimenter under conditions designed to minimize subject/trainer rapport. Following the training session a different experimenter asked subjects to rate their impressions of the trainer on the Trust of the Experimenter and Positive Feelings Toward the Experimenter questionnaires. Subjects in both CSTP groups were later post-tested on the CURSS and SHSS:C in the manner and at the interval described in Experiment I. A group of no treatment control subjects were also post-tested as in Experiment I.

In order to minimize the development of rapport with those in the low rapport CSTP condition, the trainer greeted subjects coolly, minimized eye contact and did not thank subjects for coming or engage in any verbal pleasantries. Throughout the training the experimenter attempted by mannerisms and vocal inflections to convey the impression of bored disinterest in both the subjects and the proceedings. All instructions were read in a monotone while looking at the instruction sheet rather than at the subject. During the audio- and videotaped segments of the procedure it was made obvious that the tapes were being ignored by not watching the screen, yawning, doodling, and so on. When providing feedback to the subject the trainers replies were curt

and an attempt was made to convey an attitude of irritated disinterest.

Results

Manipulation Check

Rapport. Subjects in the standard CSTP treatment, $M = 82.10$, $SD = 9.57$, rated the trainer as significantly higher on trust than did those in the low rapport CSTP treatment, $M = 61.60$, $SD = 15.66$, $t(18) = 3.53$, $p < .002$. Standard CSTP subjects, $M = 170.5$, $SD = 15.68$, also ascribed higher positive feelings toward the trainer than did those in the low rapport CSTP treatment, $M = 119.00$, $SD = 27.16$, $t(18) = 5.19$, $p < .001$. In short, the trainer successfully induced different levels of rapport in the two CSTP treatments.

Hypnotizability

Treatment effects on CURSS dimensions. Separate 3×2 (treatment $\times$ trials) mixed ANOVAs performed on the three CURSS dimensions indicated significant interactions for the CURSS:O, $F(2,27) = 57.97$, $p < .001$; CURSS:S, $F(2,27) = 28.84$, $p < .001$; and CURSS:O₁, $F(2,27) = 16.57$, $p < .001$. The relevant means are given in Table 3. Simple effects indicated no between treatment pre-test differences on any CURSS dimension. Within-subjects simple effects indicated that control subjects and low rapport CSTP subjects showed no pre-test to post-test differences on any CURSS dimension. On the other hand, subjects in the standard

CSTP treatment showed large and significant gains from pre-test to post-test on the CURSS:Q, $F(1,27) = 192.97$, $p < .001$; CURSS:S, $F(1,27) = 64.10$, $p < .001$; and CURSS:OI, $F(1,27) = 45.20$, $p < .001$. Finally, at the post-test, there were significant differences between the treatments on the CURSS:Q, $F(2,27) = 67.28$, $p < .001$; CURSS:S, $F(2,27) = 50.95$, $p < .001$; and CURSS:OI, $F(2,27) = 17.21$, $p < .001$. Post hoc comparisons indicated that for each CURSS dimension subjects in the standard CSTP condition attained significantly higher scores than those in the low rapport CSTP and control conditions. The latter two conditions failed to differ significantly on any CURSS dimension.

Treatment effects on the SHSS:C. Separate one-way ANOVAs indicated significant between treatment differences on the SHSS:C/Q, $F(2,27) = 30.00$, $p < .001$; SHSS:C/S, $F(2,27) = 20.47$, $p < .001$; SHSS:C/OI, $F(2,27) = 22.47$, $p < .001$. The relevant means are given in Table 4. Post hoc analyses (Newman-Keuls) indicated that on each SHSS:C dimension, subjects given the standard CSTP treatment attained significantly higher scores than those in the low rapport CSTP or control treatments. The latter two treatments failed to differ significantly on any SHSS:C dimension.

Discussion for Experiment II

The findings of Experiment II indicate that the level of

subject/trainer rapport very substantially influences how subjects respond to skill training. Subjects who received skill training in a context marked by low rapport tended to describe their trainer in relatively negative terms and failed to show any increments in post-tested hypnotizability. Alternatively, subjects who were skill trained in an atmosphere that fostered positive feelings toward the trainer exhibited substantial gains on both the behavioural and subjective dimensions of the two hypnotizability post-tests. These findings are consistent with the correlational findings of Gfeller et al. (1987) and Cross and Spanos (1988) which indicated a positive correlation between ratings of subject/trainer rapport and hypnotizability gain following skill training. They are also consistent with the speculation that level of client/therapist rapport influences treatment success when hypnotic procedures are employed in clinical contexts (e.g., Barber, 1985).

EXPERIMENT III

There is an increasing literature which suggests that non-responsive hypnotic subjects may actively and intentionally resist responding to hypnotic suggestions (Spanos and Boderik, 1977; Jones and Spanos, 1982; Lynn, Weeks, Rhue, and Snodgrass, 1985). The aim of Experiment III was to examine the possibility that resistance to hypnotic suggestions may be due to low interpersonal rapport with the experimenter.

Given that rapport was manipulated successfully in Experiment II and subjects did not show the typical increase in susceptibility under the low rapport condition, it became of interest to determine whether subjects in the negative rapport condition absorbed and/or paid attention to the information provided during the training procedure. If low rapport with the experimenter prevented subjects from acquiring the training information then these subjects should not show an increase in susceptibility when later post-tested. On the other hand, subjects may have learned the training information, but because of negative feelings toward the trainer, failed to translate what they learned into post-test performance increments. If this is the case then procedures aimed at ameliorating subjects negative feeling may lead to post-test performance increments even in the absence of any further training. Such findings would support the view that at least some subjects (perhaps due to interpersonal

factors) do exhibit an active and purposeful resistance to hypnotic suggestions.

In the event that subjects in the low rapport condition exhibit an increase in susceptibility after an amelioration of their negative feelings toward the trainer, the role of rapport may be seen as important in not only facilitating the learning of new skills but also in getting subjects to utilize these skills.

Method

Subjects

Subjects consisted of forty Carleton University undergraduate (17 males, 23 females) volunteers who had previously been tested on the CURSS and obtained a low $\bar{Q}$ score. All subjects received payment or class credit for their participation.

Procedure

Subjects were randomly assigned to four treatments with the restriction of an equal number ($N = 10$) in each group. Those subjects assigned to the first group (Standard Rapport) were administered the CSTP under the standard, high rapport conditions described in Experiments I and II. Subjects in the second (Low Rapport) and third group (Low Rapport with Intervention) also received the CSTP but under conditions designed to minimize rapport between the subject and experimenter (details in Experiment II). Following the CSTP session subjects in all three

groups were asked by a different experimenter to rate their trainer on the Trust the Experimenter and Positive Feelings Toward the Experimenter questionnaires. Subjects in all groups were later post-tested on the CUPSS and the SHSS:C. Before those subjects in the third (Low Rapport with Intervention) group were administered the second SHSS:C post-test their scores on the first post-test were examined. Those subjects who maintained a low hypnotizability score were approached by the second experimenter who conveyed the following:

After seeing your scores on the last test I realized that something may be wrong because you didn't show any improvement, so I talked to your trainer (the woman who conducted your modification session). She told me that it had been a very hard day for her and a good many things had gone wrong and she thought that she was rude and inattentive and she'd like me to apologize to you for that. I'd like to ask you to please try to put aside the way she behaved. I know that she shouldn't have behaved the way she did and there is no excuse for it, but I'd appreciate it if you could please try to accept my apologies for what happened and try to think back to what you were taught in that session in order to respond successfully to the suggestions in the upcoming session.

As in the previous experiments a group of no treatment control subjects were also given the two post-tests.

Results

Manipulation Check

Rapport. A separate one-way ANOVA indicated significant differences between mean scores on the Trust in the Experimenter Scale for the Standard CSTP, Low Rapport, and Low Rapport with Intervention treatments groups. Subjects in the Standard CSTP treatment, $M = 84.30$, $SD = 7.17$; rated the trainer as significantly higher on trust than did those in the low rapport CSTP treatment, $M = 56.60$, $SD = 12.63$, or those in the low rapport condition with intervention, $M = 63.90$, $SD = 13.18$, $F(2,27) = 16.08$, $p < .001$. A Post hoc test (Newman-Keuls) indicated that subjects given the Standard CSTP treatment attained significantly higher scores than those in the Low Rapport and Low Rapport with Intervention groups. The means of the latter two groups did not differ significantly.

Standard CSTP subjects, $M = 168.4$, $SD = 15.05$; also ascribed higher positive feelings toward the trainer than did those in the Low Rapport CSTP treatment, $M = 115.30$, $SD = 23.65$, or those in the Low Rapport with Intervention group, $M = 130.00$, $SD = 21.62$, $F(2,27) = 17.99$, $p < .001$. Post hoc analysis (Newman-Keuls) indicated that for the Feelings Toward Experimenter questionnaire the Standard CSTP group attained significantly higher scores than

those in the Low Rapport or Low Rapport with Intervention treatments. Subjects in the latter two treatment groups reported significantly equivalent levels of rapport with the trainer.

Hypnotizability

Treatment effects on CURSS dimensions. Separate 4 X 2 (treatment X trials) mixed ANOVAs performed on the three CURSS dimensions indicated significant interactions for the CURSS:Q, $F(3,36) = 33.15$, $p < .001$; CURSS:S, $F(3,36) = 13.53$, $p < .001$; and CURSS:OI, $F(3,36) = 9.72$, $p < .001$. The relevant means are given in Table 5. Simple effects indicated no between treatment pre-test difference on any CURSS dimension. Within-subjects simple effects indicated that Low Rapport CSTP, Low Rapport CSTP with Intervention and Control subjects showed no pre-test to post-test differences on any CURSS dimension. Subjects in the standard CSTP treatment group showed large and significant gains from pre-test to post-test on the CURSS:Q, $F(1,36) = 114.07$, $p < .001$; CURSS:S, $F(1,36) = 57.61$, $p < .001$; CURSS:OI, $F(1,36) = 46.39$, $p < .001$. Lastly, at the post-test there were significant differences between the treatments on the CURSS:Q, $F(3,36) = 34.08$, $p < .001$; CURSS:S, $F(3,36) = 26.48$, $p < .001$; and CURSS:OI, $F(3,36) = 10.32$, $p < .001$. For each CURSS dimension followup post hoc tests (Newman Keuls) indicated that subjects given the standard CSTP attained significantly higher scores than those in the low rapport CSTP, low rapport CSTP with intervention or control conditions. Subjects in the last three groups failed

to differ significantly on any CURSS dimension.

Treatment effects on SHSS:C dimensions. The means on each post test 2 SHSS:C dimension for subjects in the four treatments are displayed in Table 6. Separate one-way ANOVAs indicated significant treatment differences on the SHSS:C/O, $F(3,36) = 16.85$, $p < .001$; the SHSS:C/S, $F(3,36) = 22.67$, $p < .001$; and the SHSS:C/OI, $F(3,36) = 13.00$, $p < .001$. For each SHSS:C dimension post hoc tests indicated that Standard CSTP subjects attained significantly higher scores than subjects in the Low Rapport CSTP, Low Rapport CSTP with Intervention or the Control conditions. Subjects in the last three groups did not differ on any SHSS:C dimension.

Discussion for Experiment III

The major findings of Experiment II were successfully replicated in Experiment III. Once again, subjects who received skill training under low rapport conditions reported feeling less positively toward their trainer and reported less trust in their trainer than did those administered the CSTP under the standard high rapport conditions. As in Experiment II, the rapport variable also exerted significant effects on post-tested hypnotizability. Subjects in the standard CSTP condition attained significantly and substantially higher scores on all post-test CURSS dimensions than did the subjects trained under

low rapport conditions.

The most important finding of Experiment III indicates that the intervention aimed at ameliorating the negative feelings of low rapport subjects toward their trainer exerted no significant effects on any of the post-test SHSS:C dimensions. Both the low rapport trained subjects who were administered the intervention and the low rapport subjects who did not receive the intervention attained scores in the low range on the SHSS:C/Q. Furthermore, subjects in both of these conditions attained significantly lower scores on all SHSS:C dimensions than did those who received skill training under high rapport conditions. Possible reasons for these findings are addressed in the general discussion.

GENERAL DISCUSSION

Taken together, the results of the first three experiments suggest not only that rapport is important in skill training, but also, how it is important. Experiment I indicated that high subject/trainer rapport was completely ineffective in facilitating hypnotizability gains when the training program did not teach effective ways of interpreting and responding to suggested demands. Thus, high subject/trainer rapport is clearly a necessary but not a sufficient condition for the attainment of large gains in hypnotizability.

Both Experiments II and III indicate that skill training in the absence of subject/trainer rapport is ineffective at enhancing hypnotizability. When rapport was high skill trained subjects in both of these experiments exhibited the usual large gains in hypnotizability. However, when rapport was low skill trained subjects in both experiments failed to show significant hypnotizability enhancements.

As indicated earlier, at least two hypotheses can be proffered for why subjects administered skill training under conditions of low rapport failed to show post-test hypnotizability gains. On the one hand, because they held negative feelings toward the trainer these subjects may have lacked the motivation required to learn the skills that the training was designed to impart. For

example, these subjects may have failed to attend to the videotaped information designed to alter their interpretations of suggested demands, or made no effort to acquire the imagery strategies taught during the practice suggestions. In short, this hypothesis suggests that the low levels of post-test responding shown by low rapport subjects stemmed from their failure to acquire the relevant skills and interpretations during training.

A second hypothesis suggests that low rapport subjects may have acquired the information transmitted during skill training but, because of negative feelings toward the trainer refused to exercise these skills during post-testing. If this were the case, then procedures which soothed subjects' negative feelings toward the trainer and enhanced their motivation to respond should have disinhibited the relevant skills and led to post-test hypnotizability increments in the absence of further training.

The results of Experiment III failed to support this "inhibited skills" hypothesis. In that Experiment III low rapport subjects continued to attain low hypnotizability post-test scores even after the intervention of a second experimenter who behaved toward them warmly, apologized for the rudeness of the trainer, and encouraged them to try their best to use whatever skills they had acquired during training. These findings tentatively support the hypothesis that high rapport facilitates the acquisition of

skills and interpretations that enables subjects to exhibit enhanced post-test responding but such an interpretation must be made with caution. It is always possible to argue that the low rapport subjects did, in fact, learn the requisite skills, but developed such strong negative attitudes toward the trainer that they refused to implement these skills even after the apology and encouragement offered by the second experimenter. In other words the amelioration manipulation did not work. However, this interpretation seems somewhat forced given the failure of low rapport subjects in the intervention group to exhibit even a modicum of post-test hypnotizability gain. Nevertheless, this hypothesis could be further tested by strengthening the intervention given between two post-tests or by having subjects fill out the rapport questionnaires once again after the second post-test as a manipulation check. Failure to find increments on the second post-test following even stronger intervention or evidence to suggest that subjects did indeed change their negative attitude toward the experimenter, would strengthen the hypothesis that low rapport during training interferes with the acquisition rather than simply with the implementation of relevant skills and interpretations.

Perhaps it would be of use in future experiments to test the recall of low rapport subjects for the information provided in the modification session, therefore providing a more direct method of testing whether low rapport interferes with the acquisition of information taught during the CSTP.

In summary, the results of the three experiments suggest that high rapport with a trainer facilitates skill training for hypnotizability for the same reasons that it facilitates the acquisition of more mundane skills such as learning arithmetic and learning to drive. Namely, people who like their instructor are likely to pay attention to and utilize the instructions they are administered. If the instruction does, in fact, teach useful skills, then those who like and trust the instructor are more likely to learn and successfully apply the skills than those who do not like or trust their instructor.

It is, of course, reasonable to suppose along with Bates et al. (1987) that subjects who like and trust their trainer, among other things, wish to please the trainer by doing well. For most subjects, however, doing well at skill training is unlikely to mean complying behaviourally on the post-tests in the absence of the corresponding subjective experiences. Not only is such behaviour likely to be defined by both the trainer and subject as cheating, it is also not required when "doing well" can instead be accomplished by learning to generate the combinations of subjective experience and overt behaviour called for both in the training session and on the hypnotizability post-tests.

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APPENDIX A

MODIFICATION INSTRUCTIONS

You have been chosen for this study because you have shown low susceptibility in a previous hypnosis session. We believe that people show low responsiveness to suggestion because they are not quite sure how they should be thinking or acting in response to suggestions. Research has shown that instruction and practice can significantly increase an individual's responsiveness. So today's session is a practice/training session.

The procedure is this: First you will hear a lengthy introduction to hypnosis. It will outline some of the myths and misconceptions of hypnosis. For example, hypnosis is not a trance state, there is no loss of control, no loss of consciousness. The person responding to suggestions is in complete control, very aware of his/her mind and body. In fact, the person who is responding hypnotically is probably more aware and more in control of directing their minds than at any other time during the day. The sleep suggestion in the "induction" is there to help people become calm and relaxed in order that they may concentrate. (May be some discussion on any of these myths according to the subject.)

Following the taped introduction to hypnosis, you will hear an

introduction to the first suggestion. There will be four suggestions presented in all. After each one is introduced you will view a video tape of a subject responding to the suggestion. She has practiced the skill which you are going to learn today. You will notice that this tape is not of a spontaneous session such as this one. Rather, it is a condensed presentation of many points which we wanted to communicate to you.

The subject on the video tape will be verbalizing her responses throughout the session so that you will know what kinds of things she is thinking about. You will not be expected to do this. Following this you will see a short interview during which the major points will be clarified. Pay close attention to these points.

Then you will have an opportunity to practice responding to the suggestion yourself. In this way, we will work with four suggestions together using a video tape as a model. At the very end of the session, after you have practiced the four suggestions, you will be given four different suggestions which will be presented one after the other. You will respond to this series without any instructions or coaching. This is your opportunity to demonstrate whatever skills you have acquired during the session in a spontaneous manner. Do you have any questions about the procedure?

Arm Rising Suggestion

EXPERIMENTER ROLLS THE AUDIO TAPE UNTIL THE LAST LINE OF THE ARM RISING SUGGESTION: "Here is the subject responding to the arm rising suggestion". THEN STOP THE AUDIO TAPE AND TURN ON THE VIDEO TO PLAY THE RESPONSE AND THE INTERVIEW FOR THIS SUGGESTION.

Discussion With Subject:

You will notice that there are two parts involved in responding to any suggestion, the physical and the mental. For example, for the arm rising suggestion the subject must physically raise her arm, some "thing" does not come along and raise it for her. However, it feels like it's going up by itself because of the mental imaginings.

You must concentrate on a mental image which is consistent with the suggestion, such as imagining that your arm is being pumped up with helium or whatever. Some people find that imagining balloons attached to their arm is a good image to work with. Others find that they can involve themselves in the suggestion with an image of a pulley slowly pulling their arm up. Others relate to that sensation you get when you are in the water and your arm floats upwards. Pick a mental image that you can relate to, one that you can work with. If you start with one type of mental imagining and you find you cannot focus on it for the full

length of the suggestion, feel free to incorporate another imagining.

The subject , you will notice, did not limit herself to the details provided by the suggestion. She elaborated upon the suggestion by thinking about the hose leading to the pump and the details of the pump itself. She mentions that she did not let criticisms or comments about what she was doing arise. The mind can only attend to one thing at a time and she kept it concentrated on the experience of the suggestion. Any inner verbalization must be in keeping with the suggestion. "It's light" etc., not "this is dumb" or "it's heavy."

Feedback between these mental and physical aspects reinforce each other. The physical movement of the arm rising reinforces the mental image which in turn reinforces the physical movement. The result is that there is a feeling of lightness and the feeling that it is going up by itself. You must make it feel as if it is going up by itself.

HELPFUL HINTS IF THE SUBJECT HAS TROUBLE.

You will notice that as you take a deep inhalation your upper body moves. Try, if you are having trouble with beginning the physical movement, raising your arm with each breath, letting it rest on the exhale and raising it more on the next inhale. Deep

breathing and relaxation is appropriate to a suggestion which involves lightness. Use a mental image that is familiar to you. Keep the arm loose not tight or clenched. Otherwise the feedback is of heaviness, etc. So pick an image to work with. I'll play the suggestion and you try it, using the things you have just seen and we have talked about. Sit back and close your eyes.

THE EXPERIMENTER PLAYS THE TAPE OF THE ARM RISING SUGGESTION. UNOBTRUSIVELY THE EXPERIMENTER SCORES THE SUBJECT ON THE OBJECTIVE MEASURE. IF THE SUBJECT RAISES HIS/HER ARM MORE THAN SIX INCHES THE SUBJECTS PASSES THE OBJECTIVE ASPECT OF THE ITEM AND RECEIVES A "1". IF THE SUBJECT DOES RAISE HIS/HER ARM MORE THAN SIX INCHES THE SUBJECT FAILS THE OBJECTIVE ASPECT OF THE SUGGESTION, WILL GET A "0" AND HAVE TO TRY IT AGAIN. AS SOON AS THE SUGGESTION IS OVER THE EXPERIMENTER GIVES THE SUBJECT THE 2-PAGE 2-QUESTION SUBJECTIVE EXPERIENCE ITEMS. NO TALKING WITH THE SUBJECT UNTIL THESE HAVE BEEN ANSWERED. SCORING ON THE SUBJECTIVE QUESTIONS IS AS FOLLOWS:

THE SUBJECT MUST RESPOND TO BOTH QUESTIONS WITH A (c) OR A (d) IN ORDER TO PASS THE SUBJECTIVE ITEMS. IN ORDER FOR THE SUBJECT TO MOVE ONTO THE NEXT SUGGESTION HE/SHE MUST HAVE PASSED THE OBJECTIVE ITEM AS WELL AS BOTH SUBJECTIVE QUESTIONS. A "0" ON THE OBJECTIVE WITH PASSES ON THE SUBJECTIVE DOES NOT ALLOW THE SUBJECT TO MOVE ON. CONVERSELY, A PASS ON EITHER OR BOTH SUBJECTIVE QUESTIONS DOES NOT CONSTITUTE AN OVERALL PASS ON THE

SUGGESTION UNLESS THE OBJECTIVE SCORE IS A "1". THIS SCORING PROCEDURE IS USED FOR EACH SUGGESTION DURING THE SESSION. THE SUBJECT MAY REPEAT EACH SUGGESTION ONLY ONCE.

IF THE SUBJECT MUST REPEAT THE SUGGESTION THE EXPERIMENTER REINFORCES ANYTHING POSITIVE ABOUT THE SUBJECT'S RESPONSE. ASK WHAT MENTAL IMAGE THE SUBJECT USED AND PERHAPS SUGGEST AN ELABORATION OR A DIFFERENT ONE. REITERATE THE MAJOR POINTS OF THE RESPONSE AND MAKE SURE THEY ARE CLEAR TO THE SUBJECT. EMPHASIZE STRONG CONCENTRATION AND INVOLVEMENT. CHECK VERBALIZATION FOR JUDGMENTS OR CRITICISMS DURING THE RESPONSE. PERHAPS THE SUBJECT IS TRYING TOO HARD OR IS TOO RIGID, SOMETIMES TOO MUCH EFFORT SERVES ONLY TO REMIND THE SUBJECT THAT THEY ARE UTILIZING SOME STRATEGIES AND THEREFORE DOES NOT ALLOW THAT SENSE OF "INVOLUNTARINESS" TO DEVELOP.

IF THE SUBJECT MUST REPEAT THE SUGGESTION ROLL THE SECOND TAPE WHICH ONLY HAS THE PRACTICE SUGGESTIONS ON IT. SCORING PROCEDURE IS THE SAME AS ABOVE. THE SUBJECT GOES ONTO THE SECOND SUGGESTION REGARDLESS OF THE SCORE. IF SUBJECT DID NOT IMPROVE TELL THEM IT IS A DIFFICULT ONE AS IT GOES AGAINST GRAVITY AND THAT MOST PEOPLE FIND THE NEXT SUGGESTION MUCH EASIER.

Hand Lock Suggestion

ROLL THE AUDIO TAPE UNTIL THE VOICE SAYS: "She will verbalize aloud the appropriate kind of thoughts and imaginings one should have during the suggestion." THEN PLAY VIDEO OF THE SUBJECT RESPONDING AND THE INTERVIEW.

Discussion with the Subject:

This suggestion is easier for a lot of subjects because it is easier to enter into the physical part of the suggestion. As you were told on the tape, the challenge to try to pull your hands apart is part of the suggestion. By the time you are asked to try to pull your hands apart, you should be so involved in your imagining, it will feel as if you really cannot pull them apart.

Also, as you were told for the first suggestion, you are not limited to using the image given in the suggestion. If you find it easy to imagine your hands welded like two cold blocks of steel, that is fine. But if you find this a difficult situation to imagine, feel free to imagine anything you like as long as it is consistent with the idea that you cannot get your hands apart. Some people have found it useful to imagine that their hands are glued together or bound together by heavy string or chains.

When asked to try to pull your hands apart, you can reinforce

your mental image by pressing down on your fingers and pushing on your palms as your hands are clasped together (demonstrate for subject). This way, you can actually make a moderate physical effort to pull your hands apart while ensuring that they will not actually come apart. The pressure of the pulling/pushing of the fingers and palms creates a tension that easily reinforces a "can't pull apart" feeling. Do not try too hard though because you want it to seem that this is not happening through any effort on your part. In other words, you want it to seem as if you are trying but somehow just cannot get them apart. If you have ever tried to move something impossibly heavy or stuck you will know the feeling of "can't do it" and be able to bring that feeling to the hand lock suggestion. The inner dialogue should be along these lines: "It's stuck", "I can't pull them apart" etc. O.K., I will play the suggestion now. By the way, you may put your hands on your lap if you want.

THE EXPERIMENTER PLAYS THE TAPE WITH SUGGESTION AND SCORES ACCORDING TO OBJECTIVE "PASS" (1) (IF THE HANDS DID NOT COME APART) OR "FAIL" (IF THE HANDS DID COME APART). AFTER THE SUGGESTION IS OVER GIVE THE SUBJECT THE 2 QUESTIONS PERTAINING TO THE SUBJECTIVE EXPERIENCE DURING THIS SUGGESTION. SCORE THESE AS IN THE ARM RISING SUGGESTION.

Book Suggestion

PLAY INTRODUCTION ON THE AUDIO TAPE AND THEN AT "pay careful attention" STOP IT AND TURN ON THE VIDEO TAPE FOR THE RESPONSE AND THE INTERVIEW. STOP VIDEO.

Discussion with the Subject:

For this suggestion, it is important to embellish the imagining with as many details as you can. First, pick a place on the table where you are going to imagine the book to be. Once your eyes are open just keep looking at that place on the table. Of course, you will not see a real, concrete book, but in you mind's eye you can trace the outline of where the book would be if it were really there, imagine what angle it's on, is it even with the edge of the table? Off to the side, and so forth. Imagine where you will be moving it with your hand. Think about the size of the book, how much space it would take up on the table, what colour it is, what the title looks like and where it is on the book, is the book paperback or hard cover? etc.

Have you got a desk at home or in the library where you habitually study? If so, maybe you would like to imagine that you are sitting there studying and that you are going to change to another topic so you want to move this book to the side.

Pick a book you know, something you are familiar with. If you

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want, you can imagine that you brought it with you and you have just placed it on the table. You may use a magazine if you wish. Also, some subjects have said that a simple cover is best and they can "see" it more clearly than one with a complex design or colour scheme.

Make sure that you have the image firmly in your mind's eye before you open your eyes. You may experience a slight "jolt" or disconcerted feeling when you first open your eyes, but just calmly continue to hold the image and "build" it on the table in front of you. It is important that you involve yourself with the suggestion, without distraction, for the whole time. If the image fades or the concentration wanes, just bring it back by working with one of the details of the book. Like the other suggestions this one involves a physical movement, that of pushing the book aside. Even if you are having difficulty imagining the book there, follow through on the physical motion of pushing the book aside. Just move your hand where you have built the image. While you are doing this, imagine what the book would feel like against your hand and how much pressure it would take to push it aside.

HELPFUL HINTS: IF THE SUBJECT HAS TROUBLE WITH THIS SUGGESTION, FOR EXAMPLE, THEY SAY THEY CANNOT SEE THE BOOK, TELL THEM THAT THIS SITUATION IS SOMEWHAT LIKE THAT OF CHILDREN PLAYING HOUSE IN THE BACKYARD. THEY IMAGINE THAT THE LAWN IS DIVIDED INTO

DIFFERENT ROOMS OF THE HOUSE AND THEY ALL TAKE CARE TO WALK THROUGH THE "DOORWAYS" INSTEAD OF THE "WALLS" EVEN THOUGH EVERYONE WOULD READILY ADMIT THAT THEY DON'T SEE WALLS OR DOORWAYS OR ROOMS. SIMILARLY, HERE YOU WANT TO BEHAVE AS IF THE BOOK YOU HAVE IN MIND IS REALLY THERE.

Now that you have a book in mind, sit back and relax, I am going to play the suggestion now.

THE EXPERIMENTER PLAYS THE SUGGESTION. THE SUBJECT PASSES THE OBJECTIVE ITEM IF THEY PUSH THEIR HAND ACROSS THE TABLE. WITH PASSING THE SUBJECTIVE SCALE ALLOWS THE SUBJECT TO GO ON TO THE NEXT SUGGESTION. IF THE SUBJECT NEEDS A SECOND TRIAL ASK:

What book were you using? (maybe it's too vague or complex).
What difficulty did you experience? Were you commenting on what you were doing? Were you able to "see" the book first clearly in the minds eye?

Amnesia Suggestion

THE EXPERIMENTER PLAYS THE AUDIO TAPE FOR THE INTRODUCTION TO THE SUGGESTION UNTIL IT SAYS, "attend carefully to what she does." THEN ROLL THE VIDEO TAPE FOR THE DEMONSTRATION AND INTERVIEW WITH THE SUBJECT.

Discussion with the Subject:

If you want, you can do what the subject on the tape did and spend the whole time thinking of other things so that the memories of the suggestions will not come to mind. If any of them do pop into your thoughts, write it or them down right away and continue to distract yourself so that the other suggestions will not come back along with it.

If you find it difficult to distract yourself this way, you might want to try a different technique. You could try imagining that you are in the type of situation where you know someone's name but when it comes time to introduce them you simply cannot remember it. Or you might imagine what it feels like to be writing an exam and being unable to recall the answer to a question you studied the night before. A good thing to do in this case is to look at the blank piece of paper in front of you and imagine your mind to be blank too. In fact, some people only need to be confronted with a blank piece of paper to feel that certain vague and unfocussed feeling. Some subjects find it useful to imagine that the suggestions are written on a blackboard. When the suggestion to forget is played they then imagine that it is being erased. Anytime they feel an urge to recall the suggestions they just imagine that the blackboard wiped clean and do not pursue the matter any further. When the amnesia suggestion is cancelled, they imagine the suggestions being written on the board again. Some people find that music is

a powerful distraction. Once they click into a song or a jingle they are oblivious to any other.

Some people are able to just let their mind wander and need make little or no effort to distract themselves from focussing on the suggestions; they have things to think about, memories to contemplate, homework questions to consider, etc. Whatever technique you decide to use, it is important that you make believe that you are doing nothing to make the suggestions go away, that it requires little effort. You want it to feel like you are trying to remember them but just cannot. If your attention is on other things it will feel as if the suggestions have "gone away". O.K., I am going to play the suggestion now. Sit back and relax.

THE EXPERIMENTER PLAYS THE SUGGESTION AND PROVIDES BLANK PAPERS TO THE SUBJECT AT THE APPROPRIATE TIMES. SCORE OBJECTIVE RESPONDING. AFTER THE SUGGESTION IS OVER THE EXPERIMENTER GIVES THE SUBJECT THE SUBJECTIVE QUESTIONS. REINFORCE THE SUBJECT'S RESPONDING. IF THE SUBJECT FAILS THE SUGGESTION FIND OUT WHAT THE DIFFICULTY IS AND MAKE SUGGESTIONS FOR SUCCESSFUL RESPONDING.

The Test Suggestions:

O.K. Now I'm going to play the tape with four different suggestions on it. They will be presented without any discussion

or dialogue between us. This is your chance to utilize the skills you have developed today. The suggestion will be introduced and then there will only be enough time for you to respond. Just follow along and attend carefully to the suggestions. Afterwards we will talk a bit more.

THE EXPERIMENTER PLAYS THE AUDIO TAPE. IT HAS A SHORT INTRODUCTION TO THE PROCEDURE FOR THESE NEW TEST SUGGESTIONS AND THEN GOES RIGHT INTO THE FIRST ONE. THE EXPERIMENTER PROVIDES PAPER FOR THE AMNESIA SUGGESTION. THE EXPERIMENTER SCORES EACH ON THE OBJECTIVE MEASURE AS IT IS HAPPENING. AT THE FINISH OF THE FOUR ITEM TEST THE EXPERIMENTER HANDS THE SUBJECT THE SUBJECTIVE QUESTIONS. ONCE AGAIN NO TALKING WITH THE SUBJECT UNTIL THEY HAVE COMPLETED ALL THE QUESTIONS. WHEN THE SUBJECT HAS ANSWERED ALL THE QUESTIONS REINFORCE THEIR PARTICIPATION, IMPROVEMENT, ETC. COMMENT ON THE ONES THEY FOUND EASY AND HARD, ETC. ASK THEM ABOUT THEIR MENTAL IMAGES, ETC. THEN SAY:

That is the end of the session today. The skill you have practiced today may be utilized in other situations. As well, any time you are called upon to respond to suggestions you should use the techniques that you have learned and worked with here.

EXPERIMENTER SCHEDULES FOR THE NEXT SESSION WHICH IS THE POST-TEST OF SUSCEPTIBILITY.

APPENDIX B

Audio Training Information

Remember how in old movies the hypnotist would have the subject fixate on a dangling pocket watch? As the subject followed the watch with his or her eyes, the hypnotist would suggest repeatedly in a low voice something like: "You are becoming sleepy; your eyelids are getting heavier and heavier and are closing, closing completely; you want to go to sleep; you are falling, falling, falling into a deep, deep sleep". In one form or another these kinds of instructions are still presented by hypnotists to their subjects today. You may recall that in your last session in this lab you were presented these kinds of instructions, albeit without the watch. You were repeatedly told by the voice on the tape recorder that you were falling into a deep sleep.

It was once commonly believed that giving subjects repeated instructions to go to sleep would cause them to go into a hypnotic trance. When in this trance, the subject was believed to come under the direct control of the hypnotist. The hypnotist was believed to take over the hypnotized subject's will and thereby became able to command the subject's mind and body to do practically anything. The subject was thus viewed as an automaton or robot who was fully subject to the commands of the

hypnotist.

This view of hypnosis is one of the great misconceptions in the history of psychology. Subjects in a hypnotic session are, in fact, fully awake and are in full control of all their actions. The repeated instructions for sleep do not cause you to go into a "trance" in which you "lose control of your actions" and become a "robot". No such hocus pocus is involved in hypnosis. Hypnosis has nothing whatsoever to do with any loss of consciousness, trances, or a loss of control. Far from involving a loss of control, hypnosis actually involves a skill that is within the full control of the individual. It is a skill that anyone can learn and master if given proper instructions and enough practice. In this sense it is no different than learning the skills required to ride a bicycle, to swim, or to solve mathematical problems. The repeated instructions for sleep simply serve the purpose of enabling you to relax and put your mind on learning the hypnotic skill.

Few people are ever taught the hypnotic skill and, as a consequence, few people are able to produce hypnotic responses. Asking the subject who has never learned the hypnotic skill to respond hypnotically is similar to asking a person who has never learned to swim, to swim the length of the pool. Clearly, the non-swimmer has first to learn how to swim before being able to swim the length of the pool. Similarly, the subject who has never learned the hypnotic skill has first to learn this skill

before being able to produce hypnotic responses.

In order to enable you to learn the hypnotic skill, I am going to show you exactly what this skill involves and then give you plenty of opportunity to practice it. Learning the hypnotic skill is fully within the capabilities of normal individuals provided they know just what it is that they must do. In fact, research shows that any well-adjusted person of your age is fully able to learn the hypnotic skill provided he or she puts forth sufficient effort. As in learning any new skill, learning this skill is completely within your control and is quite rewarding to master. In addition, individuals who learn the hypnotic skill find it a very interesting experience.

What hypnotic skill involves is that you make believe something. Before I describe this skill in more detail, let me give you an example. You are familiar with the Charlie Brown comic strip. In it, Charlie Brown's dog, Snoopy, is often pictured sitting on his doghouse wearing a helmet and a scarf, paws outstretched, and gritting his teeth. Snoopy gets deeply involved in a make-believe situation. He imagines himself to be in a situation in which he is a World War I flying ace in the air somewhere over Germany in hot pursuit of the Red Baron. He gets so involved in his make-believe actions that, for the moment, he actually believes he's flying an airplane somewhere over Germany. He simply forgets that he's really a dog on a doghouse. It's plain

to see that Snoopy is in total control of his actions.

Let us more carefully analyze what Snoopy is doing. First off, he himself creates an entire make-believe situation. He does this through the direct control of his imagination. He actively imagines such things as the clouds around him, his own airplane and that of the Red Baron's, the roar of the engines, and everything else that is part of such a situation. In short, through his imagination, in which he is in direct control, he creates an entire make-believe situation.

However, it is important to understand that the hypnotic skill involves more than simply imagining a particular situation. A further analysis of the Snoopy example will illustrate what I mean. Snoopy did something more than simply create a new situation. He went one step further and actually became a part of that situation. He completely replaced the situation he was in formerly with a new one; he let the "World War I" situation completely replace the one in which he was merely "a dog on a doghouse". This had the interesting effect of making the "World War I" situation seem real because it was the only one to which Snoopy was directing his attention. According to modern psychology's definition of hypnosis, Snoopy was hypnotized because he was so preoccupied with his imaginings of the make-believe that he forgot they were make-believe.

This skill is therefore not unusual not mysterious. It's rather common occurrence and what is meant when someone is said to be "absorbed", or "deeply involved", or "really into" their thoughts and imaginings. This skill is, of course, totally within your control for you can initiate or terminate it whenever you like. To further illustrate the degree of control you have in hypnosis, think of what young children are like when they play. Needless to say, they quite readily get involved in make-believe. Nonetheless, even children possess the ability to shift from the real to the imaginary world and back again whenever they like. For instance, when mother beckons that supper is ready, a child easily shifts his attention from the make-believe world to the real world goal of satisfying his hunger.

It's worth noting that we never lose our skill at becoming deeply involved in our imaginings of make-believe; for one reason or another, however, we simply do not do it as much as children do. At any rate, you will no doubt be surprised at how good you are at this skill. Our research suggests that you will get better and better at it the more you get a chance to practice.

Now, what are you going to make-believe? You will not be asked to do things as extreme or as potentially embarrassing as being a World War I flying ace. Instead you will be asked to involve yourself in some simple make-believe actions of a non-embarrassing kind. Soon you will be presented with some

suggestions, four in all, not much different from the ones you were presented with the last time you were in the lab. It is these suggestions that will provide you with the make-believe situation that you will involve yourself in.

The first suggestion you will be presented with is an arm-rising suggestion. It will inform you of exactly what it is you are to make-believe. It will specifically tell you that your arm is like a hollow balloon being pumped up with helium, and that the helium being pumped in makes your arm so light that it rises into the air by itself. In response to this suggestion, you must do everything that is required of someone making believe such a thing: you must lift your arm up, and you must imagine that the arm is really a hollow balloon that is being pumped up full of helium, and anything else you wish to imagine that is consistent with such a make-believe situation.

Of course your arm will not really go up by itself, you must raise it. However, you can make it feel like it is going up by itself by focusing on the make-believe situation that your arm is hollow and being filled with helium. As long as you focus in and elaborate on this make-believe situation and do not let yourself think about things, the arm will feel like it is going up by itself.

You must become very deeply involved in the make-believe and

actually make it seem real. Becoming involved requires that you keep your attention only on the things the suggestion tells you to imagine. You must rivet your attention on the hollow arm, its lightness, the fact that it's going up by itself, and so on. Don't imagine anything or pay attention to anything that is unrelated to the make-believe situation. Attending strongly to imaginings of the make-believe situation only, will help prevent the possibility of irrelevant thoughts entering your mind and shaking you out of the make-believe world.

Before you are given an opportunity to respond to this suggestion you will be shown a videotape of another subject responding to it. When this subject's responses were taped, she had already gone through a good deal of practice at responding to this suggestion and several others. I am presenting you her responses to give you a clearer idea on how properly to respond to this suggestion. When I role the tape, you will see the subject, you will hear the arm-rising suggestion being played in the background as she responds to it, and you will observe that the subject verbalizes many of her thoughts aloud. She was asked to do this as a means of illustrating to viewers such as yourself that all of her thoughts and imaginings during the suggestion are on the make-believe situation, and on nothing else.

[Play video tape of model]

Arm-Rising Suggestion

Close your eyes. Place your right arm straight out in front of you at shoulder height. [Pause.] Imagine that your right arm is light and hollow like a balloon, and that it is gradually being pumped up with helium. The helium is lighter than air and it is causing your hollow arm to become lighter and lighter and to rise in the air. It's slowly rising into the air. More and more helium is being pumped into your arm, and the arm is getting lighter and lighter and just continues to rise. [Wait 25 seconds.] Relax your arm now and place it on the table and continue to relax.

The next suggestion to be presented is the hand-lock suggestion. It will tell you just what you are to make-believe. It will initially tell you to fold your hands. Then it will tell you to imagine that your hands are really to hunks of steel that are welded together. Following this, the suggestion will challenge you to pull the hands apart. Despite this challenge, don't pull the hands apart. Instead make-believe that the hands are unable to come apart by virtue of their being welded together. You see, the challenge is all part of the make-believe. It is meant to establish the fact that the hands are so tightly welded together that despite your best efforts you simply cannot get them apart.

Remember what the hypnotic skill involves. You must let yourself become so deeply involved in the make-believe that it actually

seems real. Do this by only imagining and thinking things that are connected with the make-believe situation.

Now, observe the subject responding to the hand-lock suggestion. As she is being presented with the suggestion, she will carry out all the suggested actions and, in addition, she will verbalize about the appropriate kinds of thoughts and imaginings one should have during this suggestion.

[Play videotape of model]

Hand Lock Suggestion

Close your eyes. Place your hands on the table, and clasp them together, interlacing the fingers. [Pause.] Imagine that your hands are two pieces of steel that are welded together so that it is impossible to get them apart. They are two pieces of steel welded together. When I ask you to pull your hands apart, they will be stuck and will not come apart no matter how hard you try. O.K., try to pull them apart. [Wait 25 seconds.] O.K., now relax, the suggestion is over, your hands can come apart again.

The next suggestion will tell you that you see a book on the desk in front of you even though there is really no book there. The suggestion will start out by telling you to close your eyes and will tell you that the book is on the desk in front of you. It

will suggest that you will see the book once you open your eyes. The suggestion will then instruct you to open your eyes and actually see the book. In response to this suggestion, you are to make yourself see the book and, in addition, you are to make-believe that the book you are seeing is physically there and part of the natural settings of the room, and not simply something you are artificially making appear. The main idea, then, is to make the book you see seem like a natural part of the room. Just let yourself become totally involved in making-believe that the book is really there.

There is another thing; toward the end of the suggestion you will be asked to push the book off to the side. This action is also part of the make-believe. Even as you do it, continue to make-believe there is really a book there.

Now, observe the actions of the subject on the videotape when she is presented with the suggestions to see the book. As before, she will verbalize aloud the appropriate kinds of imaginings and thoughts one should have when acting in response to this suggestion. Pay careful attention.

[Play videotape of model]

Book Hallucination Suggestion

Place your hands on your lap and close your eyes. [Pause.] I am not sure if you've noticed, but there is a book of mine on the desk in front of you. It is as average sized book, one like hundred you've seen. It is right there in front of you on the desk. Open your eyes and look at the book sitting there on the desk. [Wait 20 seconds.] To avoid the book being in your way, why don't you just slide it off to the side. [Wait 10 seconds.] The image of the book is now fading. It is faded completely and you can not longer see the book.

The next suggestion to be presented os one that will tell you that you are forgetting something you know. Specifically, the suggestion will state that the memories of the suggestions you were presented earlier in this session are fading completely from your mind. The suggestion I am referring to are, of course, the arm-rising suggestion, the hand-lock suggestion, and the suggestion to see the book. In response to the suggestion to forget, you are to make yourself forget the other suggestions. Do this by concentrating deeply on something other than the memories thereby distracting yourself from them. By distracting yourself in this manner, you will be unable to remember the suggestions.

The suggestion to forget also requires that you make believe that the suggestions are actually fading from your memory all by themselves and that you are doing nothing to make them go away.

Therefore, you are to make-believe that your forgetting is something that just happens to you; not something that you are causing.

As usual, you are to become deeply involved in this make-believe. Only attend to the make-believe situation, namely, that your memories of the suggestions are just fading away by themselves.

There is another matter: At one point in the suggestion, you will be challenged to remember the suggestions and write them down on a piece of paper. Despite this challenge, you are to continue to distract yourself from the suggestions while making believe you really cannot remember them. The challenge is all part of the make-believe situation. It is meant to further establish the fact that despite your best efforts to remember the suggestions, you simply cannot; they're gone.

To summarize: Your task is to become so deeply involved in the make-believe that you won't notice that it's really you who is preventing the recall of the memories.

Following the challenge to remember the suggestions, there will be a one minute pause in which you will be able to write down any of the suggestions that you remember. This, in turn, will be followed by the cancellation of the forgetting; that is, the

voice will say that you can remember the words again. Once this is done, you will be asked again to write the suggestions down on another piece of paper that will be provided. It will be all right at this point to stop distracting yourself, stop making believe, and actually write down the names of the suggestions on the paper.

Now, observe the subject on the videotape respond to this one. As she is presented with the suggestion, she will again verbalize her thoughts. Notice that her thoughts and imaginings are on things other than the memories of the suggestions. Notice also that she continues to distract herself even when she is provided with the challenge to try to remember the suggestions. The important thing to grasp here is that she directs her attention to other things yet never admits or even thinks that what she is doing is in any way connected with forgetting the suggestions. By doing this, she can do all that this suggestion requires; she can forget the suggestions presented earlier, and she can simultaneously make-believe that she has done nothing to make the suggestion go away. Attend carefully to what she does.

[Play videotape of model]

Amnesia Suggestion

Close your eyes. As you recall, you were given three suggestions. However, a funny thing is beginning to happen. The memory of these suggestions is fading; fading completely. In fact, you are totally unable to remember what these suggestions were. Nevertheless, I want you to try to remember them even though this will be impossible. Open your eyes and write down the suggestions that you can remember on the sheet of paper on the desk. You will be given one minute to do so. Begin. [Wait one minute.] Time is up.

Now the memories are returning. They are becoming more and more clear. In fact, you can remember all the suggestions that were presented. Write down all of the suggestions on the paper provided. Again, you will have one minute. [Wait one minute.] Time is up.

Transfer Instructions for Practice Subjects

In a moment you will be presented with four more suggestions that are different from the ones you've just been presented. In addition, the upcoming suggestions will be presented one after the other with only sufficient time in between for you to make a full response; that is, you will be presented with a suggestion, given ample opportunity to respond to it, and then be presented with the next suggestion right afterwards, and so on.

You will therefore not be given the extensive instructions you were given before. You will not, for instance, be told what an upcoming suggestion is, nor will you be given any instructions on how exactly to respond to such a suggestion. The reason why I am taking these measures is because you already know how to go about responding hypnotically, so going over the instructions again will probably be dull and boring for you. There is another even more important reason, suggestions presented in this manner will require that you apply the skills you've learned to new tasks. As a good hypnotic subject, you must be able to respond hypnotically to any suggestion you are presented even if you have not received it before or have not been given instructions on how to respond to it. With the basic skills you have now learned and with a little effort and creativity on your part, you will no doubt be able to respond hypnotically to any new suggestions that you are presented.

Now close your eyes and take half a minute to rehearse mentally the hypnotic skill and really get yourself psyched-up to respond hypnotically to each of the four new suggestions to be presented. I'll present the suggestions beginning in 30 seconds. [After 30 seconds, the test suggestions are presented.]

Arms Apart

Close your eyes. Place both of your hands straight out in front of you at shoulder height with palms facing one another and with the fingertips of one hand touching the fingertips of the other. Imagine that a force is beginning to make the hands repel one another. The force is getting stronger and stronger. It's getting so strong that it is beginning to push your hands apart. It's getting stronger and stronger and your hands are moving further and further apart. [Wait 20 seconds.]

The force is no longer active. Place your hands back on the table. Keep your eyes closed and continue to relax.

Head Lowering Suggestion

Now imagine that a force is pushing down on the top of your head causing it to feel heavy. It feels like someone has placed the palm of their hand on the top of your head and are pushing downward. Your head is being pushed down with such force that it is beginning to fall forward so that your chin is moving toward your chest. The force continues to push, making your head feel heavier and heavier, making it fall forward more and more. [Wait 20 seconds.] The hand is no longer pushing on your head and you can sit up again and relax. Continue to relax.

Hearing the Voice

You are taking a course in the history of psychology and you are now in the classroom. In a minute the professor will ask in what country Sigmund Freud was born. Of course you know from your studies that it was Moravia. As you can hear, the professor is already asking several other questions about Freud, and he is just getting to the country of birth question, so get ready. In a few seconds, I want you to hear the professor ask Freud's birthplace and raise your hand to answer the question. [Wait 20 seconds.] O.K., he's calling on someone else. You can lower your hand. Perhaps he'll call on you in tomorrow's class. Keep your eyes closed and continue to relax.

Amnesia Suggestion

As you recall, you were just given three suggestions. However a funny thing is beginning to happen; the memory of these suggestions is fading, fading completely. In fact, you are totally unable to remember what these suggestions were. Nevertheless, I want you to try to remember them, even though this will be impossible. Open your eyes and write down the suggestions that you can remember on the sheet of paper on the desk. You will be given one minute. Begin. [Wait one minute.] Time is up.

Now the memories are returning. They are becoming more and more clear. In fact, you can remember all the suggestions that were presented. Write down all of the suggestions on the piece of paper provided. Again, you will have one minute to do so. [Wait one minute.] Time is up.

APPENDIX C

Transcript of Model's Verbalizations During Suggestions

Arm-Rising Suggestion

[Hypnotist] Place your right arm straight out in front of you at shoulder height. [Pause.] Imagine that your right arm is light and hollow like a balloon, and that it is gradually being pumped up with helium. The helium is lighter than air and it is causing your hollow arm to become lighter and lighter and to rise in the air. It is slowly rising into the air. More and more helium is being pumped into your arm, and the arm is getting lighter and lighter and just continues to rise. [Wait 25 seconds.]

[Model] It's going up by itself. It feels hollow. I can see the pump. I can feel the arm being pumped up. It's really light. It's moving up by itself. It's getting even lighter. It's going up by itself. It just keeps getting lighter and is going up by itself. It's just getting lighter and lighter.

[Hypnotist] Relax your arm now and place it on the table.

Hand Lock Suggestion

[Hypnotist] Place your hands on the table, and clasp them

together, interlacing the fingers. [Pause.] Imagine that your hands are two pieces of steel that are welded together so that it is impossible to get them apart. They are two pieces of steel welded together. When I ask you to pull your hands apart, they'll be stuck and won't come apart no matter how hard you try. [Wait 10 seconds.] O.K., try to pull them apart. [Wait 20 seconds.]

[Model] They're really stuck together. This is impossible. They're welded together. They're just two hunks of steel welded together. I can't get them apart.

[Hypnotist] O.K., relax. Your hands are not longer stuck together you can pull them apart. Continue to relax.

Book Hallucination Suggestion

[Hypnotist] Place your hands on your lap and close your eyes. [Pause.] I'm not sure if you have noticed, but there is a book of mine on the desk in front of you. It's an average size book, one like hundreds you've seen. It's right there in front of you on the desk. Open your eyes and look at the book sitting there on the desk. [Wait 20 seconds.]

[Model] There it is. I can see it on the desk. I see the book sitting there. It's kind of vague and fuzzy.....a vague,

coloured outline of the book; but it's there.

[Hypnotist] To avoid the book being in the way, why don't you just slide it off to the side. [Wait 20 seconds.]

[Model] I'll just push it over there and get it out of the way.

[Hypnotist] The image of the book is now fading. It's faded completely and you no longer see the book.

Amnesia Suggestion

[Hypnotist] As you recall, you were just given three suggestions. However, a funny thing is beginning to happen; the memory of these suggestions is fading, fading completely. In fact, you are totally unable to remember what these suggestions were. Nevertheless, I want you to try to remember them even though this will be impossible. Open your eyes and write down the suggestions that you can remember on the sheet of paper on the desk. You will be given one minute. Begin. [Wait one minute.]

[Model] It's funny, I can't seem to remember any of the suggestions. All I can feel is a real heaviness all over my body, but especially in my feet. My feet are tingling; they're just heavy and tingling. It's a funny sensation. It feels kind

of nice. It reminds me of lying on the beach, letting the sun tan my body. Watching the people go by and the children....

[Hypnotist] Time's up. Now the memories are returning. They are becoming more and more clear. In fact, you can remember all the suggestions that were presented. Write down all of the suggestions on the piece of paper provided. Again you will have one minute to do so. [Wait one minute.]

[Model] Now that I think of the suggestions I can remember them quite clearly.

APPENDIX D**Transcript of Interviews Between Model and Hypnotist****Arm-Rising Suggestion**

E: So, how did you find responding in this way?

S: It was really good. With practice. I got better and better at it.

E: I see.

S: It's just like you said; it's like learning any skill like swimming or math. It just takes coaching and practice. And this skill: it's really important that you use your imagination. You have to picture all the make-believe events in your mind.

E: Like what?

S: Well, for instance, I just let myself imagine that my arm was hollow. I could see it that way in my mind; you know, I could see my hollow arm with the air hose attached to it. I even imagined the pump. It was just like the air pumps that they have at gas stations. I could see the pump and the hose coming from it and pumping up my hollow arm.

E: I see.

S: And there's another really important thing. You really have to let yourself get into it. That really made the difference like you said it would. Like, I didn't just sit

back and say: "Hey, I'm just imagining all this." Commenting on it would have just ruined the feeling. I just did it. I just let myself get totally engrossed in imagining my arm as hollow and being pumped up, and when I did, it all felt like it was really happening.

E: So, it felt real.

S: That's right. That, the point of all this, isn't it? You've got to make it feel real.

E: Yes, exactly.

S: There's a real knack to it. I found myself getting better and better at it as I practiced.

E: Very good!

Hand-Lock Suggestion

E: How was this one?

S: Good. I think I'm really getting good at the skill now.

E: Yes, you sure are.

S: I just let myself feel everything that was suggested. It really felt like my hands couldn't come apart.

E: Anything else?

S: I just pictured in my mind that my hands were two heavy, cold blocks of steel that were welded together. I got so into these thoughts that they actually felt that way.

E: What about when you were told to try to take them apart?

- S: I just kept on imagining that they were welded together. That's the point of all this isn't it? I mean, to continue to make-believe they're welded together no matter what?
- E: That's right.
- S: If I'd stopped imagining and admitted to myself that they could come apart, then sure, of course, I could have made them come apart. But that wasn't the point of the suggestion. The point was to get involved in the make-believe no matter what. So I just kept really involved in imagining my hands were welded chunks of steel. And I did this until the suggestion was completely over.
- E: Very good. That's just what I wanted you to do. Anything else?
- S: Uh. No, I can't think of anything.

Book Hallucination Suggestion

- E: How did you find this one?
- S: Well, before I was even asked to open my eyes, I had everything pictured in my mind. Like, I pictured the desk and I pictured the book on it. I pictured all the details of how the book would be positioned on the desk and how the book itself would look. I could see the book near the edge of the desk and on the book I could see the little call-number sticker and the stamps and everything.

E: And when you opened your eyes?

S: You know, it's funny. Opening my eyes didn't make much of a difference.

E: How do you mean?

S: Well, everything I pictured when I had my eyes closed, I let carry over to when I had my eyes open. I didn't let a thing change. I let myself see the book on the exact spot when they were open as I had pictured it when they were closed.

E: I see what you mean. That's quite clever. Anything else?

S: There's another thing. It's really important to concentrate as deeply as possible. Like I know it's important to concentrate on all the suggestions, but it's especially important with this one. You can't let your thoughts wonder for a second. You really have to let yourself see the book there all the time.

E: Uh h-u-u-m.

S: There's a real knack to this. It's a skill just like you said it was but it's a strange one. It's a skill at not noticing that you're really acting.

Amnesia Suggestion

E: How was this one?

S: Pretty good. I just let my attention drift away from the memories of the suggestions.

- E: So it was you who caused your forgetting.
- S: Sure, in a way. You can only remember things by sort of stopping what you're doing and letting yourself think back to what you're supposed to remember.
- E: Ah yes, I see.
- S: I just didn't stop and let myself think back. Instead, I just let my mind become preoccupied with other things.
- E: Like what?
- S: For instance, I noticed that my feet felt heavy and tingling, and so I just concentrated on these sensations in my feet. As long as I did that, and didn't shift my attention back to what I was supposed to remember, then I really couldn't remember.
- E: Yes, I see. What about when you were told to try and remember the suggestions.
- S: Well, it's like with the other suggestion...you know, when I was asked to try to separate my hands. I didn't stop thinking of my hands as stuck and welded together. For the suggestion to forget, I just kept on distracting myself. The point of the suggestion was to keep up the forgetting no matter what, so that's what I did.
- E: Yes, that's right. Anything else?
- S: No....Well except that, like I said before there's a real knack to this. You can really get good at it once you practice. You can really feel yourself getting better at controlling your mind to do all these things.

E: Almost everyone finds that.

S: Like, you can actually turn the make-believe into reality...and get good at it! It's actually kind of fun.

E: You know, almost everyone finds that, too.

APPENDIX E

Passively Oriented Training Procedure

Phase I

Hi, you must be _____. My name is _____ and I'll be working with you today. Is this your first year at Carleton? How are you enjoying it? I was a little nervous about coming to university but now I really like it. I felt very comfortable here. Have you decided what you are going to major in?

[If yes, then] Gee, that sounds exciting, could you tell me a little bit about it?

[After being told or if they say no, then] I wasn't sure at first what I wanted to do. I knew I liked people and thought I would enjoy working with them and that's how I finally decided to major in psychology.

Phase II

Let me tell you about what we are going to do in the session today. You were chosen for the session because when you were tested earlier you obtained a low score on hypnotic susceptibility. In today's session I would like to teach you to

become highly responsive to hypnosis.

When I took psychology a few years ago I was also in a hypnosis experiment and just like you, the first time I was tested I obtained a low hypnotic susceptibility score. Later, I underwent the procedures that you and I will go through today and in that way I learned to become very deeply hypnotized and very responsive to suggestions.

When I think back to my first hypnosis session I realize that I really had a lot of misconceptions about hypnosis and those misconceptions really kept me from being able to relax and kept me from trusting in what was going on.

When I remember back I was really a little scared about the idea of being hypnotized. I was afraid of somehow losing control. I didn't want to give up control and place my faith in the hands of the hypnotist. It took me a little while to actually admit to myself that I was anxious about losing control and instead I told myself things such as, "this is silly", and "I don't really want to do this". Once I realized that I was afraid of losing control, I talked about it with my experimenter and realized that I really didn't have anything to be worried about because you don't lose control in hypnosis and no one can make you do things that you don't feel you want to do.

Maybe you could think back to how you felt during your first hypnosis session and tell me how you felt.

[Listen sympathetically. Whatever they say reflect it back.]

Phase III

Becoming hypnotized isn't so much something you do as something you let happen. In a way becoming hypnotized involves resting your conscious mind and your tendency to analyze things from a critical perspective. When people are even a little anxious they tend to get vigilant. Getting hypnotized involves learning to not to be vigilant or critical or analytical for a little while. It involves just letting yourself go, letting your mind go; just letting your whole mind and body relax. When your mind and body are relaxed your mind can easily and passively absorb the words of the hypnotist. When your mind is relaxed it will automatically transform the words of the hypnotist into vivid images that just seem to come alive and be real. That is what being hypnotized really means, letting your mind just open up to the words of the hypnotist and letting all the images the hypnotist suggests become vivid and real.

What I would like to do next is to work with you to help you learn to become more relaxed and to learn to open your mind and let it become receptive to the images I will suggest.

APPENDIX F

Question I

Please choose the one number that best describes how relaxed your body feels right now.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

extremely
tense

neither particularly
tense nor relaxed

extremely
relaxed

Question II

Please choose the number that best describes how relaxed you mind feels right now.

extremely
tense

neither particularly
tense nor relaxed

extremely
relaxed

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

APPENDIX G

INTERVIEW RATING SCALE

For each item, please circle the one letter that best describes your experience with the person you have just met.

1. felt at ease	A B C D E F G	felt tense, anxious
2. felt that I
made myself
known to the
other person	A B C D E F G	did not feel that I
made myself known to
the other person.
3. bored by the
other person	A B C D E F G	interested by other
person
4. held back
a lot and was
careful of what
I revealed	A B C D E F G	talked freely and
fully
5. liked the
other person	A B C D E F G	disliked the other
person

6.	felt the other	A B C D E F G	felt the other person
	person was		was not very interested
	interested in me		in me
7.	the other	A B C D E F G	felt the other person
	person was good		was not very good at
	at interviewing		interviewing and
	and drawing me out		me out
8.	wouldn't want	A B C D E F G	would want to
	interact with		interact with
	the other person		the other person
	again		again
9.	didn't mind	A B C D E F G	was bothered by the
	the tape		tape recorder
	recorder		
10.	felt the other	A B C D E F G	did not feel the
	other person		other person could
	could describe		describe me effectively
	me effectively		to a third party
	to a third party		

11.	felt the other	A B C D E F G	did not feel the
	person was a		other person was a
	good listener		good listener
12.	felt the other	A B C D E F G	did not feel the other
	person made		person made herself
	herself known		known to me
	to me		
13.	did not feel	A B C D E F G	felt that the other
	the other person		person could be trusted
	could be trusted		
14.	would like to	A B C D E F G	would not like to have
	have the other		the other person as a
	person as a		close friend
	close friend		
15.	felt that the	A B C D E F G	did not feel that the
	other person		other person was
	was judging me		judging me

APPENDIX H

IMPRESSION SCALE

Below are 30 items, each of which contains two adjectives at opposite extremes. In each of these items, you are to indicate your impression of the other participant. For example, on item 1, if the person strikes you as being incompetent, then place a check mark in one of the spaces to the right of centre. The more incompetent you believe her to be, then the farther to the right you would want to check.

The same thing applies if you regard her as competent-- only you then check to the left of centre. If you feel you have absolutely no idea one way or the other concerning her ability, then you would mark the centre of the line. The same rules apply to the other items. Try to be as frank and sensitive as you can be in your ratings and be certain that every item is checked.

1. competent individual : : : : : : : : incompetent individual

2. inactive : : : : : : : : energetic

3. considerate : : : : : : : : inconsiderate

4. stubborn	<u>: : : : : : :</u>	pliable
5. self-respecting	<u>: : : : : : :</u>	self-debasing
6. slow thinking	<u>: : : : : : :</u>	quick witted
7. competitive	<u>: : : : : : .</u>	noncompetitive
8. warm person	<u>: : : : : : :</u>	cold person
9. obstinate	<u>: : : : : : :</u>	flexible
10. vengeful	<u>: : : : : : :</u>	forgiving
11. intelligent	<u>: : : : : : :</u>	unintelligent
12. easy-going	<u>: : : : : : :</u>	hard-driving
13. not very likeable	<u>: : : : : : :</u>	likeable
14. firm	<u>: : : : : : :</u>	wishy-washy
15. irritating	<u>: : : : : : :</u>	pleasant
16. well-organized	<u>: : : : : : :</u>	disorganized

17. does her best	<u>: : : : : : :</u>	does not do her best
18. hostile	<u>: : : : : : :</u>	friendly
19. easy to influence	<u>: : : : : : :</u>	difficult to influence
20. attractive	<u>: : : : : : :</u>	unattractive
21. undependable	<u>: : : : : : :</u>	dependable
22. happy	<u>: : : : : : :</u>	sad
23. active	<u>: : : : : : :</u>	passive
24. weak	<u>: : : : : : :</u>	strong
25. bad	<u>: : : : : : :</u>	good
26. slow	<u>: : : : : : :</u>	fast
27. deep	<u>: : : : : : :</u>	shallow
28. worthless	<u>: : : : : : :</u>	valuable
29. sharp	<u>: : : : : : :</u>	dull

30. large

: : : : : : :

small

I am not confident
about these ratings

: : : : : : :

I am very confident
about these ratings

APPENDIX I**Debriefing Procedure****Low Rapport Group for Experiments II and III**

As you will recall your first session in this experiment was unpleasant for you. The trainer was rude and showed little interest in running your session. The low rapport she developed with you was part of the procedure in the experiment. This low rapport condition was necessary in order for us to have a better understanding of the effect of high and low subject/trainer rapport on how well you learned the information taught to you during the modification session and subsequently how well you applied what you had learned on the two post-tests. We hope the experience was not too disturbing for you. Thank you for your participation.

Low Rapport Group for Experiment III with Intervention

Same as above plus they are told:

The intervention before the second post-test was a deliberate attempt to ameliorate your negative feelings toward the trainer. Because you had scored low on the first test it was important to find out whether you had learned the information during the

training session or if you were reluctant to apply what you had learned because of low rapport which had been developed between you and the trainer. If the latter circumstances were true, then having you aware that it was a bad day for the trainer and that she felt uncomfortable about your session may have encouraged you to try harder on the second post-test.

Table 1.

Pre-test and Post-test Means on each CURSS Dimension for CSTP, Passive Training and Control Subjects in Experiment I.

Hypnotizability		Pre-test		Post-test	
Dimension		M	SD	M	SD
<hr/>					
CURSS:Q					
CSTP		1.50	.71	5.40	1.26
Passive Training		1.30	.67	.90	1.45
Control		1.00	.94	1.30	1.25
CURSS:S					
CSTP		5.00	2.40	11.40	4.79
Passive Training		3.30	1.70	2.60	2.50
Control		3.10	2.07	3.20	3.19
CURSS:OI					
CSTP		.50	.97	3.50	2.22
Passive Training		.40	.52	.20	.63
Control		.20	.42	.80	1.32

Table 2.

Post-test Means on each SHSS:C Dimension for CSTP, Passive Training, and Control Subjects in Experiment I.

	SHSS:C/ <u>Q</u>		SHSS:C/ <u>S</u>		SHSS:C/ <u>OI</u>	
	M	SD	M	SD	M	SD
CSTP	7.00	1.82	15.90	5.60	3.80	2.48
Passive						
Training	1.90	1.52	3.50	2.83	.30	.48
Control	2.30	2.67	5.90	4.60	.80	.92

Table 3.

Pre-test and Post-test Means on each CURSS Dimension for High and Low Rapport CSTEP, and Control Subjects in Experiment II.

Hypnotizability				
Dimension				
	Pre-test		Post-test	
	M	SD	M	SD

CURSS:Q				
High Rapport CSTEP	.30	.48	5.70	1.42
Low Rapport CSTEP	.20	.42	.80	1.03
Control	.50	.53	.50	.85
CURSS:S				
High Rapport CSTEP	4.00	2.98	13.40	3.78
Low Rapport CSTEP	3.30	3.30	2.20	2.25
Control	4.10	2.18	2.20	2.29
CURSS:OI				
High Rapport CSTEP	.20	.42	3.30	2.36
Low Rapport CSTEP	.10	.32	.00	.00
Control	.40	.52	.20	.63

Table 4.

Post-test Means on each SHSS:C Dimension for High and Low Rapport CSTP Subjects and Control Subjects in Experiment II.

	SHSS:C/ <u>O</u>		SHSS:C/ <u>S</u>		SHSS:C/ <u>OI</u>	
	M	SD	M	SD	M	SD
High Rapport CSTP	8.40	1.78	17.90	6.04	4.70	2.45
Low Rapport CSTP	2.30	2.75	5.60	5.69	.50	.71
Control	2.10	1.45	5.00	2.94	.60	1.07

Table 5.

Pre-test and Post-test Means on each CURSS Dimension for CSTP, Low Rapport CSTP, Low Rapport CSTP with Intervention, and Control Subjects in Experiment III.

Hypnotizability		Pre-test		Post-test	
Dimension		M	SD	M	SD
<hr/>					
CURSS: <u>O</u>					
CSTP		.50	.53	5.0	1.33
Low Rapport		.40	.52	.40	.84
Intervention		.60	.52	1.30	1.56
Control		.60	.52	.60	.70
CURSS: <u>S</u>					
CSTP		4.70	3.68	13.30	4.16
Low Rapport		2.70	2.40	3.20	2.78
Intervention		4.20	2.39	5.10	2.47
Control		2.70	2.36	2.30	2.63
CURSS: <u>OI</u>					
CSTP		.20	.42	2.70	2.05
Low Rapport		.20	.42	.20	.42
Intervention		.10	.32	.70	.95
Control		.00	.00	.20	.42

Table 6.

Post-test Means on each SHSS:C Dimension for CSTP, Low Rapport,
Low Rapport with Intervention, and Control Subjects in Experiment
III.

	SHSS:C/ <u>O</u>		SHSS:C/ <u>S</u>		SHSS:C/ <u>OI</u>	
	M	SD	M	SD	M	SD
CSTP	7.10	2.88	19.10	7.62	5.70	3.46
Low Rapp	1.30	1.90	5.10	4.61	1.30	2.11
Intervent	2.80	1.81	5.60	2.95	.90	1.10
Control	1.30	1.57	2.80	2.94	.40	.84

END

1 7/0 2/9 1

FIN