1

PM-1 3½" x 4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographique

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Quality of reproduction

Qualité de reproduction

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et les amendements subséquents.

**THE MODIFICATION OF HYPNOTIZABILITY UTILIZING THE CARLETON
SKILLS TRAINING PACKAGE AND COMPLIANT RESPONDING**

by

Suzanne M. Wallace-Capretta

**A thesis submitted to the faculty of
Graduate Studies and Research in partial fulfillment of
the requirements for the degree of Master of Arts**

Department of Psychology

Carleton University

Ottawa, Ontario

April, 1993

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Author's Acknowledgement

À l'attention de l'auteur

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-84084-6

Canada

Name James W. M. Walker - Canada

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

151011061

SUBJECT TERM

C525

U·M·I

SUBJECT CODE

Subject Categories

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS

Architecture 0729
Art History 0377
Cinema 0900
Dance 0378
Fine Arts 0357
Information Science 0723
Journalism 0391
Library Science 0399
Mass Communications 0708
Music 0413
Speech Communication 0459
Theater 0465

EDUCATION

General 0515
Administration 0514
Adult and Continuing 0516
Agricultural 0517
Art 0273
Bilingual and Multicultural 0282
Business 0688
Community College 0275
Curriculum and Instruction 0727
Early Childhood 0518
Elementary 0524
Finance 0277
Guidance and Counseling 0519
Health 0680
Higher 0745
History of 0520
Home Economics 0278
Industrial 0521
Language and Literature 0279
Mathematics 0280
Music 0522
Philosophy of 0998
Physical 0523

Psychology 0525
Reading 0535
Religious 0527
Sciences 0714
Secondary 0533
Social Sciences 0534
Sociology of 0340
Special 0529
Teacher Training 0530
Technology 0710
Tests and Measurements 0288
Vocational 0747

LANGUAGE, LITERATURE AND LINGUISTICS

Language 0679
General 0289
Ancient 0290
Linguistics 0291
Modern 0291
Literature 0401
General 0294
Classical 0295
Comparative 0297
Medieval 0298
Modern 0316
African 0591
American 0305
Asian 0352
Canadian (English) 0355
Canadian (French) 0593
English 0311
Germanic 0312
Latin American 0315
Middle Eastern 0313
Romance 0314
Slavic and East European 0314

PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy 0422
Religion 0318
General 0321
Biblical Studies 0319
Clergy 0320
History of 0322
Philosophy of 0469
Theology 0323

SOCIAL SCIENCES

American Studies 0323
Anthropology 0324
Archaeology 0326
Cultural 0327
Physical 0310
Business Administration 0272
General 0770
Accounting 0454
Banking 0338
Management 0385
Marketing 0501
Canadian Studies 0503
Economics 0505
General 0508
Agricultural 0509
Commerce Business 0510
Finance 0511
History 0358
Labor 0366
Theory 0351
Folklore 0578
Geography 0578
Gerontology 0578
History 0578
General 0578

Ancient 0579
Medieval 0581
Modern 0582
Black 0328
African 0331
Asia, Australia and Oceania 0332
Canadian 0334
European 0335
Latin American 0336
Middle Eastern 0337
United States 0337
History of Science 0585
Law 0398
Political Science 0615
General 0616
International Law and 0617
Relations 0814
Public Administration 0452
Recreation 0626
Social Work 0627
Sociology 0938
General 0631
Criminology and Penology 0628
Demography 0629
Ethnic and Racial Studies 0630
Individual and Family 0700
Studies 0344
Industrial and Labor 0709
Relations 0999
Public and Social Welfare 0453
Social Structure and 0453
Development 0453
Theory and Methods 0453
Transportation 0453
Urban and Regional Planning 0453
Women's Studies 0453

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES

Agriculture 0473
General 0285
Agronomy 0475
Animal Culture and 0476
Nutrition 0359
Animal Pathology 0478
Food Science and 0479
Technology 0480
Forestry and Wildlife 0817
Plant Culture 0777
Plant Pathology 0746
Plant Physiology 0306
Range Management 0287
Wood Technology 0308
Biology 0309
General 0379
Anatomy 0329
Biostatistics 0353
Botany 0369
Cell 0193
Ecology 0410
Entomology 0307
Genetics 0317
Limnology 0416
Microbiology 0433
Molecular 0821
Neuroscience 0778
Oceanography 0472
Physiology 0786
Radiation 0760
Veterinary Science 0425
Zoology 0996

Botany

Cell

Ecology

Entomology

Genetics

Limnology

Microbiology

Molecular

Neuroscience

Oceanography

Physiology

Radiation

Veterinary Science

Zoology

Biophysics

General

Medical

Earth Sciences

Biogeochemistry

Geochemistry

Geodesy

Geology

Geophysics

Hydrology

Mineralogy

Paleobotany

Paleoecology

Paleontology

Palynology

Physical Geography

Physical Oceanography

Health and Environmental Sciences

Environmental Sciences

Health Sciences

General

Audiology

Chemotherapy

Dentistry

Education

Hospital Management

Human Development

Immunology

Medicine and Surgery

Mental Health

Nursing

Nutrition

Obstetrics and Gynecology

Occupational Health and

Therapy

Ophthalmology

Pathology

Pharmacology

Pharmacy

Physical Therapy

Public Health

Radiology

Recreation

Speech Pathology

Toxicology

Home Economics

Physical Sciences

Pure Sciences

Chemistry

General

Agricultural

Analytical

Biochemistry

Inorganic

Nuclear

Organic

Pharmaceutical

Physical

Polymer

Radiation

Mathematics

Physics

General

Acoustics

Astronomy and

Astrophysics

Atmospheric Science

Atomic

Electronics and Electricity

Elementary Particles and

High Energy

Fluid and Plasma

Molecular

Nuclear

Optics

Radiation

Solid State

Statistics

Applied Sciences

Applied Mechanics

Computer Science

Engineering

General

Aerospace

Agricultural

Automotive

Biomedical

Chemical

Civil

Electronics and Electrical

Heat and Thermodynamics

Hydraulic

Industrial

Marine

Materials Science

Mechanical

Metallurgy

Mining

Nuclear

Packaging

Petroleum

Sanitary and Municipal

System Science

Geotechnical

Operations Research

Plastics Technology

Textile Technology

Psychology

General

Behavioral

Clinical

Developmental

Experimental

Industrial

Personality

Physiological

Psychobiology

Psychometrics

Social

The undersigned recommend to the Faculty of Graduate Studies
and Research acceptance of the thesis

**"THE MODIFICATION OF HYPNOTIZABILITY UTILIZING THE
CARLETON SKILLS TRAINING PACKAGE AND COMPLIANT
RESPONDING"**

submitted by Suzanne M. Wallace-Capretta, B.A.
in partial fulfillment of the requirements for
the degree of Master of Arts

Thesis Supervisor

Chair, Department of Psychology

Carleton University

April, 1993.

Abstract

Fifty Carleton University undergraduates who previously attained low hypnotizability scores on the objective dimension of the Carleton University Responsiveness to Suggestion Scale (CURSS) were randomly assigned to five groups. Subjects in one group were administered the complete Carleton Skills Training Package (CSTP), while those in another were instructed to fake their hypnotic responding prior to receiving the complete CSTP. A partial CSTP was also administered to both nonsimulators and simulators. The partial CSTP omitted the entire interpretational component of the CSTP. A control group did not receive CSTP training or simulation instructions. All subjects were post-tested twice, first on the CURSS and then on the Stanford Hypnotic Susceptibility Scale, Form C (SHSS: C), modified for group administration. Simulators, complete and partial, attained significantly higher scores on all dimensions of both post-tests than any other group. Nonsimulating subjects administered the complete CSTP produced significant hypnotizability gains from baseline to post-tests. However, the partial nonsimulating subjects attained only small and usually nonsignificant gains. No treatment controls did not increase from pre- to post-tests. Findings support the social psychological perspective that hypnosis is a modifiable skill.

Acknowledgments

I would like to extend my appreciation to my advisor Dr. N. P. Spanos for always being there to answer my questions even when on sabbatical. I would also to thank my co-experimenters, C. A. Burgess, S. C. DuBreuil, S. J. Liddy, and P. A. Cross., for their co-operation and patience as we maneuvered through a scheduling nightmare. In addition, I would like to thank the Research Assistant, M. F. Burgess for patching the holes in our schedule. Thanks to my family for always standing behind me and substituting as a crutch when need be. Lastly, I would like to extend a special thanks to Robert without whom I could not have made it this far. Even when I gave up you never did. Thank-you.

Table of Contents

	Page
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	vi
List of Figures	vii
 Introduction	 1
The Carleton Skills Training Package	3
Stability and Generalizability	4
Plateau Hypnotizability	6
Compliance in Modification Training	7
Assessing Compliance in the Carleton Skills Training Package	14
 Method	 18
Initial Assessment Procedure	18
Subjects	18
Experimental Procedure	18
Simulating Instructions	19
Modification Procedure	19
Follow-Up Assessment Procedure	21
 Results	 23
Pre-/Post-CURSS Increases	23
SHSS: C Post-Test	31
 Discussion	 38
 References	 44
 Appendix A: Complete Modification Instructions	 50
Appendix B: Complete Audio Training Information	63
Appendix C: Transcript of Model's Verbalizations during Suggestions: Complete & Partial	78
Appendix D: Transcript of Interviews between Model and Hypnotist: Complete	82
Appendix E: Partial Modification Instructions	87
Appendix F: Partial Audio Training Information	98
Appendix G: Simulator Instructions	112
Appendix H: Real Instructions	115

List of Tables

Table	Description	Page
1	Pre-/Post-Test Mean CURSS: <i>O</i> , <i>S</i> , and <i>OI</i> Scores	24
2	ANOVA Summary Table for CURSS: <i>O</i> Scores at Baseline and Post-Test	25
3	ANOVA Summary Table for CURSS: <i>S</i> Scores at Baseline and Post-Test	28
4	ANOVA Summary Table for CURSS: <i>OI</i> Scores at Baseline and Post-Test	30
5	SHSS: <i>C</i> Post-Test Mean Scores on all Dimensions	33
6	ANOVA Summary Table for SHSS: <i>C</i> Scores on all Dimensions	34

List of Figures

Figure	Description	Page
1	Mean CURSS: <i>O</i> increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.	26
2	Mean CURSS: <i>S</i> increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.	29
3	Mean CURSS: <i>OI</i> increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.	32
4	Mean SHSS: C: <i>O</i> scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.	35
5	Mean SHSS: C: <i>S</i> scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.	36
6	Mean SHSS: C: <i>OI</i> scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.	37

The Modification of Hypnotizability Utilizing the Carleton Skills Training Package and Compliant Responding

From its beginnings, the topic of hypnosis has been controversial. One important issue has been whether hypnotizability is a stable trait or a modifiable skill. Frequently, investigators who conceptualize responding as involving an altered state of consciousness also argue that hypnotizability is a trait which is highly resistant to modification (Hilgard, 1965; Perry, 1977). In the early 1960's, researchers began utilizing newly developed scales to assess hypnotizability. Several studies (reviewed by Hilgard 1965) found that these scales exhibited high test-retest reliability, and these findings were used to support the stable trait hypothesis. In other words, since the scores an individual attained on their first hypnotic susceptibility test did not differ greatly from their scores on subsequent tests it was assumed that strong evidence of a stable hypnotic trait had been uncovered, (Hilgard, 1965; Perry, 1977). In addition, several studies that attempted to produce enhancements in hypnotizability through individualized hypnotic induction procedures, electroencephalographic (EEG) feedback training, personal growth training, and meditation produced only small and often nonsignificant hypnotizability gains (see review by Perry, 1977). Trait theorists frequently argue that hypnotic responding involves entrance into a trance-like state. During which hypnotic behavior is governed by unconscious cognitive systems or special processes. In addition, differences in hypnotizability among

individuals reflect differences in their ability to experience dissociation (Hilgard, 1977).

In contrast to this state perspective is the social psychological perspective. Those who support the social psychological perspective assert that hypnotic responding involves a skill which can be learned through the proper training techniques, motivation, and practice. As mentioned above, early attempts at modifying hypnotizability produced small and generally nonsignificant gains. In his review of the modification research, Perry (1977) pointed out a number of methodological problems inherent in these early studies. For example, modification studies which reported dramatic gains were often based on small sample sizes, occurred in clinical settings and did not include control groups against which comparisons could be made. Criticisms such as these led Perry to conclude that there was no evidence that hypnotizability is modifiable. However, it is important to note that Perry's conclusion was reached only after he had averaged across all available modification studies. In doing so, Perry discounted any study that produced significant hypnotizability enhancements as chance findings since this did "not mesh with the overall pattern of results" (Perry, 1977). In fact, a number of the studies dismissed reported significant and substantial gains in hypnotizability by using operant and social learning principles (e.g., Diamond, 1972, 1977; Diamond, Steadman, Harada, & Rosenthal, 1975; Sach, 1971). Taken together, the findings of these studies support the social psychological hypothesis that hypnotizability is a modifiable skill, rather than a stable trait.

In addition to the methodological flaws described by Perry (1977) three key issues surfaced as a result of attempts to modify hypnotizability: a) the lack of stability data and generalizability of results b) the issue of plateau hypnotizability and c) the issue of compliance to experimental demands.

The Carleton Skills Training Package

In an effort to systematically address these issues, a multi component modification training program based on social learning principles was devised (Gorassini & Spanos, 1986). The Carleton Skills Training Package (CSTP) contains three components: a) information which attempts to minimize fear by dispelling myths and misconceptions associated with hypnosis, b) an emphasis on the importance of becoming absorbed in goal directed imagery related to the suggestions, and c) information directed at formulating the proper interpretations of suggestions. Subjects are informed that hypnotic responses do not occur automatically, but instead are goal directed. However, they are also informed that they can learn to experience their responses as involuntary by carrying out appropriate imaginings. These three components are similar to the ones identified by Diamond (1977) as being the key to successful modification.

Since its development, the CSTP has been employed in numerous studies and has consistently produced substantial and significant gains in hypnotizability (Gorassini & Spanos, 1986; Spanos, Cross, Menary, Brett, & de Groh, 1987; Spanos, de Groh, & de Groot, 1987; Spanos, Flynn, & Niles, 1989-90; Spanos, Lush, & Gwynn, 1989; Spanos, Robertson, Menary, & Brett, 1986; Spanos, Robertson,

Menary, Brett, & Smith, 1987). These studies will be reviewed as they bare on controversial issues in modification literature.

Stability and Generalizability

In order to support the hypothesis that hypnotizability is a modifiable skill, it is necessary to demonstrate that modification gains are stable over time (Diamond, 1977). Many studies administering post-tests a few weeks after skill training have found that hypnotizability gains were maintained across these time periods (Spanos, Cross et al., 1987; Spanos, de Groh et al., 1987; Spanos, Lush et al., 1989-90; Spanos, Robertson et al., 1986). For example, Spanos, Robertson et al. (1986) administered a hypnotizability post-test a few days to one week after skill training. Subjects were then post-tested on a different hypnotizability scale one to three weeks later. The results indicated that the CSTP subjects demonstrated significantly larger gains on the behavioral and subjective dimensions of hypnotizability than did the control subjects on both post-tests. The correlations between the two post-tests were higher then those found between the pre-test and either post-test. In a study providing the strongest support for the long-term stability of skill training gains subjects were administered post-tests from nine to thirty months after skills training (Spanos, Cross, Menary, & Smith, 1988). Results of this study indicated that hypnotizability gains produced by skill training were maintained despite the longest temporal interval.

The fact that stable hypnotizability scores have been reported across different types of post-tests brings to the forefront the related issue of generalizability. If hypnotizability enhancements are to be

considered valid then they should generalize to novel and difficult hypnotic suggestions. Furthermore, the hypnotic responding of skill trained subjects should also be similar to that of natural high hypnotizable subjects. Spanos, de Groh et al. (1987) investigated the issue of generalizability by comparing a group of skill trained (or "created") high hypnotizables to a group of natural high hypnotizables. Both groups were administered two different hypnotizability post-tests. The first post-test was administered in a group setting and the second was an individually administered amnesia suggestion of a previously learned word list. The skill trained subjects attained substantial increases even when the post-test suggestion was unlike the amnesia suggestion encountered in training. The skill trained and the natural highs failed to differ significantly on dimensions of the CURSS post-test. In short, the amnesia strategies generalized from time to time and situation to situation.

A second study examining the issue of generalizability was conducted by Spanos, Lush et al. (1989). Created highs, natural highs, low controls, and simulators (subjects told to "fake" their responding) received five difficult and novel suggestions that are thought to play a central role in hypnosis (e.g., analgesia, age regression, visual hallucination, selective amnesia, and post hypnotic response). Results indicated that created and natural highs did not differ significantly in their objective and subjective responding, nor did they differ on any dimension of the two hypnotizability post-tests. For example, both created and natural highs reported discrepancies between their overt responses and the corresponding

involuntary scores. Such discrepancies are typical of natural high hypnotizables. In contrast, simulating subjects in this study did not show discrepancies between their behavioral and involuntaryness indices.

Plateau Hypnotizability

Several trait theorists (e.g., Shor, Orne, & O'Connell, 1966) have hypothesized that hypnotizability reflects differences in hypnotic or "trance" depth. According to these theorists plateau hypnotizability refers to an individual's optimal level of hypnotizability, and this level is fixed for each individual. However, attitudes and expectations toward hypnosis can interfere with the attainment of an individual's optimal level. Several researchers (e.g., Perry, 1977) have hypothesized that only after several exposures to hypnosis would some subjects' fears and inhibitions be eliminated, thereby allowing them to attain their plateau level of hypnotizability.

Plateau hypnotizability has been used by trait theorists as a means of explaining why skill training gains in hypnotic responding have sometimes been found. Perry (1977) proposed that studies employing modification procedures have used baseline levels that were artificially low, since the plateau level had not been reached prior to the modification attempts. Since only one pre-test, usually the subjects only exposure to hypnosis, has typically been administered in order to provide researchers with a baseline for comparison, then the post-test might produce inflated results. Therefore, any procedure that attempted to increase hypnotizability levels might erroneously be viewed as successful.

Some researchers have argued that establishing plateau levels as baselines may help to discover the essential components of hypnosis (Perry, 1977). Along with this assumption Diamond (1977) also argued that establishing such baselines would improve statistics and help solve the controversy of whether plateau hypnotizability is a stable trait or a modifiable skill. If significant gains in hypnotizability could be attained even after several baseline tests had been administered, support would be provided for the social psychological view that hypnosis is a modifiable skill.

This issue of plateau hypnotizability was recently investigated by Spanos, Robertson et al. (1987). In this study all four treatment groups were comprised of low hypnotizables. The subjects were divided into those who received one baseline measure and those who received two baseline measures of hypnotizability. Subsequently, half of the subjects in each group were administered the CSTP and the other half did not receive any intervention. Regardless of the number of baseline assessments, only skill trained subjects attained significant increments in their hypnotizability levels on two different post-tests. The findings of this study illustrate that modification gains cannot be attributed to artificially low baseline scores.

Compliance in Modification Training

In response to the findings of Spanos and his associates two alternative hypotheses have been postulated concerning the CSTP. The social psychological hypothesis attributes skill training enhancements to the fact that subjects have learned the skills and proper interpretations required to develop the subjective

experiences that accompany behavioral responding (Diamond, 1977; Spanos, 1986). Alternatively, the trait perspective posits a compliance account of skill training induced gains in responding. The compliance hypothesis accounts for enhancements not as an outcome of modification, but as the subject lying in order to meet strong experimental demands (Perry, 1977).

While researchers in several different laboratories (e.g., Gfeller, Lynn, & Pribble, 1987) have also obtained substantial hypnotizability gains using the CSTP, Bates, Miller, Cross, & Brigham (1988) found that the hypnotizability gains produced in their study were small and were not maintained over long temporal intervals. These small gains were attributed by Bates et al. to the fact that they administered the CSTP under conditions of low rapport between the subject and trainer. Bates et al. concluded that when the CSTP is administered under conditions of high rapport it coerces subjects into complying with experimental demands so as not to disappoint their trainer (Bates et al., 1988; Bates, 1990).

Spanos and Flynn (1989) conducted an experiment that addressed the compliance hypothesis. This experiment employed low controls, a group of skill trained subjects, and untrained high hypnotizables whose scores were matched against the post-test scores of the trained subjects. In addition, Spanos and Flynn included two groups of low hypnotizables who were explicitly instructed to fake hypnosis (i.e., simulators), one of these groups was administered their faking instructions without preliminaries before their first post-test. The second group of fakers was administered the CSTP and instructed to fake their way through the training

session, as well as, through later post-tests. If the compliance hypothesis is accurate, then we would expect to find that the CSTP simulators would not differ significantly from the standard CSTP group or the natural high subjects. The results indicated that the two simulating groups exhibited similar hypnotizability scores and once again the trained and natural highs did not differ significantly. Furthermore, the responses of the simulators differed significantly from the responses of the created and natural highs. In short, these findings support the social psychological hypothesis that the skills necessary for successful hypnotic responding can be learned. Although, these findings do not deny the occurrence of compliance, they indicate that compliance cannot account completely for the enhancements of hypnotizability produced by skills training.

Spanos, Flynn et al. (1990) further addressed the compliance hypothesis by examining the importance of rapport in skills training. In the first experiment (Spanos, Flynn, & Niles, 1990; Experiment 1) the complete CSTP or a passive training treatment was administered to low hypnotizables. Both treatments were administered to subjects under the usual conditions of high rapport, and contained repeated demands for enhanced hypnotizability. It was postulated that if rapport could successfully account for gains in hypnotizability the two groups would attain equivalent scores on post-test hypnotizability indices. Results of rapport questionnaires demonstrated that high and equivalent levels of rapport had been developed in both treatments. However, only the subjects, who had received the complete CSTP exhibited substantial gains in their hypnotizability levels.

In experiment 2 the CSTP was administered to two groups of low hypnotizables (Spanos, Flynn et al., 1990: Experiment 2). One group was assigned to a low rapport condition while the other received the CSTP under high rapport conditions. Only the subjects in the high rapport condition increased their hypnotizability levels significantly. Taken together, results of these two experiments demonstrate that good rapport between the subject and the trainer is necessary if the modification procedure is to be successful, but significant gains in hypnotizability cannot be attributed to rapport alone. These findings contradict the hypothesis that skill trained subjects are merely complying to the experimental demands accompanied by high rapport in an effort to please the experimenter.

To further investigate the compliance hypothesis Burgess, DuBreuil, Jones, & Spanos (1990) conducted a study examining reporting bias in skill trained and natural high hypnotizable subjects. In the first session of this experiment, a group of low hypnotizable subjects underwent skills training with the CSTP, followed by a hypnotizability post-test. A second group of low hypnotizable control subjects received a hypnotizability post-test without having undergone skills training. As in previous studies, skilltrained subjects attained substantial gains in hypnotizability. Control subjects, on the other hand, did not differ significantly from their pre- to post-hypnotizability tests.

The second session of the study involved a procedure designed to assess compliant responding independently of experiential change. Briefly, three 60 second trials of a loud tone were presented to skill trained, natural high hypnotizables and low controls who were asked

to rate the loudness of the tone ten seconds after its termination. Trial 1 was a baseline, and trial 2 was preceded by a hypnotic suggestion for deafness. Following trial 2 loudness reports, the hypnosis and deafness suggestions were cancelled, and subjects were administered trial 3, which, they were told, would be "just like trial 1". After termination of the trial 3 tone, but before making their loudness reports half of the subjects received an instruction designed to induce a reporting bias (e.g., "you probably drifted into hypnosis on the last trial, and heard very little of the tone"). It's important to note that, up to the end of the trial 3 tone, subjects in both conditions received exactly the same auditory stimulus and experiential procedures. Therefore, any reduction in the trial 3 loudness reports of the compliance inducement subjects would not reflect experiential change. These reductions would, however, reflect an instruction induced reporting bias. Recall that critics of the CSTP have argued that hypnotizability gains and reports of subjective change are produced only through the compliant responding of skill trained subjects. These criticisms imply that skill trained subjects bias their reports because of experimental demands, while natural high hypnotizables remain immune to these same demands and report accurately on their subjective experiences. Support for the compliance hypothesis would be had if, in the auditory session of Burgess et al. (1990), only skill trained subjects biased their loudness reports in response to the trial 3 compliance instruction. However, the findings of this study indicated something quite different for subjects who had received the compliance instruction. While the skill trained subjects did indeed show some trial 3 loudness

reductions, these did not attain significance. On the other hand, natural high hypnotizables biased their trial 3 loudness reports to a significant degree. From these findings the authors concluded that skill trained subjects do not exhibit any more compliant behavior than high hypnotizables. Once again the results of this study, along with others previously mentioned, contradict the compliance hypothesis. In doing so, they contribute evidence in support of the social psychological perspective of hypnotic responding.

Despite all of these data supporting the social psychological perspective, Bates (1990) continues to argue that skill trained subjects persistently exhibit compliant behavior. Unfortunately, this hypothesis does not acknowledge studies which have consistently found simulators perform markedly different on both behavioral and subjective dimensions of post modification tests (Spanos & Flynn, 1989; Spanos, Lush et al., 1989; Spanos, Robertson et al., 1986).

Most of the research investigating the role of compliant behavior in the modification of hypnotizability literature has relied on self reports. Consequently, a lack of honesty on the part of hypnotic subjects, can call into question the validity of the obtained results. To determine whether true experiential gains or compliance to experimental demands can account for the results of modification procedures Kirsch, Silva, Carone, Johnston, & Simon (1989) employed a surreptitious observation design. Kirsch and his associates administered a hypnotic induction twice, once alone and once with an observer present, to a group of high hypnotizables and a group of simulators. During the first session the subjects were unaware that they were being observed via hidden video camera. The

investigators discovered both groups were highly responsive when an observer was present but when the subjects believed they were alone only the high hypnotizables continued to display high levels of responsiveness. The finding that naturally high hypnotizable subjects responded to the hypnotic suggestions in both sessions demonstrates that these subjects were not simply responding in order to please the experimenter. Kirsch's findings support the hypothesis that high hypnotizable subjects are not simply "faking good" to please the experimenter.

One of the most recent studies to address the issue of compliance and the modification of hypnotizability was conducted by Spanos, Burgess, Roncon, Wallace-Capretta, & Cross (in press). This study was conducted in an effort to replicate and extend the Kirsch et al. (1989) study, and included a group of skill trained subjects and low controls, as well as, the simulators and natural high hypnotizables. The hypnotizability levels of all subjects were tested during two individual sessions, alone and with an observer present. A video camera surreptitiously recorded subjects' responses during both sessions. The experimenters found significant differences between the hypnotic responding of the simulators versus the created and natural high hypnotizables in the subject alone condition. If the compliance hypothesis were true we would expect no significant differences between the simulators and the CSTP subjects in the subject alone condition. Instead, CSTP subjects, like natural highs continued to respond when they believed they were not being observed, whereas simulators stopped responding at this time.

Spanos, Roberston et al. (1986) conducted a study in order to identify the critical components of the CSTP. They hypothesized that the CSTP would be ineffective if the interpretational information was excluded from the modification procedure. This information explains that hypnosis involves active participation on the part of the subject, and requires generating, as well as, becoming involved in appropriate imagery in order to produce feelings of involuntariness. One group of low hypnotizables was administered the complete CSTP while a second group was administered the CSTP with all interpretational information omitted. Only those subjects who received the complete skills training package attained large hypnotizability gains. These findings suggest that the interpretational component of the CSTP is critical to producing enhancements in hypnotizability. Since only the subjects who received the complete modification procedure substantially increased their hypnotizability scores the findings support the social psychological account of hypnotic responding.

Assessing Compliance in the Carleton Skills Training Package

The present study was designed to further investigate the role of compliance in the modification of hypnotizability. Similar to Spanos, Roberston et al. (1986) we expected to demonstrate that the effectiveness of the CSTP hinges upon the critical interpretational component. That is, without the interpretational component which indicates that hypnotic responding consists of goal directed behavior subjects would not exhibit substantial or significant gains. For this purpose, low hypnotizable subjects were administered either the complete or partial CSTP. In addition, half of the subjects in each

treatment were instructed to fake their hypnotic responding (simulators). On the contrary, we predicted that simulators, complete and partial, would demonstrate a substantial increase from pre- to post-test and that this increase would be significantly higher than that attained by any other group, low controls or skill trained. The CSTP was administered to all subjects under conditions of high subject/trainer rapport. As well, all subjects, except the low controls, experienced strong and repeated experimental demands to increase hypnotizability. Despite this fact, we predicted only those skill trained subjects administered the complete CSTP would attain substantial increments on their hypnotizability post-tests. The low hypnotizables who received the partial CSTP were not expected to make large gains in their hypnotizability scores due to the exclusion of the interpretational component from their treatment.

According to the compliance hypothesis any differences in hypnotizability produced by the complete and partial versions of the CSTP reflect differences in the strength of the demands for compliance associated with each version (Bates, 1990). This hypothesis suggests that subjects in the Spanos, Robertson et al. (1986) study who received the complete CSTP attained higher hypnotizability than those given the partial CSTP because those given the complete treatment were exposed to stronger compliance pressures than those given the partial treatment. This hypothesis predicts that simulators administered the partial CSTP will show smaller hypnotizability gain scores than simulators administered the full CSTP, because the simulators given the partial treatment are exposed to the weaker compliance demands.

Alternatively, we hypothesized that both the complete and partial CSTP contain strong demands for enhanced hypnotizability. According to this hypothesis nonsimulators given the partial CSTP failed to attain high hypnotizability gains not because they were exposed to only weak compliance demands, but instead, because they ignored strong compliance demands. The structure of scientific experiments (including those on hypnotizability modification) contain implicit demands for honest responding. Subjects given the partial CSTP had not learned how to generate the combination of subjective and behavioral responses called for by suggestions, and therefore, could not respond to such suggestions without violating demands for honesty. Consequently, these subjects tended to ignore compliance demands and exhibited low hypnotizability despite those demands. Subjects administered the full CSTP learned to generate the subjective and behavioral responses called for by suggestions. Therefore, these subjects responded to demands for increased hypnotizability, because doing so did not violate implicit demands for honest responding.

Simulators are explicitly instructed to ignore honesty demands and to enact the behaviors called for by suggestions in the absence of the corresponding subjective experiences. Consequently, we predicted that simulators exposed to the partial CSTP, like those given the complete CSTP, would respond to the strong compliance demands in these treatments by exhibiting large hypnotizability gains.

In summary, the compliance hypothesis predicts that simulators and nonsimulators will exhibit similar patterns of

responding to the CSTP. According to this hypothesis, both simulators and nonsimulators should exhibit large hypnotizability gains to the complete CSTP, and both simulators and nonsimulators should exhibit relatively small gains to the partial CSTP. In contrast, we predicted that simulators and nonsimulators would exhibit different patterns of response. We hypothesized that simulators would show large hypnotizability gains to both the partial and complete versions of the CSTP. However, we also predicted that, among nonsimulators, only those given the complete CSTP would show large hypnotizability gains.

Method

Initial Assessment Procedure

All subjects were pre-tested on the Carleton University Responsiveness to Suggestion Scale (CURSS; Spanos, Radke, Hodgins, Stam, & Bertrand, 1983). This scale assesses three dimensions of hypnotic susceptibility: an objective dimension (CURSS: *O*), a subjective dimension (CURSS: *S*), and an involuntariness dimension (CURSS: *OI*). The objective score measures overt behavioral response to suggestions. Scores ranging from 0-2 are considered low, 3-4 are medium, and high scores range from 5-7. Subjective scores measure the extent to which subjects generated the subjective experiences called for by the suggestions and range from 0-21. Involuntariness scores reflect the extent to which overt responses to suggestions are experienced as involuntary. These scores range from 0-7.

Subjects

Fifty Carleton University undergraduates (ages 18-39 years) volunteered to participate in a three session hypnosis experiment. All subjects had previously attained low scores on the objective (*O*) dimension of the CURSS. All subjects received course credit for their participation.

Experimental Procedure

Subjects were randomly assigned to one of five conditions with the restriction of an equal number of subjects ($n=10$) in each. Four of the conditions involved administration of a complete or partial modification procedure, the Carleton Skills Training Package (CSTP;

Spanos & Gorassini, 1986). Low hypnotizable subjects assigned to the first condition were administered the complete CSTP (complete reals). The second group of low hypnotizables also received the complete CSTP but were instructed to fake their responses prior to the modification procedure (complete simulators). A partial CSTP was administered to two other groups of low hypnotizables. Those in one group were administered the CSTP without prior instructions to simulate (partial reals), while those in the other group received simulation instructions before CSTP administration (partial simulators). The last group of low hypnotizables, low controls, did not receive a modification procedure. The complete and partial CSTP was administered individually to all subjects.

Simulating Instructions

Prior to the modification procedure subjects assigned to the simulating conditions were administered simulating instructions adapted from Orne (1959; see Appendix G). The subjects were instructed to fake their way through the training and to respond during training, as well as, during later post-testing as they believed a low hypnotizable non-faker would respond. They were further informed that the object of simulating was to fool the experimenter conducting the modification procedure into believing that they were not faking.

Modification Procedure

Complete CSTP. The complete CSTP was administered in the same way to the low hypnotizable reals and simulators. The only

difference between the conditions was the initial instructions provided to the subject prior to the modification procedure (see Appendices G and H). In order to ensure the experimenter would be blind to subjects' group assignment the instructions were read to subjects by someone other than the experimenter administering the modification procedure.

First, the subject was presented with a pre-recorded introduction to hypnosis. The introduction provided subjects with information aimed at dispelling some of the myths and misconceptions surrounding hypnosis. As well, this information attempted to facilitate positive attitudes towards hypnosis. Following the introduction, the recording introduced the first of four practice suggestions, the arm rising suggestion. Next, the subject was presented with a video of a model responding to the arm rising suggestion. The model was described as someone who had successfully completed the modification procedure and was asked to verbalize aloud her thoughts and imaginings. After the video demonstration the subject observed a post-experimental video interview between the model and an experimenter. The interview provided information concerning the proper interpretations of suggestions and hypnotic responding. Next, a brief discussion took place between the subject and experimenter that reiterated important information and served to answer any questions. The subject was then instructed to respond to the arm rising suggestion which was administered by audio tape. Finally, when the suggestion terminated the subject was administered a brief questionnaire. If the subject passed the suggestion they would proceed to the next

practice suggestion. In order to pass a practice suggestion subjects were required to produce the overt responses, as well as, score high on the subjective and involuntary dimensions of the questionnaire. If subjects failed any of these items further discussion ensued in order to clarify or eliminate possible problems. After clarification, subjects would repeat the suggestion. After trial two of the practice suggestion was completed subjects proceeded to the next suggestion regardless of whether they passed or failed. This procedure was repeated for the remaining three practice suggestions: hand lock, book hallucination, and amnesia. Subsequently, four pre-recorded test suggestions (arms apart, voice hallucination, head lowering, and amnesia) were administered without interruption. These test suggestions were different from the practice suggestions but of equivalent difficulty. After completion of all four test suggestions subjects were administered a brief questionnaire. The complete CSTP is described in more detail in Appendices A, B, C, and D.

Partial CSTP. The critical interpretational component of the CSTP was removed to create the partial CSTP. That is, any information depicting suggestions as requiring goal directed responses was omitted from the pre-recorded audio information, video interviews and discussions. The partial CSTP is described in more detail in Appendices C, E, and F.

Follow-Up Assessment Procedure

Post-Test 1. All subjects participated in a group administered post-CURSS. Dimensions of the CURSS are described above. Those subjects who participated in the modification procedures, partial and

complete, were administered the post-CURSS approximately one week after the modification procedure. The purpose of this post-test was to determine if any measurable gains in hypnotizability were attained following skills training. Experimenters other than the one who conducted the modification procedure administered the post-CURSS. All experimenters were blind to the subjects' group assignment.

Post-Test 2. Approximately one week following the post-CURSS all subjects participated in a group administered Stanford Hypnotic Susceptibility Scale, Form C (SHSS: C; Weitzenhoffer & Hilgard, 1962). This scale yields an objective (SHSS: C: *O*), subjective (SHSS: C: *S*), and involuntary (SHSS: C: *OI*) score similar to that of the CURSS. Unlike the CURSS, which consists of 7 suggestions, the SHSS: C contains 10 suggestions. Consequently, objective scores range from 0-10. Scores between 0-4 are classified as low, those between 5-7 are medium and scores from 8-10 are high. Subjective scores range from 0-30 and involuntariness scores range from 0-10. Again the experimenters who administered the SHSS: C were not involved in the modification procedure and were blind to subjects' treatment conditions.

Results

Pre-/Post-CURSS Increases

CURSS: O. Separate 5 X 2 (condition X pre/post CURSS) mixed Analyses of Variances (ANOVA) were conducted to compare the conditions on pre- and post-test CURSS: *O*, *S*, and *OI* scores. Table 1 presents the baseline and post-test treatment condition means for the *O*, *S*, and *OI* dimensions of the CURSS. The ANOVA on CURSS: *O* scores yielded a significant interaction (see Table 2), $F(4,45)=23.40$, $p < .001$. The interaction was analyzed further in terms of simple main effects. The simple main effect of conditions at the baseline trial indicated that none of the groups differed significantly on their baseline CURSS: *O* scores. The simple main effect of treatments at the post-test trial was significant, $F(4,45)=31.72$, $p < .01$. Within subjects simple main effects indicated a significant baseline to post-test increase on CURSS: *O* scores for the complete reals, $F(1,45)=36.59$, $p < .01$, the complete simulators, $F(1,45)=118.54$, $p < .01$, and the partial simulators, $F(1,45)=109.92$, $p < .01$. Alternatively, neither the partial reals nor the low controls demonstrated a significant difference from pre- to post-test. The mean CURSS: *O* increases from pre- to post-CURSS for all subjects are illustrated in Figure 1.

Post hoc comparisons (Newman Keuls) indicated that the complete and partial simulators failed to differ significantly from one another. However, subjects in both of these groups attained higher post-test CURSS: *O* scores than subjects in all of the remaining groups. Importantly, complete reals attained significantly higher post test

Table 1

Pre-/Post-Test Mean CURSS: *O*, *S*, and *OI* Scores

Hypnotizability Dimension	Condition	Pre-test		Post-test	
		M	SD	M	SD
CURSS: <i>O</i>	Complete Simulators	1.4	0.84	6.8	0.42
	Partial Simulators	1.1	0.99	6.3	1.16
	Complete Reals	1.1	0.74	4.1	2.18
	Partial Reals	1.2	0.92	2.5	2.32
	Low Controls	1.3	0.68	1.2	1.23
CURSS: <i>S</i>	Complete Simulators	3.1	3.21	19.8	1.32
	Partial Simulators	2.9	2.69	17.6	3.34
	Complete Reals	3.9	2.64	11.1	5.15
	Partial Reals	3.2	2.30	7.0	4.08
	Low Controls	4.1	3.21	2.7	2.54
CURSS: <i>OI</i>	Complete Simulators	0.3	0.68	6.1	2.23
	Partial Simulators	0.1	0.32	5.9	1.60
	Complete Reals	0.6	0.84	2.6	2.41
	Partial Reals	0.4	0.70	1.4	1.84
	Low Controls	0.3	0.48	0.2	0.63

Note: n=10/grp

Table 2

ANOVA Summary Table for CURSS: O Scores at Baseline and Post-Test

Source	SS	DF	MS	F	Sig of F
Treatment	115.90	4	28.98	13.71	$p < .001$
Within Cells	95.10	45	2.11		
Interval (Pre-/Post-CURSS: O)	219.04	1	219.04	177.60	$p < .001$
Treatment X Interval	115.46	4	28.86	23.40	$p < .001$
Within Cells	55.50	45	1.23		
Treatment @ Pre-CURSS: O	0.68	4	0.17	< 1	n.s.
Treatment @ Post-CURSS: O	212.28	4	53.07	31.72	$p < .01$
Pooled Error		45	1.67		
CURSS @ Comp. Sims.	145.80	1	145.80	118.54	$p < .01$
CURSS @ Part. Sims.	135.20	1	135.20	109.92	$p < .01$
CURSS @ Comp. Reals	45.00	1	45.00	36.59	$p < .01$
CURSS @ Part. Reals	8.45	1	8.45	6.87	n.s.
CURSS @ Low Controls	0.05	1	0.05	< 1	n.s.
Within Cells		45	1.23		

Note: Comp.= Complete, Part.=Partial, and Sims.=Simulators

Figure 1. Mean CURSS: *O* increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.

CURSS: *O* scores than did partial reals. Subjects in both of these groups attained higher scores than no treatment controls.

CURSS: *S*. The 5 X 2 ANOVA on CURSS: *S* scores also yielded a significant interaction (see Table 3), $F(4,45)=44.67$, $p < .001$. Between subjects simple effects conducted on this interaction demonstrated no significant difference between the groups on the pre-CURSS: *S* scores. On the other hand, the simple main effect of treatment at post-CURSS: *S* scores demonstrated a significant difference, $F(4,45)=49.63$, $p < .01$. Simple main effects indicated low control subjects did not differ significantly from pre- to post-test. However, the post-test scores of both the complete and partial reals were significantly higher than their pre-test scores, $F(1,45)=40.82$ and $F(1,45)=11.37$, $p < .01$, respectively. Similarly, the complete and partial simulators also demonstrated significant gains on their post-test scores, $F(1,45)=219.60$ and $F(1,45)=170.15$, $p < .01$. Figure 2 displays CURSS: *S* mean increases from pre- to post-CURSS.

The Student Newman Keuls conducted on the CURSS: *S* scores indicated the same pattern of differences as CURSS: *O* scores. That is, the complete and partial simulators did not differ from one another but attained higher post-CURSS: *S* scores than all other groups. The complete reals scored significantly higher than the partial reals and all of the groups attained significantly higher scores than the low controls .

CURSS: *OI*. The ANOVA conducted on CURSS: *OI* scores also revealed a significant interaction (see Table 4), $F(4,45)=20.24$, $p < .001$. Once again no significant differences were found between any

Table 3

ANOVA Summary Table for CURSS: S Scores at Baseline and Post-Test

Source	SS	DF	MS	F	Sig of F
Treatment	914.54	4	228.64	16.12	$p < .001$
Within Cells	638.30	45	14.18		
Interval (Pre-/Post-CURSS: S)	1681.00	1	1681.00	264.59	$p < .001$
Treatment X Interval	1135.10	4	283.77	44.67	$p < .001$
Within Cells	285.90	45	6.35		
Treatment @ Pre-CURSS: S	11.12	4	2.78	<1	n.s.
Treatment @ Post-CURSS: S	2038.52	4	509.63	49.63	$p < .01$
Pooled Error		45	10.27		
CURSS @ Comp. Sims.	1394.45	1	1394.45	219.60	$p < .01$
CURSS @ Part. Sims.	1080.45	1	1080.45	170.15	$p < .01$
CURSS @ Comp. Reals	259.20	1	259.20	40.82	$p < .01$
CURSS @ Part. Reals	72.20	1	72.20	11.37	$p < .01$
CURSS @ Low Controls	9.80	1	9.80	1.54	n.s.
Within Cells		45	6.35		

Note: Comp.= Complete, Part.=Partial, and Sims.=Simulators

Figure 2. Mean CURSS: S increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.

Table 4

ANOVA Summary Table for CURSS: *OI* Scores at Baseline and Post-Test

Source	SS	DF	MS	F	Sig of F
Treatment	133.04	4	33.26	17.00	$p < .001$
Within Cells	88.05	45	1.96		
Interval (Pre-/Post-CURSS: <i>OI</i>)	210.25	1	210.25	112.57	$p < .001$
Treatment X Interval	151.20	4	37.80	20.24	$p < .001$
Within Cells	84.05	45	1.87		
Treatment @ Pre-CURSS: <i>OI</i>	1.32	4	<1		n.s.
Treatment @ Post-CURSS: <i>OI</i>	282.92	4	70.73	37.03	$p < .01$
Pooled Error		45	1.91		
CURSS @ Comp. Sims.	168.20	1	168.20	89.95	$p < .01$
CURSS @ Part. Sims.	168.20	1	168.20	89.95	$p < .01$
CURSS @ Comp. Reals	20.00	1	20.00	10.70	$p < .01$
CURSS @ Part. Reals	5.00	1	5.00	2.67	n.s.
CURSS @ Low Controls	0.05	1	0.05	<1	n.s.
Within Cells		45	1.87		

Note: Comp.= Complete, Part.=Partial, and Sims.=Simulators

of the groups on their pre-CURSS: *OI* scores. However, the simple main effect of treatments at post-CURSS was significant, $F(4,45)=37.03, p < .01$. Within subjects simple main effects indicated that the complete reals attained higher *OI* scores on the post-test than pre-test, $F(1,45)=10.70, p < .01$. The partial reals did not exhibit any significant changes from pre- to post-test. Complete and partial simulators attained significantly higher post-test than pre-test scores, $F(1,45)=89.95, p < .01$, for both. Again, controls did not demonstrate significant gains from their pre-test to their post-test scores. Means CURSS: *OI* increases from baseline to post-test for all conditions are displayed in Figure 3.

As before, Newman Keuls demonstrated the simulating groups did not differ from one another significantly. Again, both groups scored significantly higher on post-CURSS: *OI* scores than all other groups. However, the complete and partial reals were not significantly different. Although, the results resembled the pattern revealed in earlier post hoc comparisons the difference between the reals, complete and partial, did not attain significance. The absence of a significant difference can be attributed to small sample sizes contributing to a lack of power. The low controls differed significantly from all groups except the partial reals.

SHSS: C Post-Test

Table 5 provides the SHSS: C: *O*, *S*, and *OI* means for each condition. A separate one way ANOVA (condition X SHSS: C) was performed on each dimension (see Table 6). The ANOVA's demonstrated significant differences existed between the five conditions on the *O*, *S*, and *OI* dimensions of the SHSS: C as shown in

Figure 3 Mean CURSS: *OI* increases of complete and partial simulating and nonsimulating subjects and controls from pre- to post-CURSS.

Table 5

SHSS: C Post-Test Mean Scores on all Dimensions

Hypnotizability Dimension	Condition	M	SD
SHSS: C: O	Complete Simulators	9.1	0.88
	Partial Simulator	9.0	0.67
	Complete Reals	6.2	2.74
	Partial Reals	4.3	2.87
	Low Controls	1.9	1.91
SHSS: C: S	Complete Simulators	27.5	2.84
	Partial Simulators	25.9	2.96
	Complete Reals	16.0	7.59
	Partial Reals	10.9	7.34
	Low Controls	5.0	3.86
SHSS: C: OI	Complete Simulators	9.1	0.93
	Partial Simulators	8.7	1.06
	Complete Reals	4.7	3.02
	Partial Reals	2.8	2.53
	Low Controls	0.5	0.85

Note: n=10/grp

Table 6

ANOVA Summary Table for SHSS: C Scores on all Dimensions

Source	SS	DF	MS	F	Sig of F
<hr/>					
<u>SHSS: C: O</u> Treatment	383.00	4	95.75	23.23	$p < .001$
Within Cells	185.50	45	4.12		
<hr/>					
<u>SHSS: C: S</u> Treatment	3716.52	4	929.13	32.45	$p < .001$
Within Cells	1288.30	45	28.63		
<hr/>					
<u>SHSS: C: OL</u> Treatment	540.49	4	135.12	36.43	$p < .001$
Within Cells	163.19	44	3.71		
<hr/>					

Figures 4, 5, and 6.

Post hoc revealed the same pattern of differences for all dimensions of the SHSS: C. For each SHSS: C dimension, the simulating groups did not significantly differ from each other but scored higher than the complete reals. The complete reals scored significantly higher than the partial reals and the low controls had significantly lower scores than all other groups.

Figure 4. Mean SHSS: C: O scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.

Figure 5. Mean SHSS: C: S scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.

Figure 6. Mean SHSS: C: OI scores of controls and skill trained simulating and nonsimulating subjects in both complete and partial conditions.

Discussion

As hypothesized the nonsimulating subjects administered the complete modification procedure (complete reals) produced substantial enhancements from pre- to post-test in their hypnotizability. In contrast, nonsimulating subjects administered the partial modification package (partial reals) produced enhancements that were small and generally nonsignificant. These findings successfully replicate those of Spanos, Robertson et al. (1986). The simulators, in the present study, demonstrated higher increases than any other group regardless of whether they received the partial or complete CSTP. Finally, as in previous studies the low controls' responses did not differ from baseline to post-test. The results of this study provide further evidence to support the social psychological perspective which suggests that compliance can not entirely account for the enhancements in hypnotizability produced by skill trained subjects.

The difference found between simulating and nonsimulating (reals) subjects is evidence that subjects administered a skills training package are not simply complying to experimental demands. Simulators do not have to acquire any skill to attain high post-test scores. All they have to do is fake in terms of the experimental demands. The finding that the simulators given the partial CSTP exhibited as much hypnotizability gains as the simulators given the complete CSTP indicates that subjects in both of these groups were exposed to equivalently strong demands to enhance their hypnotizability. If skill trained subjects were faking to please the

experimenter we would expect to find no difference between their responding and that of simulating subjects. This was not the case. The complete reals attained significant increases from baseline to post-test. But, as demonstrated in past studies and in the present study, simulators tend to overplay the hypnotic role resulting in scores that are substantially higher than skill trained subjects'.

Most important, although subjects in the partial condition received information aimed at improving their attitudes toward hypnosis and on becoming absorbed into suggestion related imagery they only exhibited small and usually nonsignificant gains. The exclusion of the interpretational component which describes hypnosis as goal directed behavior resulted in subjects continuing to interpret hypnosis and hypnotic responding as a passive happening rather than an active doing. Without the interpretational component partial reals failed to generate the combination of subjective experiences and overt responses necessary to attain high levels of hypnotizability. These findings indicate that the effectiveness of the CSTP hinges upon the success of the interpretational component at teaching subjects how to carry out hypnotic responding and not on behavioral compliance.

The high post-test scores following partial CSTP training for the simulators but not for the reals also indicates that reals resist demands for compliance when they have not been taught the skills that enable them to create the suggested effects called for. The findings of other studies also indicate that the compliance hypothesis can not completely account for hypnotizability gains obtained by skill trained subjects. The results found by Spanos, Burgess et al. (1991)

demonstrated that simulating subjects only responded when an observer was present. That is, simulators failed to respond to suggestions when they thought they were alone. Moreover, both skill trained subjects and natural hypnotizables responded not only when an observer was present but also when they believed they were alone. The differences in responding found between simulating and nonsimulating subjects clearly indicates subjects were not simply complying to experimental demands. Taken together with the findings of earlier studies, our results are consistent with the social psychological perspective that hypnosis is genuinely modifiable

Although the present findings, along with those of the many other studies reviewed earlier, argue against compliance as a complete explanation for the hypnotizability gains produced by modification training, other important issues in this research area require more thorough investigation. For example, the long term stability of modification induced gains remains a controversial topic. Much research indicates that, in the absence of attempts at modification, hypnotizability remains stable for even very long temporal intervals (Hilgard, 1965; Spanos, Liddy, & Baxter, 1991). Less data are available concerning the temporal stability of the enhancements in hypnotizability that follow modification training.

In contrast to Bates et al. (1988), Bates and Kraft (1991) found that low hypnotizables administered the CSTP obtained large hypnotizability gains on an initial post-test. Bates and Kraft (1991) then post tested subjects a second time 5 to 7 months after the first post test. Although subjects' post-test 2 hypnotizability scores were

significantly higher than their baseline scores, they were not as high as their post-test 1 scores. Bates and Kraft (1991) interpreted these findings to mean that modification induced hypnotizability gains are unstable, and that over time, subjects tend to revert to their initial levels of hypnotizability. However, methodological considerations raise questions about this interpretation.

Because Bates and Kraft's (1991) subjects attained very high scores on post-test 1, a reduction of these scores on post-test 2 would be expected simply as a function of statistical regression. In addition, a number of studies (reviewed by Barber, Spanos, & Chaves, 1974) indicate that untrained subjects who are retested on the same hypnotizability scale tend to obtain lower scores on each testing. Bates and Kraft (1991) used the same hypnotizability test at baseline and at each post-test.

The only way to determine whether the reduction obtained by Bates and Kraft (1991) from post-test 1 to post-test 2 was greater than would be expected by regression effects coupled with repeated testing would be to test a group of natural (untrained) high hypnotizables whose hypnotizability scores were matched against the post-test 1 scores of the trained subjects. Although Bates and Kraft (1991) did not examine this issue, an earlier study did (Spanos, Cross et al., 1988).

Spanos, Cross et al. (1988) skill trained low hypnotizables using the CSTP and post-tested subjects twice. The first post-test used the CURSS and was administered shortly after skills training. Post-test 2 was administered 9 to 30 after the first and tested subjects using the SHSS: C. Importantly, Spanos, Cross et al. (1988) also tested natural

highs whose hypnotizability scores were matched against the post-test 1 hypnotizability scores of the skill trained subjects. Natural highs, like skill trained subjects, were then retested using the SHSS: C. Contrary to the interpretation of Bates and Kraft (1991), skill trained and natural highs failed to differ significantly on post-test 2 SHSS: C scores. The number of skill trained subjects who scored in the high hypnotizability range was reduced from post-test 1 to post-test 2 but the same was true for the natural highs. Thus, these findings do not support the hypothesis that skill training induced gains in hypnotizability are less stable than the high hypnotizability scores of natural highs.

Findings obtained by Spanos, DuBreuil, and Gabora (1991) also run counter to the Bates and Kraft hypothesis. If the deterioration of hypnotizability scores obtained from a first to a second post-test were due to length of delay, then subjects tested after a long delay should have lower post-test 2 scores than those tested after a short delay. To examine this issue Spanos, DuBreuil et al. (1991) skill trained subjects and post-tested them on the CURSS shortly after training. Half the subjects were post-tested a second time two weeks later using the SHSS: C. The remaining subjects were administered their second post-test four months later. As would be expected on the basis of regression effects, fewer subjects scored in the high hypnotizability range on the second post-test than on the first. Contrary to the length of delay hypothesis, however, subjects in the short and long delay conditions failed to differ significantly on post-test 2 SHSS: C scores.

In all of these studies subjects returned to the same laboratory for retesting, and consequently, were probably aware that their post-test 2 hypnotizability scores would be compared to their post-test 1 scores. Consequently, it is possible to argue that even after a long delay, skill trained subjects might attain relatively high scores because of implicit demands to be viewed by the experimenter as behaving consistently over time. It would be of some interest to test this hypothesis in a future study by comparing the post-test hypnotizability scores of skill trained and matched natural high subjects, when the post-testing is conducted in a context that subjects do not associate with their earlier hypnotizability testing.

References

- Barber, T. X., Spanos, N. P., & Chaves, J. F. (1974). *Hypnosis, imagination, and human potentialities*. Elmsford, N.Y.: Pergamen Press.
- Bates, B. L. (1990). Compliance and the Carleton Skills Training Program. *British Journal of Experimental and Clinical Hypnosis*, 7, 159-164.
- Bates, B. L., & Kraft, P. M. (1991). The nature of hypnotic performance following administration of the Carleton Skills Training Program. *International Journal of Clinical and Experimental Hypnosis*, 39(4), 227-241.
- Bates, B. L., Miller, R. J., Cross, H. J., & Brigham, T. A. (1988). Modifying hypnotic suggestibility with the Carleton Skills Training Program. *Journal of Personality and Social Psychology*, 55(1), 120-127.
- Burgess, C. A., Dubreuil, S. C., Jones, B., & Spanos, N. P. (1990-91). Compliance and the modification of hypnotizability, *Imagination, Cognition and Personality*, 10(4), 293-304.
- Diamond, M. J. (1972). The use of observationally presented information to modify hypnotic susceptibility. *Journal of Abnormal Psychology*, 79, 174-180.
- Diamond, M. J. (1977). Hypnotizability is modifiable: An alternative approach. *International Journal of Clinical and Experimental Hypnosis*, 25(3), 147-166.
- Diamond, M. J., Steadman, C., Harada, D., & Rosenthal, J. (1975). The use of direct instructions to modify hypnotic performance: The

- effects of programmed learning procedures. *Journal of Abnormal Psychology*, 84, 109-113.
- Flynn, D. M., DuBreuil, S. C., Gabora, N. J., Jones, B., & Spanos, N. P. (1990). Skill training and trainer/subject rapport in hypnotisability gain. *Australian Journal of Clinical and Experimental Hypnosis*, 18(2), 83-90.
- Gfeller, J., Lynn, S., & Pribble, W. (1987). Enhancing susceptibility: Interpersonal and rapport factors. *Journal of Personality and Social Psychology*, 52, 586-595.
- Gorassini, D. R., & Spanos, N. P. (1986). A social cognitive skills training program for the successful modification of hypnotic susceptibility. *Journal of Personality and Social Psychology*, 50, 1004-1012.
- Hilgard, E. R. (1965). *Hypnotic Susceptibility*. New York: Harcourt Brace Jovanovich.
- Hilgard, E. R. (1977). *Divided Consciousness*. New York: Wiley.
- Hilgard, E. R. (1989). Simulation, compliance and skill training in the enhancement of hypnotizability: Discussion Commentary. *British Journal of Experimental and Clinical Hypnosis*, 6(1), 9-11.
- Kirsch, I., Silva, C. E., Carone, J. E., Johnston, J. D., & Simon, B. (1989). The surreptitious observation design. An experimental paradigm for distinguishing artifact from essence in hypnosis. *Journal of Abnormal Psychology*, 98(2), 132-136.
- Orne, M. T. (1959). On the nature of hypnosis: Artifact and essence. *Journal of Abnormal and Social Psychology*, 58, 277-299.

- Orne, M. T. (1979). On the simulating subject as a quasi-control group in hypnosis research: What, why, and how. In E. Fromm and R.E. Shor (Eds.), *Hypnosis: Developments in Research and New Perspectives*. New York: Aldine.
- Perry, C. (1977). Is hypnotizability modifiable? *The International Journal of Clinical and Experimental Hypnosis*, 25(3), 125-146.
- Sachs, L. B. (1971). Construing hypnosis as modifiable behaviour. In A. Jacobs and L.B. Sachs (ed.s), *Psychology of Private Events*. New York: Academic Press.
- Shor, R. E., Orne, M. T., & O'Connell, D. N. (1966). Validation and co-validation of a scale of self-reported personal experiences which predicts hypnotizability. *Journal of Psychology*, 53, 55-57.
- Spanos, N. P. (1982). A social psychological approach to hypnotic behaviour. In G. Weary & H.L. Mirel (Eds.), *Integrations of Clinical and Social Psychology*. NY: Oxford University Press.
- Spanos, N. P. (1986). Hypnosis and the modification of hypnotic susceptibility: A social psychological perspective. In Peter L.N. Naish (Ed.), *What is Hypnosis? Current Theories and Research*. Philadelphia: Open University Press.
- Spanos, N. P. (1990). More on compliance and the Carleton Skills Training Program. *British Journal of Experimental and Clinical Hypnosis*, 7, 165-170.
- Spanos, N. P., Burgess, C. A., Roncon, V., Wallace-Capretta, S., & Cross, P. (1991). *Surreptitiously Observed Hypnotic Responding in Simulators and in Skill Trained and Untrained High*

Hypnotizables. Manuscript submitted for publication, Carleton University.

- Spanos, N. P., Cross, W. P., Menary, E. P., Brett, P. J., & de Groh, M. (1987). Attitudinal and imaginal ability predictors of social cognitive skill-training enhancements in hypnotic susceptibility. *Personality and Social Psychology Bulletin*, 13(3), 379-398.
- Spanos, N. P., Cross, W. F., Menary, E., & Smith, J. (1988). Long-term effects of cognitive-skill training for the enhancement of hypnotic susceptibility. *British Journal of Experimental and Clinical Hypnosis*, 5(2), 73-78.
- Spanos, N. P., de Groh, M., & de Groot, H. (1987). Skill training for enhancing hypnotic susceptibility and word list amnesia. *British Journal of Experimental and Clinical Hypnosis*, 4(1) 15-23.
- Spanos, N. P., DuBreuil, S. C., & Gabora, N. J. (1991). Four-month follow-up of skill-trained-induced enhancements in hypnotizability. *Contemporary Hypnosis*, 8(1), 25-32.
- Spanos, N. P., & Flynn, D. M. (1989). Simulation, compliance and skill training in the enhancement of hypnotizability: Main Paper. *British Journal of Experimental and Clinical Hypnosis*, 6(1), 1-8.
- Spanos, N. P., & Flynn, D. M. (1989). Compliance, imaginal correlates and skill training: Author's Reply. *British Journal of Experimental and Clinical Hypnosis*, 6(1), 12-15.
- Spanos, N. P., Flynn, D. M., & Niles, J. (1989-90). Rapport and cognitive skill training in the enhancement of hypnotizability. *Imagination, Cognition and Personality*, 9(3), 245-262.

- Spanos, N. P., Liddy, S. C., & Baxter, C. E. (1991). *Long term and short stability of behavioral and subjective indexes of hypnotizability*. Unpublished manuscript, Carleton University.
- Spanos, N. P., Lush, N. I., & Gwynn, M. I. (1989). Cognitive skill-training enhancement of hypnotizability: Generalization effects and trance logic responding. *Journal of Personality and Social Psychology*, 56(5), 795-804.
- Spanos, N. P., Radtke, H. L., Hodgins, D. C., Bertrand, L. D., Stam, H. L., & Moretti, P. (1983b). The Carleton University Responsiveness to Suggestion Scale: Relationships with other measures of susceptibility, expectancies and absorption. *Psychological Reports*, 53, 723-734.
- Spanos, N. P., Radtke, H. L., Hodgins, D. C., Stam, H. L., & Bertrand, L. D. (1983). The Carleton University Responsiveness to Suggestion Scale: Normative data and psychometric properties. *Psychological Reports*, 53, 523-535.
- Spanos, N. P., Robertson, L. A., Menary, E. P., & Brett, P. J. (1986). Component analysis of cognitive skill training for the enhancement of hypnotic susceptibility. *Journal of Abnormal Psychology*, 95(4), 350-357.
- Spanos, N. P., Robertson, L. A., Menary, E. P., Brett, P. J., & Smith, J. (1987). Effects of repeated baseline testing on cognitive-skill-training-induced increments in hypnotic susceptibility. *Journal of Personality and Social Psychology*, 52(6), 1230-1235.
- Spanos, N. P., Warnock, S., & de Groot, H. P. (1990). Cognitive skill training, confirming sensory stimuli, and responsiveness to

suggestions in subjects unselected for hypnotizability. *Journal of Research in Personality*, 24, 133-144.

Weitzenhoffer, A. M., & Hilgard, E. R. (1962). *Stanford Scale of Hypnotic Susceptibility, Form C*. Palo Alto, Calif.: Consulting Psychologists Press.

Appendix A

Complete 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 suggestions 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 his or her mind 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 videotape 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 videotape 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 the videotape 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 AUDIOTAPE UNTIL THE LAST LINE OF THE ARM RISING SUGGESTION; "Here is the subject responding to the arm rising suggestion." THEN STOP THE AUDIOTAPE 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 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 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 exhalation and raising it more on the next inhalation. Deep breathing and relaxation are 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 SUBJECT PASSES THE OBJECTIVE ASPECT OF THE ITEM AND RECEIVES A "1". IF THE SUBJECT DOES NOT RAISE HIS/HER ARM MORE THAN SIX INCHES, THE SUBJECT FAILS THE OBJECTIVE ASPECT OF THE SUGGESTION, WILL GET A "0" AND WILL HAVE TO TRY IT AGAIN. AS SOON AS THE SUGGESTION IS OVER, THE EXPERIMENTER GIVES THE SUBJECT THE TWO-PAGE, TWO-QUESTION SUBJECTIVE EXPERIENCE ITEMS. NO TALKING WITH THE SUBJECT UNTIL THESE QUESTIONS HAVE BEEN

ANSWERED. SCORING ON THE SUBJECTIVE QUESTIONS IS AS FOLLOWS:

THE SUBJECT MUST RESPOND TO BOTH QUESTIONS WITH A (c) OR (d) IN ORDER TO PASS THE SUBJECTIVE ITEMS. IN ORDER FOR THE SUBJECT TO MOVE ON TO 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 JUDGEMENTS 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 THE ABOVE. THE SUBJECT GOES ON TO THE SECOND SUGGESTION REGARDLESS OF THE SCORE. IF THE 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 AUDIOTAPE UNTIL THE VOICE SAYS: "She will verbalize aloud the appropriate kind of thoughts and imaginings one should have during the suggestions." THEN PLAY THE 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 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. Okay, 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 THE 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 TWO QUESTIONS PERTAINING TO THE SUBJECTIVE EXPERIENCE DURING THIS SUGGESTION SCORE THESE AS IN THE ARM RISING SUGGESTION.

Book Suggestion

PLAY THE INTRODUCTION ON THE AUDIOTAPE AND THEN AT "pay careful attention" STOP IT AND TURN ON THE VIDEOTAPE 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 your mind's eye you can trace the outline of where the book would be if it was 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 hardcover? 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 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 imaging the book there, follow through on the physical motion of pushing the book aside. 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 HE OR SHE PUSHES THEIR HAND ACROSS THE TABLE. WITH PASSING THE SUBJECTIVE ITEMS, THE SUBJECT IS ALLOWED 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 your mind's eye?

Amnesia Suggestion

THE EXPERIMENTER PLAYS THE AUDIOTAPE FOR THE INTRODUCTION TO THE SUGGESTION UNTIL IT SAYS, "attend carefully to what she does". THEN ROLL THE VIDEOTAPE 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, 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 that person, you simply cannot remember it. Or you might imagine what it feels like to be writing an exam and are 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 to feel that certain vague and unfocused 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. Any time they feel an urge to recall the suggestions, they just imagine that the blackboard is wiped clean and do not pursue the matter any further. When the amnesia suggestion is cancelled, they imagine the suggestions are 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 minds wander and need make little or no effort to distract themselves from focusing 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". Okay, 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:

Okay. 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 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 AUDIOTAPE. 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 END OF THE FOUR-ITEM TEST, THE EXPERIMENTER HANDS THE SUBJECT THE SUBJECTIVE QUESTIONS. ONCE AGAIN, NO TALKING WITH THE SUBJECT UNTIL HE OR SHE HAS COMPLETED ALL THE QUESTIONS. WHEN THE SUBJECT HAS ANSWERED ALL THE QUESTIONS, REINFORCE HIS OR HER

PARTICIPATION, IMPROVEMENT 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.

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

Appendix B

Complete Audio Training Information

Remember how in old movies the hypnotists 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 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 with 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 an 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 become 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 the 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 probably 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.

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 nor mysterious. It's a 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 or her attention from the make-believe world to the real world goal of satisfying his or her 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 or a famous movie star. 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 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 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 other 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 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 roll 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. Here is the subject responding to the arm rising suggestion. (PLAY VIDEOTAPE 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 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 two 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 aloud 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. Okay, try to pull them apart. (WAIT 25 SECONDS.) Okay, 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 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 setting 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. Towards 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 suggestion 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'm not sure if you've noticed, but there is a book of mine on the desk in front of you. It is an average-sized book, one like hundreds 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 has faded completely and you can no longer see the book.

The next suggestion is 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 suggestions 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 suggestions 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 once. 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 the suggestions required; she can forget the suggestions presented earlier, and she can simultaneously make believe that she has done nothing to make the suggestions 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.

Instructions for Test Suggestions

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 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 the 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. 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 moment, 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 birth place and raise your hand to answer the question. (WAIT 20 SECONDS.) Okay, 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.

Head Lowering Suggestion

Now, imagine that a force is pushing down on 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 is pushing downward. Your head is being pushed down with such force 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.

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 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: Complete and Partial

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. More and more helium is being pumped into you 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 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 finger. (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.) Okay, 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) Okay, relax. Your hands are no 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-sized 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 be given 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: CompleteArm-Rising Suggestion

H: So, how did you find responding to this one?

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

H: I see.

M: 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.

H: Like what?

M: 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.

H: I see.

M: 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 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.

H: So, it felt real.

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

H: Yes, exactly.

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

H: Very good!

Hand-Lock Suggestion

H: How was this one?

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

H: Yes, you sure are.

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

H: Anything else?

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

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

M: 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?

H: That's right.

M: 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.

H: Very good. That's just what I wanted you to do. Anything else?

M: Uh. No, I can't think of anything.

Book Hallucination Suggestion

H: How did you find this one?

M: 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.

H: And when you opened your eyes?

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

H: How do you mean?

M: 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.

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

M: 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 wander for a second. You really have to let yourself see the book there all the time.

H: Uh h-u-u-m

M: 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

H: How was this one?

M: Pretty good. I just let my attention drift away from the memories of the suggestion.

H: So it was you who caused your forgetting.

M: 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.

H: Ah yes, I see.

M: I just didn't stop and let myself think back. Instead, I just let my mind become preoccupied with other things.

H: Like what?

M: 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.

H: Yes, I see. What about when you were told to try and remember the suggestions?

M: 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.

H: Yes, that's right. Anything else?

M: 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.

H: Almost everyone finds that.

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

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

Appendix E

Partial 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 suggestions 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 his or her mind 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 videotape of a subject responding to the suggestion. She has practiced the skill which you are going to learn today. You will

2 OF/DE 2

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

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 videotape 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. Then you will have an opportunity to practice responding to the suggestion yourself. In this way, we will work with four suggestions together, using the videotape 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 AUDIOTAPE UNTIL THE LAST LINE OF THE ARM RISING SUGGESTION; "Here is the subject responding to the arm rising suggestion." THEN STOP THE AUDIOTAPE AND TURN ON THE VIDEO TO PLAY THE RESPONSE FOR THIS SUGGESTION.

Discussion with Subject

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 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 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." 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

Deep breathing and relaxation are appropriate to a suggestion which involves lightness. Use a mental image that is familiar to you. Keep the arm loose, not tight or clenched. 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 SUBJECT PASSES THE OBJECTIVE ASPECT OF THE ITEM AND RECEIVES A "1". IF THE SUBJECT DOES NOT RAISE HIS/HER ARM MORE THAN SIX INCHES, THE SUBJECT FAILS THE OBJECTIVE ASPECT OF THE SUGGESTION, WILL GET A "0" AND WILL HAVE TO TRY IT AGAIN. AS SOON AS THE SUGGESTION IS OVER, THE EXPERIMENTER GIVES THE SUBJECT THE TWO-PAGE, TWO-QUESTION SUBJECTIVE EXPERIENCE ITEMS. NO TALKING WITH THE SUBJECT UNTIL THESE QUESTIONS HAVE BEEN ANSWERED. SCORING ON THE SUBJECTIVE QUESTIONS IS AS FOLLOWS:

THE SUBJECT MUST RESPOND TO BOTH QUESTIONS WITH A (c) OR (d) IN ORDER TO PASS THE SUBJECTIVE ITEMS. IN ORDER FOR THE SUBJECT TO MOVE ON TO 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 JUDGEMENTS 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 THE ABOVE. THE SUBJECT GOES ON TO THE SECOND SUGGESTION REGARDLESS OF THE SCORE. IF THE 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 AUDIOTAPE UNTIL THE VOICE SAYS: "She will verbalize aloud the appropriate kind of thoughts and imaginings one should have during the suggestions." THEN PLAY THE VIDEO OF THE SUBJECT RESPONDING.

Discussion with the Subject:

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.

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. Okay, 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 THE 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 TWO QUESTIONS PERTAINING TO THE SUBJECTIVE EXPERIENCE DURING THIS SUGGESTION SCORE THESE AS IN THE ARM RISING SUGGESTION.

Book Suggestion

PLAY THE INTRODUCTION ON THE AUDIOTAPE AND THEN AT "pay careful attention" STOP IT AND TURN ON THE VIDEOTAPE FOR THE RESPONSE. 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 your mind's eye you can trace the outline of where the book would be if it was 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 hardcover? 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 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.

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 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 HE OR SHE PUSHES THEIR HAND ACROSS THE

TABLE. WITH PASSING THE SUBJECTIVE ITEMS, THE SUBJECT IS ALLOWED 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 your mind's eye?

Amnesia Suggestion

THE EXPERIMENTER PLAYS THE AUDIOTAPE FOR THE INTRODUCTION TO THE SUGGESTION UNTIL IT SAYS, "attend carefully to what she does". THEN ROLL THE VIDEOTAPE FOR THE DEMONSTRATION BY THE SUBJECT.

Discussion with the Subject:

If you want, you can do what the subject on the tape did or you can just keep repeating the suggestion to yourself and allow the memories of the suggestions to fade from mind. Whatever you do, it is important that you make believe that you have the feeling that the suggestions have just gone away. You want it to feel like you are trying to remember them, but just cannot. Okay, 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:

Okay. 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 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 AUDIOTAPE. 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 END OF THE FOUR-ITEM TEST, THE EXPERIMENTER HANDS THE SUBJECT THE SUBJECTIVE QUESTIONS. ONCE AGAIN, NO TALKING WITH THE SUBJECT UNTIL HE OR SHE HAS COMPLETED ALL THE QUESTIONS. WHEN THE SUBJECT HAS ANSWERED ALL THE QUESTIONS, REINFORCE HIS OR HER PARTICIPATION, IMPROVEMENT 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.

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

Appendix F

Partial Audio Training Information

Remember how in old movies the hypnotists 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 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 with 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 an 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 become 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 the 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 probably 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.

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 nor mysterious. It's a 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 or her attention from the make-believe world to the real world goal of satisfying his or her 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 or a famous movie star. 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 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 imagine that the arm is really a hollow balloon that is being pumped full of helium, and anything else you wish to imagine that is consistent with such a make-believe situation.

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 other 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 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 roll 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. Here is the subject responding to the arm rising suggestion. (PLAY VIDEOTAPE 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 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 two hunks of steel that are welded together. Following this, the suggestion will challenge you to pull the hands apart. Make believe that the hands are unable to come apart by virtue of their being welded together.

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 aloud 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. Okay, try to pull them apart. (WAIT 25 SECONDS.) Okay, 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 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 setting 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.

Now, observe the actions of the subject on the videotape when she is presented with the suggestion 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'm not sure if you've noticed, but there is a book of mine on the desk in front of you. It is an average-sized book, one like hundreds 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 has faded completely and you can no longer see the book.

The next suggestion is 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 suggestions 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. 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 suggestions 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 once. 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 the suggestions required; she can forget the suggestions presented earlier, and she can simultaneously make believe that she has done

nothing to make the suggestions 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.

Instructions for Test Suggestions

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 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 the 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. 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 moment, 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 birth place and raise your hand to answer the question. (WAIT 20 SECONDS.) Okay, 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.

Head Lowering Suggestion

Now, imagine that a force is pushing down on 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 is pushing downward. Your head is being pushed down with such force 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.

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 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 G

Simulator Instructions

We much appreciate your participation in our previous hypnosis session. Today I would like you to take part in a very interesting experiment that is somewhat different from the last session. In your last session, you attempted to go into hypnosis and found it quite difficult to respond. Although you may have perhaps experienced some suggestions to a slight degree, it was not possible to feel much else.

In today's experiment you will be working with _____. _____ will administer to you a training program designed to teach people who score low in hypnotic susceptibility, how to become highly hypnotizable people who are capable of responding very well to hypnotic suggestions.

In today's session, however, you will have a very special task. During the session with _____ I do NOT want you to actually become a highly hypnotizable subject. Instead, I want you to do your very best to FAKE behaving as though you are a subject who undergoes training and becomes a subject who is very responsive to suggestions.

Basically, we are interested in finding out how well people are able to successfully fake their way through the training procedure. Our preliminary results indicate that intelligent subjects who pay careful attention to what _____ tells them are able to figure out

how hypnotizable subjects who receive this kind of training are supposed to behave.

_____ will know that some subjects are faking through the training session and that some are not. However, she/he will not know who is who. If she/he figures out that you are faking she/he will stop the experiment. So, as long as _____ does not stop the session you are doing fine and should keep doing whatever you are doing to fool her/him.

I can't tell you how to behave or what to do in order to convince _____ that you have learned to become a highly responsive subject. You have to use whatever cues you get from _____ and whatever you can learn from the situation to figure out how a highly responsive subject would behave.

During the training session _____ will be giving you suggestions. She/he will also be asking you to fill out questionnaires about your experiences. It is very important that you respond to all of the suggestions in the way that a hypnotizable subject would behave. It is equally important that you fill out all of the questionnaires in the way that you believe someone trained to be a highly responsive subject would answer them.

Remember, do NOT fill out the questionnaires honestly or report on them what you actually feel. Instead, fill them out the way you believe that a subject who was exposed to the training procedure and was successful would fill them out.

During the training session you will be asked to carry out various imagery tasks and will be asked to try and subjectively experience various suggested effects. It is not important for you to

try and actually experience any of these things. However, it is VERY important that you PRETEND to have the experience that you believe a non-faking subject would have.

I would like you to fake throughout the whole session with _____. Never let her/him know that you are faking. Continue to fake that you have become a highly responsive subject for the entire time you are in the presence of _____ and until instructed otherwise by myself or another lab member. We will be the only ones who will know that you were faking and it is important to the success of the experiment that you not let on to _____ or to anyone else that you were faking.

One final thing, _____ is a nice person and therefore subjects sometimes feel guilty about faking or about trying to fool her. It is important that you do not feel this way. This is a very important study and the only way certain scientific questions can be answered is by asking some subjects to fake their way through procedures. Remember, _____ does know that some subjects are faking, it's just that she/he doesn't know who is and who isn't. So, don't feel badly about fooling her/him. By doing it successfully you are helping the experiment.

Appendix H

Real Instructions

We much appreciate your participation in our previous hypnosis session. Today I would like you to take part in a very interesting experiment that is somewhat different from the last session. In your last session, you attempted to go into hypnosis and found it quite difficult to respond. Although you may have perhaps experienced some suggestions to a slight degree, it was not possible to feel much else. In today's session you will be working with _____ She/he will administer to you a training program designed to teach people who score low in hypnotic susceptibility, how to become highly hypnotizable people who are capable of responding very well to hypnotic suggestions. In this session you will be asked to carry out various imagery tasks and will be asked to try and subjectively experience various suggested effects. _____ will also be asking you to fill out questionnaires about your experiences.

END

14-12-93

FIN