This bibliography of research on counterattitudinal advocacy begins with a list of independent variables, cross-indexed with authors. In the research summaries, the compiler has followed a consistent pattern of organization: (1) the hypotheses are stated first, followed by the independent and dependent variables, (2) a summary of the manipulation is given with indication of types of subjects and the length of time between pretest and experimental manipulation, (3) the topic of the study is given, and (4) the results are summarized. Finally, the compiler summarizes any problems the researcher might have encountered, other interpretations of the data given by other social psychologists, and any quotations of importance found in the reference. (Author/RN)
AN ANNOTATED BIBLIOGRAPHY OF STUDIES ON COUNTERATTITUDINAL ADVOCACY

Prepared by:

Eugene Tate

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This bibliography began during a seminar on counterattitudinal advocacy in the Department of Communication at Michigan State University. A group of students met under the direction of Dr. Gerald R. Miller to carefully analyze the theories, procedures, and results of this research. Journals were carefully searched for all studies published up to that time (1969). The studies analyzed at that time make up less than 50% of this current bibliography. Since that time I have continued to search journals and correspond with researchers in order to find the most recent studies. It is hoped that this annotated bibliography will help in providing a focus for future research.

One word should be said about the hypotheses reported in the bibliography. When one begins to read carefully a large number of research reports, he is immediately struck by the variety of language used to describe variables and the various styles of reporting. In some cases the authors of research reports did not explicitly state the hypotheses which they desired to test. Thus it was often necessary to write a hypothesis which indicated the direction of the undertaking. In all cases an attempt has been made to be faithful to the perceived intentions of the authors. Other authors have stated their hypotheses very carefully and these are quoted from their articles. If any mistake has occurred, it is this author's alone and correction will be made upon notification of the mistake.

The index of independent variables will give the reader an idea of the proliferation of terms in this research. Each author has chosen to invent his own language, or jargon if you wish, to describe the variables which he is attempting to manipulate. Recently this proliferation seems to have slowed down. An attempt has been made in the index to indicate terms which relate directly to other variables. The variable could have been indexed in several ways. "Feedback", for example, is used by several authors for at least three different manipulations: evaluation of message by the experimenter, to suggest to the sender the consequences of his message upon his audience, and to indicate what majority of the audience was persuaded by a speech. Each of these manipulations seem to have a different effect upon the subject. Perhaps further research is needed to test out the implications of each of these operationalization of variables upon counterattitudinal advocacy.

A consistent pattern has been followed in the research summaries. The hypothesis, or hypotheses, are stated first, followed by the independent and dependent variables. Then a summary of the manipulation is given with some indication as to type of subjects and length between pretest and experimental manipulation. The topic is then given for every study in which it was reported. Finally the results are given, followed by any problems the researchers encountered, other interpretations
of the data given by social psychologists other than the author, and any quotations of importance found in the article.

During the course of the preparation of this bibliography, many persons have been instrumental in helping the author. Dr. Gerald R. Miller has continually supported, encouraged, and motivated me to continue working upon it. I wish to thank him for everything he has done, including a small grant which was instrumental in preparation of the first rough draft. Many persons have answered my inquiries, sent unpublished documents, and supported the rough draft. In only one or two cases were requests for unpublished manuscripts denied. I am very grateful for this kind support. My fellow graduate students at Michigan State University also gave support and encouragement, especially Edward Bodaken, Wayland Cummings, Bonita Perry, Stuart Surlin, and Michael Burgoon. Principal P.J.M. Swan of St. Thomas More College, University of Saskatchewan, has been especially helpful in allowing me to pursue this work with a grant for publication of the rough draft. Dr. Ellen Jastrebske of the Dept. of Psychology at St. Thomas More has shared my interest in this area, listened patiently to my frustrations, and made helpful suggestions about the research reported here. I want also to thank Vice-Principal Carlyle King and Principal R.W. Begg of the University of Saskatchewan, Saskatoon Campus, who made available the grant under which the bibliography was published. Miss Karen Robson must be thanked for typing the manuscript.

I want to also express my special gratitude to my wife for her support and encouragement during the three years of this project.
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**H** - Persons who publicly encode a counterattitudinal endorsement and sign a "Standard Waiver Form" committing them to continued public endorsement of the counterattitudinal position will show more attitude change in the direction of the belief-discrepant message than subjects who have made a private counterattitudinal endorsement.

**I.V.** - Commitment (public - private)
Justification (50¢ - $1.75)
Presentation (true - persuasive)

**D.V.** - Attitude change

**Manip** - Ss made a taped speech giving a "brief, positive description" of electronic music. Publicly committed subjects gave their name, college residence, and signed a "Standard Waiver Form" committing themselves to public support of the speech for a specific period of time. Private Ss were told that only the good ideas would be used from their speeches.

**Topic** - Electronic music

**Results** - n.s.

**Probs** - Substantial subject loss in experimental conditions (19 of 115 Ss in exp. cond.). Failure to produce dissonance effect in public commitment condition. The average initial attitude towards electronic music was 4 on a 7 point scale. It is impossible that the counterattitudinal endorsement was assimilated into Ss own opinion.

H - After performance of a morally dissonant act, attitude toward the issue will be more favorable when the inducing agent is attractive than when he is unattractive. This effect will be more pronounced in the High Arousal condition. Variations in the attractiveness of the agent will have no differential effect on attitudes toward the experiment and the task.

After performance of a hedonically dissonant act, attitudes toward the task and the experiment will be more favorable when the inducing agent is unattractive than when he is attractive. This effect will be more pronounced in the High Arousal condition. Variations in the attractiveness of the agent will have no differential effect on attitudes toward the issue.

I.V. - Type of dilemma (moral - hedonic)
Level of dissonance (high - low)
Attractiveness of experimenter (attractive - unattractive)

D.V. - Attitude change

Manip - In all conditions: E describes task to S and discloses his membership in an organization favoring the induced action. Presentation of choice. Manipulation of E's attractiveness. Performance of task. Assessment of attitudes toward issue, task, etc.

Moral - Ss participated in two-person interview. S was interviewer and was to attempt to effect attitude change in the interviewee by reinforcing verbally certain statements (which were counterattitudinal to S). Interviewee was confed. of E who gradually changed his viewpoint under reinforcement from S. Confed. manipulated attractiveness by description of E (fair - honest - interested in teaching - enjoyed teaching / unfair - unreasonable - unqualified to teach).

Hedonic - Ss was to analyze the interview process by listening to a tape-recording of student undergoing an interview. S read question from list and listened to answer on tape and tallied number of nouns and verbs
in each sentence and list all technical terms. White noise added in High dis. condition to make exp. unpleasant.

Topic - Should the state government have the final voice in determining who should speak on state campuses?

Results - Hyp. la confirmed

The attractive agent in moral dissonance condition had or produced a favorable effect upon attitudes toward the task and experiment.

Hyp. 2a confirmed

Hyp. 2b confirmed – attractiveness of E had no differential effect on attitudes toward the issue.

Disc - Ss in the attractive E - high arousal condition showed greatest amount of attitude change and greatest number of reinforcements. A correlation check shows that this cannot be explained in terms of difference in involvement and effort, mediated by differences in dissonance arousal. Quotes Weick (1966) who suggests that S in forced compliance situations makes two decisions with regard to task performance: (1) whether to remain and perform the task, and (2) how well the task will be executed. "The significant attractiveness main effect ... suggests that, even when attractiveness of the inducing agent does not affect the first type of decision, it may well affect the second" (p. 64).

In hedonic dissonance the highest task performance -- as well as the most favorable evaluation of the issue -- obtained in the Unattractive E - High Arousal condition. Performance as well as attitudes seem to be mediated by a justification process: if E is unattractive, they are more inclined to evaluate and to perform the task in a way that demonstrates how much they really like it.

Probs - In moral dissonance condition there was a failure to find differences in the postexperimental evaluations of the attractive and unattractive E. They speculate that because of Ss own complicity via role of shaping interviewer they have little motivation to express public criticism of E.

H - An individual's belief and attitude statements and the beliefs and attitudes that an outside observer would attribute to him are functionally equivalent in that both sets of statements are 'inferences' from the same evidence: the public events that the socializing community originally employed in training the individual to make such self-descriptive statements.

Exp. I - The belief statements made by Cohen's Ss when they were asked for their "true" opinions may be viewed as judgments based on the made-tact characteristics of their own behavior, that is, on their own credibility as communicators.

I.V. - Description of Justification offered Cohen's Ss (50¢ - $1.00 — no description of justification)

D.V. - Attitude change

Manip - Ss were randomly assigned to 50¢, $1.00 and control groups. Ss received a written description of Cohen's experiment. The second paragraph of the description contained the information about incentive and writing of counterattitudinal essay. Control Ss did not receive the second paragraph. Ss were asked to estimate the actual opinion of a student taking part in Cohen's experiment.

Topic - Why the New Haven Police Actions Were Justified.

Results - Bem's simulation of Cohen's experiment produces the same results as Cohen's -- the less the justification received for a counterattitudinal endorsement the more the attitude change.

Disc - "These results show that the mand-tact interpretation of the general inverse relation between amount of payment and subsequent belief statements is ... viable: the lower the payment, the less the mand properties of the observed behavior predominate in the eyes of both intra- and interpersonal observers. To the extent that the behavior has non-mand properties, it will be discriminated by an observer (including the individual himself) as indicating the "true" beliefs of the individual."

**H** - Exp. I - Subjects given greater freedom of choice to engage in the counterattitudinal behavior will show significantly greater attitude change in the direction of agreement with that behavior than do subjects given less freedom of choice and significantly greater attitude change than control subjects.

Exp. II - Subjects who engage in counterattitudinal behavior when asked to recall their premanipulation attitudes will be unable to do so because actual premanipulation attitudes are not salient features of post manipulation phenomenology and are recalled as identical to postmanipulation attitudes.

**I.V.** - Exp. I - Choice
Exp. II - Choice

**D.V.** - Exp. I - Attitude change
Exp. II - Recall of premanipulation attitudes

**Manip** - Ss in both experiments reported for the experiment in two sessions. During the first session, Ss filled out an attitude questionnaire. One week later in the second session Ss were induced to write a counterattitudinal essay. In the no choice condition paper for the essay followed the instructions in the exp. booklet. In the choice condition the instruction sheet told the S he could write on either side of the issue. Immediately following the instructions there was an "addendum" sheet stating that the E discovered that he now had enough pro-arguments and requesting that they write anti-arguments. In Exp. II Ss were given an additional questionnaire asking them to recall their rating of the issue on the previous week's questionnaire.

**Topic** - Students should have very little or no control over the kinds of courses offered by the University.

**Results** - Exp. I - sig.
Exp. II - sig.

**Disc** - Supports Bem's contention that data from the incoming behavior 'update' the attitudinal information for the subject and destroy any earlier information to the contrary.

H - Counterattitudinal role-playing will affect subject's involvement, producing a change in the width of their regions of acceptance and rejection.

When counterattitudinal role-playing includes a value-bonding technique (Ostrom and Brock, 1968) subjects will become more involved in the role play and demonstrate a change in the latitude or acceptance or rejection.

I.V. - Ego involvement
role play / no role play

D.V. - Regions of acceptance and rejection (attitude change)

Manip - S's received an experimental booklet under the guise of a 'study of opinion survey techniques'. Ss were asked to rate their own positions toward the church on a favorable/unfavorable dimension and write a brief paragraph expressing their own attitudes toward the attitude-object. Ss were then asked to write essays linking their own attitudes towards the church to each of six value statements (Value bonding manip). Experimental Ss then wrote a counter-attitudinal essay under guise of a study to examine how well people can invent arguments that are discrepant to their own. Two control groups -- 1. central value bonding, 2. peripheral-value bonding -- did not do this task. Ss finally completed two attitude scales and three self-report measures.

Topic - Attitudes toward the church

Results - Ss region of acceptance were negatively related to central value bonding, whereas their region of rejection was positively related to central value bonding. In other words, large regions of acceptance and small regions of rejection were found for low-involvement Ss, whereas small regions of acceptance and large regions of rejection were found for high-involvement. Central value-bonding produced high-involvement.

Role playing exerted a negative effect on Ss involvement. The region of rejection was slightly more sensitive to this effect than region of acceptance.
Role play produced no sig. attitude change on the two scales utilized. (Used five unfavorable items from Thurstone's scale of attitude toward church and a rating scale based on Sherif's method of ordered alternatives).

H - At the level of simple commitment to engage in belief-discrepant behavior, there will be an inverse relationship between incentive magnitude and attitude change among persons with low n influence. This inverse relationship will not hold among persons with high n influence.

After taking a belief-discrepant position, persons with high n influence who successfully persuade another to adopt that position will report greater attitude change in the belief-discrepant direction that successful low n influence persuaders. However, there will be little difference in amount of attitude change between high and low n influence individuals who fail to persuade others to accept a belief-discrepant position.

After taking a belief-discrepant position, persons with high n influence will report greater attitude change in the belief-discrepant direction than will persons with low n influence.

Belief-discrepant messages encoded by persons with low n influence under conditions of low justification will contain significantly fewer first person pronouns than belief-discrepant messages encoded in the other three conditions.

Belief-discrepant messages encoded by persons with low n influence under conditions of low justification will contain significantly longer sentences than belief-discrepant messages encoded in the other three conditions.

Belief-discrepant messages encoded by persons with low n influence under conditions of low justification will contain significantly more crossouts and insertions than belief-discrepant messages encoded in the other three conditions.

I.V. - Need influence (High - low)
     Justification (50¢ - $2.50)
     Persuasive outcome (success - failure)

D.V. - Attitude change

Manip - Ss completed measures of attitude and need influence approx. three weeks before experimental session. Ss were contacted by telephone and told they would be paid for participation
H₂ - High n influence Ss who failed showed more attitude change in direction of the message than High successful group. Low n influence Ss showed more attitude change than control group. There is a significant interaction effect between Motivation and Feedback.

**H** - High n influence persons who successfully influence an audience to adopt a counterattitudinal position should manifest less attitude change than successful low n influence persuaders since successful influence is more "desirable" for the highs than the lows.

If both highs and lows fail to influence their audiences, they should both show little attitude change since they should experience little dissonance.

**I.V.** - Need to influence
Consequences of a counterattitudinal message (success/failure)

**D.V.** - Attitude change

**Manip** - Three weeks before experiment Ss saw four slide pictures for one minute each. Ss were given four minutes to write a story about the picture. Stories were analyzed for n influence utilizing Uleman's protocols by two coders working independently without knowledge of the purpose of the study. Ss reported individually to the Communication Research Laboratory at Illinois State Univ. Control Ss were taken immediately to a room where they filled out the attitude measure. Experimental Ss entered a control room equipped with a one-way mirror which enabled S to see audience. Ss were given a pretested (on a random sample of Ss from the same population) counterattitudinal topic and informed audience was chosen because it was strongly opposed to the topic. S was instructed to give a speech which would convince audience to change their minds. S was informed that a light panel in front of her would have a green light if she was successful and a red light if unsuccessful. Ss gave name, I.D. number, and major at beginning of speech. Ss were given choice to participate -- 13 declined to participate, 8 high n influence and 5 low n influence. Ss were given time to prepare speech, gave it over loudspeaker. Ss in success group received 4 green lights and 1 red light from the five members of the audience. Ss in failure group received 5 red lights. S completed attitude measure and debriefed.

**Topic** - The Federal government should have the power to control family size.

**Results** - H, sig.
in study. Upon arrival Ss were given a questionnaire to fill out by E. As they began to fill it out E2 entered who asked them to write belief-discrepant essays for 50¢ ($2.50) which would be used as program materials on campus radio station. Ss were also told that in order to determine the most persuasive essays, students in the next room would read the essay and report how much it persuaded them. Ss then completed questionnaire which included important attitude measures towards its end. After completion Ss were given 10 minutes in which to write their essays. Essays were taken down the hall where bogus feedback was put on them. Ss participated in discussion which was taped during time that they waited for their essays. In success condition comments such as "Your arguments were very strong and they really changed my mind" were put on the essays. In the failure condition comments read, "You didn't convince me at all" etc. Essays with comments were returned to Ss who were given two minutes to look over them. Ss returned essays and completed post-experimental questionnaire.

Topic - In favor of eliminating student draft deferments.

Results -
Hyp. 1: n.s.
Hyp. 2: predicted interaction between n influence and feedback in predicted direction but not sig. at .05 level.
Hyp. 4: sig. interaction between n influence and incentive levels but differed from that predicted. High n influence/high incentive Ss and Low n influence/low incentive Ss used relatively fewer first person pronouns -- may indicate relatively more stress for Ss in these conditions.
Hyp. 5: n.s.
Hyp. 6: no sig. main effects as in 4 but sig. interaction n influence x incentive with High n influence/ high Incentive and Low n influence/low Incentive Ss making more crossouts and insertions per total words.
Hyp. 3: not reported in Speech Monograph article.

1. Persons with high levels of role skill or role aptitude will show greater attitude change in the direction of role enactment than will persons with low levels of role aptitude.

2. Persons who perceive a particular role enactment they have performed to be convincing or credible will show greater attitude change in the direction of role enactment than will persons who view their own performance as relatively unconvincing.

3. Possession of large amounts of information relevant to the enactment of a particular role should produce increased positive valuation of one's own ability to produce a convincing role enactment. Such increases in self-perceived competence to enact a particular role should be positively related to one's evaluation of his performance after he has given it. These positive valuations should, in turn, produce greater change in the direction of the role enactment.

4. External incentives offered for role enactment should interact with persons' post-performance evaluation of their role enactment such that persons who feel "overpaid" or "underpaid" for their enactments should show relatively little attitude change, while persons who feel that the payment is consistent with their level of performance should show the most attitude change.

5. The valence of audience feedback should influence the amount of attitude change manifested by the actor such that when audience feedback is positive, he should show greater change. However, positive audience feedback will not produce change unless the actor himself perceives his role enactment as convincing. If a person views his performance as relatively unconvincing, positive feedback will be discounted and be ineffective in producing change.

6. When role involvement is high, self-perceived post-performance evaluation will be positively related to attitude change, i.e., under conditions of high involvement persons who see their performance as more convincing should show greater attitude change. Under conditions of low involvement, the positive relationship will not obtain.

7. Persons who show a decrement from pre-performance estimates
of how convincing their enactment will be to their post-performance estimates of how convincing their performance actually was will tend to show less attitude change than persons whose pre- and post-performance estimates are the same or increase from pre to post.

I.V. - Role involvement (high or low)
Post performance evaluation (Ss perception of his performance)

D.V. - Attitude change

Manip - Two experiments are reported which seek to test proposition 6 above. In Experiment 1 Ss were asked to make a counterattitudinal speech under conditions of low anonymity and high decision freedom. Speeches were video-taped and Ss understood that they might be used in a persuasion experiment. High involvement was operationalized by asking the S to include as many self-references as possible ("I think that ...", I believe that ..., etc.) Low involvement Ss did not receive these instructions.

In Experiment 2 Ss made the counterattitudinal speech under conditions of high anonymity and low decision freedom. Other procedures were similar to Exp. 1.

Topic - Exp. 1: Police should be allowed to search students' rooms without a search warrant.
Exp. 2: It is undesirable to have a yearly chest X-ray.

Results - Ss in high involvement condition used significantly more personal references in both experiments. There were no interaction effects between involvement and post-performance evaluation.

No S indicated a very positive evaluation of his performance.

There were no significant main effects for attitude change. Persons in the low-involvement not at all convincing group changed their attitudes more than other groups in Exp. 1.

Post-performance evaluation was somewhat negatively related to attitude change within the low involvement groups in both studies.

H - Given low incentive with high anonymity and no freedom of choice, persons who encode a counterattitudinal message which they perceive has undesired consequences will demonstrate more attitude change in the direction of the message.

I.V. - Persuasiveness (number of audience members persuaded - 2 or 8 out of 10)
Incentive (5¢ or 15¢ for each person persuaded)

D.V. - Attitude change

Manip - Ss were high school students who had been pretested five weeks earlier. Each S was called on the telephone, asked to participate and instructed to come to the school's religious centre. E led the student to the experimental room where they were asked to make a counterattitudinal speech which would be heard by a live audience which they could not see but would listen to them over a loudspeaker. Ss were informed that after the speech the audience members would indicate by a series of lights if they were persuaded or not. Ss were left alone to prepare their speeches. Ss in low incentive group were told they would receive 5¢ for each member persuaded. Ss in high incentive group would receive 15¢. E returned when S indicated he was ready. Ss gave speech after which the lights on the panel were activated. Ss were led to believe they had persuaded 8 (2) members of the audience. Ss filled out an evaluation form for E indicating how hard the audience was to persuade, how successful they had been, how enjoyable the task was, and how likely the S was to participate in a study like this again. Ss then went down hall to office of Campus minister (E2) where they completed an attitude questionnaire. Ss were debriefed.

Topic - Persons who say they do not believe in God should not be allowed to run for a political office.

Results - There was a significant reinforcement effect. Persons in the high incentive group showed more attitude change than persons in the low incentive group.

The initial incentive had a greater effect than did the final amount of payoff.

Remarks - Berger mentions another unpublished study run under conditions of low anonymity and high decision freedom in which the same
results were found. (Berger, Charles. A re-evaluation of the role of undesirable consequences in the arousal of cognitive dissonance. Unpublished manuscript, Dept. of Psychology, Illinois State University, 1971).
Blum, Michael and Wright, Jack M. Degree of effort and attitude change under forced compliance. *Psychonomic Science*, 1964, 1, 67-68.

H - The degree of effort in discrepant role verbalization as perceived by S, relates to the degree of subsequent attitude change. Discrepant Ss who feel that they have performed with high effort should change more toward the position advocated by the essays than those perceiving low effort in their performance.

I.V. - Effort (high or low expenditure as perceived by S) Discrepant feelings (moderate or high as perceived by A)

D.V. - Attitude change.

Manip - Ss took pretest, then given 20 minutes to write counter-attitudinal essay after which they were asked to rate degree of effort they had expended in writing the essays.

Six graphic rating scales were used focusing on strength of effort, amount of concentration, number of significant points made, interest in the task, objectivity and difficulty in understanding the task.

Topic - Censorship

Results - Sig.

Probs - Independent variables were assessed by self-report by the Ss and not manipulated by E. (N = 37)

H
- Persons encoding counterattitudinal communications under conditions of free choice will demonstrate greater attitude change in the direction of the position taken in the communication than persons encoding counterattitudinal communications under conditions of no choice.

Attitude change in the direction of the position taken in the counterattitudinal communication will be greatest when the communication is encoded for an uncommitted audience under conditions of free choice.

Attitude change in the direction of the position taken in the counterattitudinal communication will be least when the communication is encoded for a committed audience under conditions of no choice.

I.V. - Choice (free choice - no choice)
Audience attitude (committed - uncommitted)

D.V. - Attitude change
Manip - Ss who had completed a pretest to determine experimental topic were asked to write a counterattitudinal essay. In the free choice condition Ss were informed of their freedom not to comply. Ss in the committed audience condition were told that the essays would be presented to an audience consisting of individuals who, "on the basis of a previous questionnaire, had attitudes consistent with those advocated by the subjects."

Topic - Mandatory on-campus residency.
Prob - Choice manipulation was not effective.
Results - Choice - n.s.; audience attitude - sig.

H - Persons coding counterattitudinal messages directed toward an uncommitted audience will demonstrate greater attitude change in the counterattitudinal direction than persons encoding counterattitudinal messages directed toward a committed audience.

Persons encoding counterattitudinal messages under conditions of free choice will demonstrate greater attitude change in the counterattitudinal direction than persons encoding counterattitudinal messages under no choice conditions.

I.V. - Audience commitment
Choice

D.V. - Attitude change

Manip - Two weeks after administration of the pretest Ss were induced to write a counterattitudinal message. ½ Ss were informed that the highschool students who would receive the message were "generally undecided on" the issue. ½ Ss were told that the audience to receive the message were "generally favorable" towards the topic. ½ Ss were given the choice (no choice) to write the essay. Ss wrote for 15 minutes and then completed the post-encoding questionnaire.

Topic - Mandatory on-campus housing.

Results - $H_1$ - sig.

$H_2$ - not sig.

Should be noted that in Nel, et. al. study Ss were given major arguments on experimental issue. In this study Ss created own arguments.

H - (No hypothesis is given since study seeks to compare dissonance theory and social judgment-involvement theory). "In sum, these conflicting theoretic positions served as a basis for the present investigation. If the reasoning is valid, then hypotheses are inappropriate since the research hypothesis relevant to one theoretic position would be the null for the other. Therefore, this investigation was designed to answer the following questions: (1) Which theory -- cognitive dissonance or social judgment-involvement -- explains attitude change demonstrated by highly involved/high dissonance subjects engaging in counterattitudinal advocacy? (2) Which theory explains attitude change demonstrated by lowly involved/low dissonance subjects engaged in counterattitudinal advocacy?"

I.V. - Degree of involvement

D.V. - Attitude change

Manip - Two weeks after completing pretest Ss were induced to write a belief discrepant essay. Ss were divided as to degree of involvement. Highly involved Ss were those who had a minimum latency of rejection of 16 and a maximum latency of accept- ance of 4. Low involved students had a latency of rejection no greater than 8. Ss were given 15 minutes to write their essays. Then completed a post-encoding questionnaire.

Topic - Compulsory on-campus residence for all students.

Results - Highly involved Ss significantly increased their latitudes of acceptance after performing the belief-discrepant task. They also significantly decreased their latitudes of rejection.

Low involved subjects significantly changed their most acceptable position but did not change significantly their latitudes of noncommitment, rejection, or acceptance.

Results offer support for prediction from a social judgment-involvement position.

**H**
- Grades will serve to affect behavior in the form of a reinforcing contingency. More specifically, a "good grade" should serve to effect repetition of the responses which it followed, while a "poor" grade should produce reduction in the potentiality of appearance of the preceding responses.

**I.V.**
- Grades (A - D - no grade)

**D.V.**
- Attitude change

**Manip**
- Six weeks after completing a 40-item attitude questionnaire, Ss were asked to write essays on particular assigned topics. Scores on the attitude scales determined the topic which was assigned. Ss individually were asked to write supporting the position opposite to that indicated by his pretest score. Grades were assigned randomly to the essays. 1/3 Ss received A's, 1/3 received D's, while 1/3 were given no grades. The last group was informed that there was insufficient time to finish grading the papers. Ss were asked to indicate their satisfaction with the essays and completed the attitude questionnaire again.

**Topic**
- One of four depending upon Ss score: federal aid to education, legalized gambling, capital punishment, and socialized medicine. Scales for federal aid to education and capital punishment dropped because of lack of reliability.

**Results**
- Sig.

It is apparent that no difference in satisfaction with their essays appears for those who received a poor grade and those who were given no grade.

H - When a person feels that he had little choice in carrying out discrepant behavior, little dissonance should be produced and confrontation with the implications of his action should bring heightened resistance to revaluation.

Under conditions where an individual feels it was entirely up to him whether or not he carried out the contrary behavior, dissonance should be produced; the more confrontation, the more the dissonance and subsequent attitude change in line with the discrepant behavior in order to reduce that dissonance.

I.V. - Choice (High - Low)
Confrontation (High - Low)

D.V. - Attitude change

Manip - Ss wrote a counterattitudinal essay. Ss in high choice condition were told that they were under no obligation to write the essay and each S was asked individually if he still desired to participate. Low choice Ss were given no alternative. Ss in high confrontation condition were instructed to rewrite entire essay re-ordering sentences on basis of their "originality and persuasiveness". Low confrontation Ss copied essays over listing every word of essay on basis of number of syllables it contained.

Topic - Why I want to join the Catholic Church.

Results - Choice - sig.
Confrontation - n.s.

H - When a person is induced to take a stand contrary to his opinion, the tendency to perceive other's opinions as closer to his own will be greater, the less the justification offered.

I.V. - Justification (reasons for participation - no reasons)
Social comparison (majority other agree - majority disagree)

D.V. - Recall of others opinions

Manip - Ss asked to look through cards of 'past respondents' either favorable or unfavorable to topic. Card file contained 96 cards with all but 5 favorable or unfavorable. Ss asked to record names of p.r.'s they thought they knew and then write a counterattitudinal essay. After copying title and names, E intervened to give justification manipulation, S then rated opinion and % of p.r.'s agreeing or disagreeing with essay before writing essay.

Topic - Increase of tuition by $10.00 a credit.

Results - sig.

Probs - manipulation of justification.

H - Counterattitudinal encoding will result in a decrease in the level of language intensity from that obtained under belief-congruent conditions.

Given counterattitudinal encoding, source attitude change varies directly with the magnitude of difference between prior attitude and assertion intensity.

I.V. - Language intensity (high - medium - low)

D.V. - Attitude change

Manip - Exp. I - Ss were given a message with 'blanked spaces' and a list of words of varying intensity. One half of the Ss were instructed to construct a belief-discrepant message while the other half constructed a belief-congruent message.

Exp. II - Ss were randomly assigned to three groups. Each group received the same message with blanked spaces. Grp. I received words of high intensity to be inserted in the blanks. Grp. II received words of moderate intensity. Grp. III received words of low intensity. Ss were asked to prepare a belief-discrepant message.

Topic - Mandatory on-campus housing.

Results - Sig.

H - Persons who encode a counterattitudinal message will use language of significantly lower intensity than persons who encode a belief-congruent message.

Given counterattitudinal advocacy by people with similar prior attitudes, the magnitude of attitude change varies directly with the intensity of the counterattitudinal assertion.

I.V. - Language intensity
D.V. - Attitude change
Manip - Same procedure as in Burgoon dissertation
Topic - Mandatory on-campus housing
Results - $H_1$ supported
$H_2$ supported
Burgoon, Michael, Miller, Gerald R., and Tubbs, Stewart L. Machiavel- 
lianism, justification, and attitude change following counter- 
attitudinal advocacy. *Journal of Personality and Social Psychology*, 

H - When counterattitudinal messages are prepared for an un- 
committed audience under conditions of low justification, 
low Machiavellians will report significantly greater self- 
persuasion than high Machiavellians; but when messages are 
prepared under conditions of high justification, high 
Machiavellians will report significantly greater self- 
persuasion than low Machiavellians.

I.V. - Machiavellianism (high - low) 
Justification (high - low)

D.V. - Attitude change

Manip - Nine weeks after completing an attitude questionnaire, Ss 
were asked to write counterattitudinal essays. Ss were 
divided on the basis of their scores on a 23 item Machiavel- 
lian test (High Mach - scored 100 - 160; Low Mach scored 
40 - 100). Ss were asked to write essay for an uncommitted 
audience and were told they would receive 1 (5) extra grade 
points from their professor for their participation. Control 
group Ss only completed the attitude measurement scales. Ss 
were assigned to experimental conditions as intact groups 
(classrooms).

Topic - Abolishment of student draft deferments.

Results - Significant interaction effect as predicted.

**H** - Persons engaged in face-to-face confrontation (role playing) will show a negative relationship between money offered for the role playing and attitude change. Subjects writing counterattitudinal essays will show a positive relationship between attitude change and money offered for writing the essay.

**I.V.** - Type of role play (face-to-face - essay)

**D.V.** - Attitude change

**Manip** - Ss performed a dull task, then either role played in a face-to-face confrontation with 'the next S' (confederate) or wrote an essay on how enjoyable, exciting, fun, and interesting was the task. Ss then proceeded to a new E who administered the post-test.

**Probs** - Face-to-face was two minutes and essay was 15 minutes guilt suspicion more likely in face-to-face quality of performance checked

**Topic** - Dull task

**Results** - sig.

H - Changes in attitude (affect) result from altering perceptions of the attitude object (situation or event) as leading to the attainment of valued goals.

Attitude change is generalized to related issues.

The degree of generalization is a function of the similarity of attitude objects or situations.

I.V. - Values

D.V. - Attitude change

Manip - Ss wrote counterattitudinal essays as a "Test of Objectivity" as a class assignment. Several days later they heard a lecture on the topic. The essay and the lecture asked the student to relate a value for equality, increased national prestige, with an event which was counterattitudinal.

Topic - Allowing Negroes to move into white neighbourhoods.

Prob - Carlson utilized a Guttmann type measuring instrument. He notes that attitude change was discovered only in Ss of moderate attitudes whereas change on the extremes of the scale were not discernable with his measuring method.

Results - $H_3$ was not confirmed. Hypotheses 1 and 2 were confirmed.

H - Attitude change is in an inverse relationship to the amount of justification offered for a counterattitudinal endorsement.

I.V. - Justification (50¢, $1.00, $5.00, $10.00)

D.V. - Attitude change

Manip - Ss were approached in their dormitory rooms by E who explained that the "Institute of Human Relations" was concerned about recent riots on the Yale campus. The Institute was collecting arguments on both sides of the issue and asked the S to write an essay favoring only one side. E paused for the S to give a verbal statement of his views. S was then asked to write a counterattitudinal essay for X money. "All groups were told that the decision to write the essay was entirely their own choice." After Ss wrote essay the postmeasures were given. Ss asked questions to check manipulations.

Topic - "Why the New Haven Police Actions Were Justified."

Probs - An after-only design.

Results - Sig. (No sig. difference in attitude change between the $10.00, $5.00 and control group. Sig. difference between both the $1.00 and 50¢ groups and control group and between the 50¢ and $1.00 group.)

H - With the discrepant expression and reasons for not making it held constant, the greater is the justification for making such a discrepant expression, the less will be the magnitude of dissonance and consequent attitude change.

I.V. - Justification (verbal reasons for taking a view discrepant with one's private opinion - no reasons given).

D.V. - Attitude change.

Manip - After completing a premeasure Ss were asked to write a counterattitudinal essay. One-half Ss were given verbal reasons why they should write the essay ("help me, help science, etc."). Ss wrote essay and completed a post-measure.

Topic - Yale should become coeducational.

Probs - Extreme scores were eliminated.
Quality of essays checked - conflicting findings
81 Ss out of 124 were eliminated from data. (65% of Ss) Group receiving low justification contained more upper classmen than group receiving the high justification.

Results - sig.

H - The more equal the distribution of relevant attributes consistent with choosing each alternative (the higher the choice), the greater the dissonance and consequent attitude change in line with one's discrepant commitment.

I.V. - Choice (S given the "illusion" that he had free choice to refuse - S given no choice)

D.V. - Attitude change

Manip - Ss contacted in their dormitory rooms for premeasure. Second E approached Ss three weeks later in their rooms asking them to make a statement which was counterattitudinal which would be presented to the Chicago Alumni Board. One half the subjects given the "illusion" (p.89) that they had the choice to refuse while the other half of the Ss were confronted with the microphone of the tape recorder and instructed to begin their speech. Ss gave his name, address, and class before beginning speech. After finishing speech Ss filled out postquestionnaire.

Topic - In favor of the establishment of a compulsory religion course at Yale.

Results - Results in the predicted direction but not sig. By splitting change at exact median and using a Chi Square significance is obtained. This done because a few extreme change scores in low choice condition reduced significance of the differences between conditions.

Probs - E argued with the S who appeared to be refusing to participate. "... the experimenter reopened the issue (of the subject's participating by giving a speech in favor of the proposal) every time the subject appeared to be vacillating and on the edge of refusal. In this manner the experimenter and subject sometimes 'argued' back and forth as much as three times, but in all cases agreement was finally reached" (p.89).

H - Replication of SFC II utilizing hypotheses of previous study.

I.V. - III Type of essay (truthful - persuasive)
S alone - Ss in dyads
Inducement (prizes: high - low)

VIII Commitment (public - private)
Inducement (financial: 25¢ - $1.50)
Instructions (truthful essay - persuasive essay)

D.V. - Attitude change

Manip - Ss listened to four selections of electronic music (Ss junior high school students) took a break during which E asked the S to write an essay, after S wrote essay, he then rated four more selections of music. (Method section of this paper very sketchy.)

VIII: Ss were teenagers recruited for an unspecified job and paid $2.00. Ss listened to four selections of electronic music, took a break during which E asked S to write an essay for 25¢ or $1.50. One half of Ss were given instructions to make their essays as truthful as possible while the other half were asked to make their essays persuasive. One half of Ss in each inducement condition were also asked to put name, school and homeroom on essay and assured that it would be read by personal acquaintances. The other half of the Ss were assured that only E would see essay and not be able to tell who wrote them.

Topic - Electronic music is superior to popular music.

Results - III: N.S. Inducement approached sig. (.08) with low inducement Ss more proattitudinal than high inducement Ss. Choice manipulation highly significant. Main effects not sig. for Ss run in dyads. Sig. inducement effect in positive effect in persuasive condition but this did not extend to more improvisation, higher quality essays, or more effort.

VIII: High inducement Ss show more attitude change than low inducement Ss. Ss given persuasive instructions were judged to have written significantly more favorable essays than Ss given truthful instructions. Non-compliers still show sig. more attitude change when given a high inducement than a low inducement. High inducement Ss do more improvising than low.

H - Persons who make a counterattitudinal endorsement so that they are publicly committed to that endorsement for a minimum amount of justification will show more attitude change in the direction of the belief-discrepant position than persons who make the endorsement privately or for maximum justification.

I.V. - Justification (50¢ - $5.00)
Commitment (Public - anonymous)

D.V. - Attitude change

Manip - High school students who volunteered for 'work' in return for $2.50 viewed and rated the same set of slides eleven times. During a break they were approached in groups of five or six by another experimenter who asked them to write essays for 50¢ ($5.00) on the good things (how exciting, interesting and value as works of art) about the slides. One half of the Ss were told that their essays would be read by other local high school students who would be preparing to view the slides. These Ss were given paper with blanks for their name, high school, and address and the heading: "I have participated in the picture judging experiment and the following essay describes my feelings about the pictures." The other half of the Ss were told that only the E would see their essays. Their paper contained the heading but no space for name, etc. Ss then returned to the large room to write their essays, complete the post-test, etc. Choice was held constant across all conditions.

Topic - The good qualities of the slides used in the experiment.

Results - n.s.

Disc - Collins discounts the commitment hypothesis and opts for either an aversive effects theoretical rationale to explain attitude change or Kelley's version of attribution theory.

Probs - Study utilized a stress manipulation which is reported elsewhere but included in the analysis of variance (4 way ANOVA - stress x financial inducement x commitment x pretest). Commitment manipulation was ineffective.
Persons making a counterattitudinal endorsement under conditions of low justification will show more attitude change in the direction of the counterattitudinal message than persons receiving high justification for such an act.

Persons encoding a counterattitudinal message under conditions of free choice will show more attitude change in the direction of the message than persons who encode the message under conditions of no choice.

Exp. 2 & 3: Persons who encode a counterattitudinal message which they perceive as having disadvantageous consequences for themselves and others will show more attitude change in the direction of the message than persons who perceive that the message will have no objective consequences for themselves or others.

I.V. - Exp. 1: Justification (50¢ - $2.00)
Choice (High - Low)
Exp. 2: added - Consequences (Essay used by policy making committee with possible influence upon committee - essay judged only for grammar, organization, etc.)
Exp. 3: Same as study 2 with manipulation checks and run during middle of quarter (Study 2 run at end of academic quarter).

D.V. - Attitude change in all three studies.

Manip - Exp. 1: an exact replication of Linder, Cooper & Jones (1967)
Exp. 2: ½ Ss received same instructions as Linder, et. al. while the other half Ss were informed that their essays would have no objective consequences and would be considered only in terms of style.
Exp. 3: same as Exp. 2.

Topic - Exp. 1 - 2 - 3: All students in California State Universities should be charged a $1500 tuition per year.

Results - 1: Partially supported Linder, et. al. (of two attitude scale measures relating to the topic the second showed a sig. F (p. = .025) and combined with the first an F
sig. at .05 level, the first item by itself was in the right direction but not sig.)
2: n.s.
3: Consequences x inducement interaction - sig.
   Inducement effect (just.) - sig.
These on first attitude item, however, on second item there was no sig. effects (Second item sig. on exp. 1).

- Persons making a counterattitudinal endorsement under conditions of low justification will show more attitude change in the direction of the counterattitudinal message than persons receiving high justification for such an act.

Persons encoding a counterattitudinal message under conditions of free choice will show more attitude change in the direction of the message than persons who encode the message under conditions of no choice.

Persons who encode a counterattitudinal message which they perceive will have disadvantageous consequences for themselves and others will show more attitude change in the direction of the message than persons who perceive that the message will have no object consequences for themselves or others.

I.V. - Exp. 1-3: Justification (50¢ - $5.00)
Exp. 4: choice
Exp. 5-6: consequences (See Collins & Ashmore, 1968, exp's. 2 & 3).
Choice

D.V. - Attitude change

Manip - Exp. 1: Ss were offered a low inducement (50¢) or a high inducement for performing a counterattitudinal act. When Ss reported to E1, he informed them he was running behind schedule. S was told E2 needed people to help him out. A high choice manipulation similar to Linder, et. al., (1967) was utilized. Ss reported to E2 who placed earphones on their heads. Ss heard white noise while crossing out all 4's and 7's in a booklet of random digits. E2 then asked S to help him out with the next person in the study by telling that person that task was "fun, interesting, exciting, and enjoyable." Ss completed this task, returned to E1 who administered post-test questionnaire.

Exp. 2 & 3: Same as 1 with adjustments in speeches by E2 and experimental confederate (study 3).
Exp. 4, 5, & 6: See Collins and Ashmore, 1968.
Results - Failure to create dissonance effect with this experimental paradigm. In study 2 some incentive effect was found. Study 4 partially supported Linder, et. al., 1967.

In the 'consequence' formulation a high pressure minimizes the disquieting consequences of the counterattitudinal response -- the response is easy to rationalize if it is performed for a good reason. Therefore, high incentives should result in less attitude change.

From a 'process' perspective a high incentive may increase the vigor of the compliant response. If we add the assumption that the more vigorous responses produce more attitude change, then high incentives should produce more attitude change.

Justification (50¢ - $2.00)

Instructions

- Process - emphasized no one but Es would read essays, S asked not to sign name, Es looking for ideas to use in future studies.
- Consequence - Ss informed that persons in next study would do same things they had except before tasting each sample they would read the essay therefore the S was to try to write as persuasive an essay as possible, Ss instructed to sign name and address to essay, E reminded S before writing that essays would be used in an experiment next semester.

Attitude change.

Ss were paid $1.00 to participate in a study of taste discrimination. Ss rated liquid taste stimuli eight times and then took a break. During the break E asked the S to write an essay, emphasizing free choice, for varying amounts of justification and under different instructions (process - consequence). Ss were given ten minutes to write the essays before E asked them to continue the second series of eight liquid samplings.

How pleasant, exotic, non-bitter tasting were the liquids.

Ss in the process condition showed significantly more attitude change in the direction of the essay than those in the consequence condition. Ss in a control group fell between the two other groups and were not significantly different from either process or consequence Ss in attitude.
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change. Consequence Ss dissociate themselves from their essays more than process Ss (75% of the consequence essays contained cues that the S did not personally believe the essay compared to 1% of the process essays -- determined by judges rating essays blind as to condition).

Probs  - Financial incentives were negatively perceived by Ss (nursing school students).

H - In the high responsibility, high consequence, low inducement condition Ss will demonstrate significantly more attitude change than Ss in the other three low inducement conditions.

In the high responsibility, high consequence, low inducement condition Ss will demonstrate significantly more attitude change than Ss in all other experimental conditions (ignoring the low responsibility, low consequence, high inducement condition).

High financial inducement will facilitate attitude change under conditions of low responsibility and low consequences therefore Ss in this condition will demonstrate significantly more attitude change than Ss in all other experimental conditions (ignoring the high responsibility, high consequence, low inducement condition).

I.V. - Responsibility
Consequences (essay would/would not be used to establish univ. policy)
Inducement (50¢ - $2.50)

D.V. - Attitude change

Method - 103 male undergraduates who had previously returned a survey questionnaire indicating pro-visitation rights in dormitories, were visited in their dormitory rooms. Es proceeded door-to-door individually running Ss in a pre-assigned, randomly determined sequence of conditions. Ss were asked to write a counterattitudinal essay for 50¢ ($2.50) against open visitation rights for members of the opposite sex in dormitory rooms. ½ Ss were told essay would be used merely for the development of a historical report (low consequences). ½ Ss were told that essay would be used by administrators in deciding whether or not to make visitation a permanent dorm policy (high consequences). Upon receiving an affirmative response Ss were asked to sign a receipt indicating that he had chosen to write this essay and was responsible for its contents (high responsibility) or in no way responsible for its contents (low responsibility). Each S was allowed ten minutes to write his essay. Ss then filled out a questionnaire anonymously. Control Ss completed the post-test questionnaire. All Ss received a delayed measures questionnaire from the UCLA Housing Office two weeks later which approximately
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50% of the Ss completed and returned. Essays were judged for quality and persuasiveness by an independent judge who was not aware of hypotheses or conditions. No significant differences were discovered between experimental conditions in the quality of essays.

Topic - That UCLA should not institute a permanent policy of open visitation in dormitory rooms.

Results - $H_1$ - sig. dissonance effects in the predicted condition
$H_2$ - sig.
$H_3$ - sig.
Attitude change lasted for at least 14 days.

H - Making a speech that is discrepant with one's beliefs will, under the proper incentive conditions, arouse dissonance in subjects regardless of their level of self-esteem.

I.V. - Self-esteem
Incentive (50¢/$2.50)

D.V. - Attitude change

Manip - Ss were Princeton undergraduates who answered an advertisement in campus newspaper promising to pay $1.50 for two sessions of a "Personality Test Construction" study. At first session Ss completed a modified version of the CPI. Ss appeared individually for the second session. E from first session welcomed Ss, stated she would have to leave for a few moments to check why second test was late, and handed S an envelope containing his results from first test. S was urged to read through his results in E's absence. The feedback results were designed to create conditions of high self-esteem, neutral self-esteem and low self-esteem. After S had read results, E returned stating tests would be delayed. However she had just met a graduate student (E2) who needed another person to fill in for a subject who had not shown up. All Ss reported to office of E2. E2 asked Ss to make a counterattitudinal speech for 50¢ ($2.50). Ss were given free choice. S was allowed five minutes to prepare arguments, speech was video-taped, and S returned to E1. He completed a post-test questionnaire, two scales to measure effectiveness of the self-esteem manipulation, and a modified version of SEALAB II questionnaire. Ss were debriefed and paid $2.50. A control group completed the post-test attitude questionnaire.

Results - Self-esteem manipulation was effective.

Hypothesis was supported with a significant dissonance effect no matter the level of self-esteem.

H - Subjects whose behavior resulted in undesired consequences would tend to believe that the dull task was interesting as an inverse function of the amount of incentive they were offered. No such relationship was expected for subjects whose behavior did not lead to undesired consequences.

I.V. - Consequences (Accomplice convinced/accomplice unconvinced)
Incentive (½ hour additional credit/1 hour additional course credit)

D.V. - Attitude change

Manip - Ss were male undergraduates who took part in the experiment for ½ hour credit necessary for 5 hours of credit in a Psychology course. Ss reported to experimental room where they waited 5 minutes for E. E apologized for lateness and started S working on the dull task -- turning 48 square pegs ¼ turn using first right and then left hand. S continued until he had turned each of the pegs 5 times. When S finished E told him about study with instructions paralleling Festinger & Carlsmith. E asked S to serve as his confederate for ½ hour additional credit (1 hour additional credit). E then led S to room where experimental accomplice was waiting. S then told accomplice how enjoyable the task was with the result that ½ Ss convinced the accomplice (undesired consequences) and ½ Ss did not convince the accomplice. Ss proceeded to Psychology office where secretary gave them the post-test. Control subjects completed dull task, were told some people would hear a confederate tell them how enjoyable task was, and went to office to complete the post-test questionnaire.

Topic - How enjoyable the dull task really was.

Results - Significant difference in rating of enjoyment of task between control group and those in undesired consequences group.

A significant dissonance effect in incentive-undesired consequences condition.

No significant differences when subjects were unable to convince the experimental accomplice.

Low-incentive-convincing subjects were more willing to participate in a similar experiment again than either the low-incentive-not convinced subject, the high-incentive-not
convinced subjects, the high-incentive-convinced subjects, or the control group.

A significant main effect for undesired consequences group in the scientific importance of the study and the amount learned from the study.

H - If the effects of dissonance resolution are offset, over time, by the employment of alternative cognitive restructuring mechanisms, then Rosenberg could have obtained results opposite to those of Cohen because of the time lag between dissonance arousal and attitude measurement necessitated by his experimental procedure.

In the immediate measurement condition, results will favor dissonance theory expectations, i.e., Ss paid less will prove more favorable to the originally counterattitudinal position.

Given a time lag between arousal and measurement, results consistent with Rosenberg's reinforcement position are expected.

I.V. - Justification (50¢ - $5.00)
Time of attitude measurement (immediately after dissonance arousal - 15 to 20 minutes after dissonance arousal).

D.V. - Attitude change

Manip - Ss were run in groups according to incentive offered (50¢ - $5.00). Ss were asked to write a counterattitudinal essay. Upon completing his essay, each S was given a 21 page booklet, the first page of which (last page for Ss in delayed measurement condition) contained an eight-item questionnaire. The other pages of the booklet contained 20 incomplete line drawings, one per page. Ss were instructed to complete each "as realistically and creatively" as possible spending approximately one minute on each picture. After completing drawings Ss were paid, debriefed, and allowed to leave.

Topic - In favor of withdrawing draft deferments for college students.

Results - Sig. Under immediate measurement Ss receiving low just. were more favorable to the counterattitudinal message while under delayed measurement there was a sig. incentive effect.

**H** - A role-playing experience involving favorable attitudes toward integration of Negro and white housing results in favorable modification of the pertinent specific attitude, and to a lesser degree, in a more favorable generalized attitude toward the Negro.

The degree of favorable change resulting from the psycho-drama is greater among participants than among observers.

The degree of favorable change in attitude toward housing integration is greater among low "authoritarian" Ss than among high "authoritarian" Ss.

**I.V.** - Type of role play (participant - observer)

**D.V.** - Attitude change

**Manip** - Ss who had been pretested to assess their attitudes towards integrated housing were randomly assigned to experimental and control groups. Ss were students at a community junior college. Two weeks after the pretest Ss either participated in or watched (observed) a role play in which an educational program to assure the integration of Negroes into a growing community was planned by participants. The posttest measures were administered seven to ten days later as a class exercise.

**Topic** - The development of a community educational program to minimize the danger of segregating new Negro families from the community and integrating them into White neighborhoods.

**Results** - Sig. for all three hypotheses.

H - Dissonance reduction takes time and takes work. It may make no difference when this work is done -- before or after the decision. If the person has spent time and effort considering specific details about the alternatives before the decision, then dissonance reduction may proceed rapidly. If he has not done so before the decision, then he must spend the time to do it afterward, and hence dissonance reduction proceeds more slowly.

I.V. - Time of measurement (immediate - delayed)
Pre-decision familiarity (low - high)

D.V. - Attitude change (rating of attractiveness of other person)

Manip - Ss were contacted by telephone and paid $2.00 to participate in study. Ss were informed that they were being invited in pairs. When they arrived they were ushered into a small room where they listened to a (bogus) conversation between E and another S. S was then asked to read an evaluation of person in other room because study is to see how the other person will react to it. S induced to read negative evaluation. S given free choice to reau message. In low-pre-decision condition S filled out personality questionnaire about himself before reading. In high-pre-decision familiarity condition S filled out questionnaire about the other person. In immediate meas. condition S was handed questionnaire to determine how well he liked other person immediately after reading neg. evaluation. In delayed-measurement condition S waited 8 minutes by performing an interpolated activity before filling out questionnaire.

Topic - Negative evaluation of stimulus person.

Results - Ss in low pre-decision familiarity/immediate measure rated the SP significantly higher than Ss in other three conditions.

H - Persons who are told that a message which they have encoded counterattitudinally is persuasive will show more attitude change in the direction of the message than persons who are told their message is not persuasive.

Persons with high self esteem will show more attitude change when told their message is very persuasive than when told their message is not persuasive. Persons with low self esteem will show more attitude change when told their message is not persuasive than when they are told their message is very persuasive.

There will be an interaction effect between sex and self esteem.

I.V. - Self esteem (high, moderate, low)
Feedback (message is very persuasive vs. message is not persuasive)

D.V. - Attitude change

Manip - Ss who had been measured for self esteem were assigned to high, moderate, or low self esteem. ½ Ss were assigned randomly to positive feedback condition. ½ Ss were assigned to the negative feedback condition. Ss were asked to make a counterattitudinal statement which was recorded on video tape supposedly for playback at a later time to their fellow students.

Results - The predicted main effect for dissonance -- more attitude change in the persuasive message than non-persuasive message -- was supported.

There was a significant interaction effect between sex and level of self esteem.

Prediction of greater change for HSE Ss in the persuasive message condition was not supported. The difference is significant for females but in the opposite direction for males.

H - The ability to imagine oneself vividly as holding an attitude different from one's own would result in greater attitude change under conditions of overt role playing.

I.V. - Role play (overt - non-overt or passive)
Fantasy score

D.V. - Attitude change

Manip - S read statistics and reasons for not smoking. S's tested in dyads with one person assigned to role play. Roles included playing a person who has given up smoking giving an interview and telling a friend why he should give up smoking. The non-role player simply listed the arguments used by the role player. All Ss attitudes were assessed immediately after manipulation and again three weeks later.

Topic - Why a person should give up smoking.

Results - A measure of empathic fantasy ability was positively related to susceptibility to attitude change. This understood as the fantasy ability which permits one to make cognitive contact with new attitudes in contrast to other fantasy abilities requiring the ability to imagine incentives.
Elms, Alan and Janis, I. L. Counter norm attitudes induced by consonant versus dissonant conditions of role playing. *Journal of Experimental Research in Personality*, 1965, 1, 50-60.

**H** - With positive sponsorship, a large monetary reward will have a predominantly positive incentive effect and thus make for an increase in the amount of attitude change; whereas with negative sponsorship, a large reward will tend to induce guilt, suspicion, or other negative effects that would give rise to interfering responses during the role-playing performance and therefore lead to less attitude change.

**I.V.** - Type of role playing (overt - non-overt)
   - Sponsorship (negative - positive)
   - Justification (50¢ - $10.00)

**D.V.** - Attitude change

**Manip** - Ss who completed an initial pretest towards a new proposal that students in U.S. be sent to Soviet Russia to take 4 years of college were then asked by (a private firm hired by the Russian embassy) or (a private firm hired by the U.S. State Dept.) to help in preparing arguments for a pamphlet to be used in assessing student opinion on the subject. Ss were induced to write arguments for either 50¢ or $10.00. Overt role playing Ss were given four questions to think about and allowed to write for five minutes. Non-overt role players were asked for their commitment, given the four questions, but before writing arguments asked to complete the posttest questionnaire. The posttest questionnaire was distinguished from the first by stating that it would be used along with their arguments in the initial survey of student opinion. Anonymity was assured in all experimental groups.

**Topic** - The feasibility of sending U.S. students to Russia for four years of university training.

**Results** - Sig. most attitude change found in the large incentive-positive sponsorship, overt role playing condition.

**Props** - Examination of essays for quality does not support the biased scanning argument of incentive theorists. No indication that the pretest was separated from the role play manipulation or post-test by any appreciable period of time. Separation was made orally by the E. See Brehm's (1965) criticism.

H - Role players and observers assigned to play or observe a role compatible with their prior attitudes on a particular issue will generally have a more favorable response to the role playing experience than will those role players and observers assigned to play or observe a role incompatible with their prior attitude.

Attitude change as a consequence of role playing will be differentiated on the basis of the relationship of the position of the role assigned to the subject's prior position on the issue. Specifically: if the S's prior attitude and role playing experience are compatible any attitude change will be in the direction of the prior attitude to a more extreme position with no broadening of awareness. If the S's prior attitude is opposite that of the role play there will be attitude change in the direction of a more moderate point of view.

Changes in attitude will be dependent more on the relationship of the subject's prior attitude to the position of the role than it will be dependent upon the strength with which his attitude is held before role playing.

Role playing will have a more favorable general reaction to the role-playing experience than will observers. Attitude change for observers will be in the same direction as for players, but of less magnitude.

I.V. - Role play (passive - active) Prior attitude (congruent - incongruent)

D.V. - Attitude change

Manip - S's completed a Sherif type 'latitude of acceptance - rejection' questionnaire giving them nine possible positions concerning right to work laws. ½ S's role played (observed) a role which was similar to their own attitude (fell within their latitude of acceptance) while the other ½ played (observed) a role which fell within their latitude of rejection. S's who were neutral on the topic were divided equally between the two experimental groups and served as a control group. The role play situation represented an informal conversation between the president of a medium-size manufacturing company and the business agent of a union representing 2/3 of the employees. Inserted in the
Elbing - ii

description of each role were the most pertinent arguments for a union shop agreement on the next contract. Ss were seniors taking a course on Human Relations in Industry.

Topic - Right to work laws

Results - Hyp. I is supported. General support for Hyp. II. 1/3 of each group (compatible role - incompatible role) showed no change. Among all Ss those in compatible role moved toward more extreme positions in direction of prior attitude while those in incompatible role moved toward a more moderate position (p = .0005). Hyp. III supported - congruency of role play more important than strength of prior position. Hyp. IV not supported - may have been caused by instructions given to observers. Elbing feels instructions may have sensitized Ss to desired outcome of role play. Elbing suggests that by assigning observers to roles (management - union steward) he assured extreme changes in observer attitudes.
Opinion change scores would show an interaction effect between Mach score and dissonance condition. Low Mach scorers will show the most attitude change in the role playing condition.

I.V. - Machiavellian scores
Role play (discrepant role play vs. non-role play)

D.V. - Attitude change

Manip - Ss were 80 males who had completed two Machiavelli scales -- Mach IV and Mach V -- plus a Likert type measure of opinions on controversial topics. All Ss were divided into low Mach or high Mach groups and all were pro-fluoridated water. Ss were randomly assigned to role play/non-role play condition. ½ Ss were told sponsor was the American Association for Advancement of Science while other ½ were told sponsor was National Committee Against Fluoridation. Sponsorship manipulation did not prove effective. Ss were contacted by telephone, asked to participate in a planned radio discussion on a specific topic or topics. All Ss told they were to be paid $2.00 for participation. When Ss appeared for interview they were told discussion was to be tape recorded and subsequently sold to small radio stations across the country. E handed S booklet with notation of sponsorship and a brief one page statement giving arguments against fluoridation. S received his money. Ss in role play condition improvised their speech which was tape recorded. Ss in non-role play condition simply read the brief. Post measure was taken.

Topic - Against the fluoridation of drinking water.

Results - There was a significant interaction effect between Mach scores and role play condition. There was no significant difference between the two groups as to their liking for the task. High Machiavellians changed more in the non-role playing condition while low Machs changed most in the role play condition.

Speeches were judged for effectiveness with no significant difference between the two groups.

Probs - The sponsorship manipulation did not work and was dropped from the study report.

H - Persons who score low on the Mach scale will change their attitudes in the direction of a counterattitudinal endorsement when they perceive they have been successful with their arguments.

I.V. - Machiavellianism Reinforcement (winning or losing a debate)

D.V. - Attitude change

Manip - 58 undergraduate males were classified according to their Mach IV and V scores. Two subjects debated each other twice (in alternate rounds) and served as cojudges for two debates. A free choice dissonance manipulation was used to induce each S to make a counterattitudinal debate. The second debate was on a position the S privately endorsed. A pre-test and post-test measurement were used.

Results - Low Machs showed a dissonance effect. High Machs did not show such an effect. The effect for lows occurred when the debater believed he had won but not when he guessed he had lost. Low Machs also showed significant attitude change on the consonant topic by endorsing the position they had held more strongly.

H - One would expect to observe some opinion change after a person has been forced or induced to say something contrary to his private opinion. Furthermore, since the pressure to reduce dissonance will be a function of the magnitude of dissonance, the observed opinion change should be greatest when the pressure used to elicit the overt behavior is just sufficient to do it.

I.V. - Justification ($1.00 - $20.00 - control)

D.V. - Attitude change

Manip - Ss were informed during the first week of intro. psych. course of requirement to participate in an experiment and study psych. dept. was making of experiments conducted by dept. Ss signed up for a two-hour exp. on 'measures of performance' during which for one hour he put 12 spools on a board, emptied it, refilled, etc. and worked for another ½ hour at turning 48 pegs one-quarter turn at a time. S was then 'debriefed' during which he was told about “Group B” who were met by a confederate who told them how exciting the task was before they performed it. Ss were hired to take place of absent confederate for $1.00 ($20.00). Control group went immediately to psych. dept. interviewer. Experimental Ss were introduced to 'next subject' (E. confederate) with whom the S spoke for two minutes during which he tried to convince her the task was exciting, enjoyable, etc. At end of two minutes S was taken to psych. dept. interviewer who administered the post experimental questionnaire.

Topic - How fun, exciting, enjoyable was the dull task.

Results - Sig.

Probs - Bribe connotation in $20.00 condition (Janis & Gilmore, 1965)
Suspicion of E's motives (Janis & Gilmore, 1965)
Incredulity of reward (Chapanis & Chapanis, 1964)

Exp. I: The person's knowledge that he is willingly doing an unpleasant task is dissonant with the knowledge that it is unpleasant, since people do not generally do things they find unpleasant unless there is some reason. One way in which the dissonance may be reduced is to consider the task less unpleasant. There is nothing dissonant about willingly performing a pleasant task. Thus, the more dissonance that is produced, the more pleasant Ss should rate the task. To the extent that there is justification for performing the task dissonance is not produced. Therefore, it is predicted that the greater the justification, the less enjoyable the task will be rated.

Exp. II: Same hypothesis as experiment I.
Exp. III: When justification is given before the task, low justification Ss would rate it more enjoyable than high justification Ss; while this would be reversed when justification is given after the task.

I.V. - Justification (High - low) Exp. III - time justification is given.

D.V. - Attitude change (how enjoyable was the task)

Manip - Exp. I: Ss handed booklet with instructions during class period. HJ Ss told that experiment was a part of a larger experiment on ESP. A master sheet had been marked by E, and Ss productions would be compared with it for greater than chance agreement. Also told results be used in class discussion of statistics. LJ Ss told only second reason for experiment. Questionnaire asked Ss to rate how enjoyable was the task. Exp. b replicated above except task a part of a larger personality study.

Exp. II: As above on graph paper S was to fill in random numbers with digits 0 - 9 in each square. LJ Ss told it would be used in class discussion on random numbers. JH Ss told how useful the number they produced would be to class in studying random numbers. LJ Ss told task not really useful to class.

Exp. III: Same task however Ss were members of English classes. The HJ Ss were told that task would complete experiment and allow E to finally analyze the data. LJ Ss told that after their class scheduled E discovered he didn't need any more Ss but since he
had scheduled them he decided to run them anyway although he wouldn't be using their data.

Topic - How enjoyable the task was to perform.

Results - Exp. I: sig. Ss given good reasons for doing the task rate it as less enjoyable than subjects given little reason for the task.
Exp. II: sig.
Exp. III: sig. When justification is given before task Ss who are given HJ rate it less enjoyable than those given LJ. When given after the task the ratings are reversed.
Gerard, H. B. Compliance, expectation of reward, and opinion change. 

H - Offering subjects smaller rewards than expected will produce dissonance and increase attitude change. Offering subjects more reward than expected will produce an incentive effect.

I.V. - Expectation of reward ($2.00 - nothing) 
Reward offered (50¢ - $2.00 - $5.00)

D.V. - Attitude change

Manip - Ss approached in dorm rooms by E posing as representative of fictitious research firm. S was handed sheet with explanation stating or not stating the expected reward. S given a pretest, asked to write counterattitudinal essay under condition of complete anonymity. S completed a post-test questionnaire.

Topic - Student government should take positions on non-university subjects.

Results - N.S. - no sig. difference between expectation and no expectation. Some weak support for both dissonance and incentive positions.

Probs - An important aspect of the procedure may be that the S must commit himself to an insufficient reward before he makes a decision to comply -- in this study the S complied by letting the E into his room before he learned of the reward. There was an n=8 in each treatment condition.

**H** - Persons whose attitudes are supported by a group discussion will show less attitude change in the direction of a counterattitudinal speech than persons whose attitudes were not supported by group discussion.

**I.V.** - Feedback (pro - neutral - anti)

**D.V.** - Attitude change

**Manip** - Ss completed a modified version of the Thurstone and Chave Attitude toward the church scale. On the basis of these scores Ss were formed into small groups with homogenous scores either pro-church, neutral on the scale, or anti-church. Another group of high (pro) scorers were chosen to read an anti-church message before one of the small groups and discuss it with the group members.

**Topic** - Against the church.

**Results** - Speakers changed their attitudes more in the direction of the counterattitudinal belief than did listeners. Speakers to anti-church groups changed more than speakers to neutral or pro-church groups.

**Probs** - Thurstone and Chave scale inadequate. Final manipulation check showed that the attitude scale actually only measured the amount of Ss church attendance. Ss read prepared messages and did not actually encode a counterattitudinal message. No control for differential post-role playing.

H - Under high dissonance conditions, attitude change should be more likely to take place under negative than positive reinforcement. In low dissonance conditions, predictions from reinforcement theory should hold -- positive reinforcement should result in more attitude change than negative reinforcement.

Persons high in need for approval will change more in the direction of the counterattitudinal belief than persons low in need for approval.

Persons low in self-esteem will change more in the direction of the counterattitudinal belief than persons high in self-esteem.

I.V. - Choice (Choice - no choice)
Reinforcement level (speech ratings from strong positive to strong negative)
Self-esteem
Need for approval

D.V. - Attitude change

Manip - Two weeks after they had taken a pretest, Ss were approached by E who introduced himself as working for a national research foundation. Ss were asked to take part in two studies -- 1) opinion survey, 2) spoken opinion study. Ss were given seven 3 x 5 cards with arguments for their speeches and seven minutes to organize them. After the speech S received feedback from Prof. Anderson who spoke on the phone (tape recorded speech) from another office.

Topic - Civil defense

Results - Low need for approval and high self-esteem subjects were more persuaded than other subjects. Greenbaum suggests that low need for approval persons are unused to complying to the demands of others and therefore experience dissonance when holding one position and agreeing to defend the opposing one. At the same time when the attitude measurement situation is separate from the situation in which the subject committed himself the effect of dissonance or reinforcement may be reduced. When they are not separated Ss respond situational demands by wanting to appear consistent to E.

Probs - Demand characteristics

H - Persuasion effects are mediated by the rehearsal and learning of attitude-relevant cognitive responses elicited by the persuasion situation. According to this analysis, the "role-playing effect" would be expected if agreement to advocate a view opposing one's own entailed adopting a disposition to react cognitively in a fashion more than usually favorable to information supporting that opposing position.

Ss should judge arguments supporting a given position as having more validity if assigned to advocate that position than if asked to support the reverse position.

I.V. - Position assigned (specialized education - generalized education)

D.V. - Attitude change - rating of arguments as supporting or valid for issue.

Manip - (Reports two experiments - replication with one improvement) Ss participated as members of a psychology class. During the class session booklets were passed out, page 1 of which presented an introduction to the topic and a pretest for S to indicate his position on it. On page 2 the S was informed that he was to write an essay on one side of the issue (specialized education - generalized education). On page 3 the S was told that a short period of time was to be spent examining the topic prior to writing the essay. Questions were given to reinforce the assigned position manipulation. On pages 4 and 5 24 statements concerning the issue were printed. The S was to evaluate these statements on how valid it was to the essay he was to write -- either as a valid supporting or valid opposing argument. ½ of the statements were pro generalized education while the other half supported specialized education. Ss were given 15 minutes to react to the questions. On page 6 Ss responded to a post-test. Control group rated statements without expectation to write.

Topic - Specialized education versus generalized education.

Results - The main effect of assigned position was in the direction predicted. Both initial position and assigned position had significant main effects on Ss final opinion with no interaction. Expectant counterattitudinal role players had a tendency to shift their opinions in the direction of the counterattitudinal position but not significantly so (p=.07).
expect that there would be no difference in expressed liking of the task produced by different levels of inducement ...

e) Diss. theory would predict that the lower the inducement to make the discrepant statements, the higher the perceived magnitude of the reward involved in inducing the discrepant statements ... The char. theory would give no reason to expect any magnification of the reward except to the extent that an attempt is made to dissociate the value of the reward as a causal factor in their action in making discrepant statements, since behavior so motivated and discovered by relevant others could cause a person to lose face among his associates.

I.V. - Inducement (Chinese lantern worth 4 Hong Kong dollars - transistor radio worth 30 Hong Kong dollars)

D.V. - Attitude change

Manip - Ss came to a business office in downtown Kowloon. All Ss were refugees from Communist China who had left the mainland since 1959. Ss in control groups were asked their estimates, given a Chinese lantern, and asked to estimate value of lantern and radio. Ss in low inducement grp. were asked to make a creative and persuasive speech from an outline handed him by E. Outline presented an argument for level of rice production against consensus of refugees. He received a Chinese lantern
Greenwald, Anthony G. When does role playing produce attitude change? 

H - The role player's disposition to react favorably to counter-attitudinal information may extend only to arguments that he has not previously considered and rejected. If this is true, then role-playing effects should not be expected when the only role-supporting information available to the role player has been prejudged and rejected by him.

I.V. - Time of first exposure to role-supporting arguments.

D.V. - Attitude change

**Manip** - Ss who had completed a pretest were either exposed to 10 arguments counter to their first position on a topic, then given a role assignment on the topic or another topic. Before beginning the role play, Ss were introduced to ten arguments on the second topic. Ss wrote their initial reactions to the arguments before beginning the counterattitudinal task of writing an essay. Ss were asked to judge validity of the two sets of ten statements prior to essay writing so that they saw the arguments twice. Ss were given 15 minutes to write their essays. After writing they completed a post-test questionnaire.

**Topic** - Opposing fluoridation of drinking water.
Immediate diplomatic recognition of Communist China.

**Results** - Sig. Subjects become more favorably disposed to counter-attitudinal information after receiving a relevant role assignment.
In composing their essays Ss did tend to focus on arguments they regarded as acceptable.
Was a significant role playing effect when arguments were initially examined after role assignment.

H - Persons who improvise their own counterattitudinal arguments show more change in the counterattitudinal direction than those who only read arguments given to them.

Persons who write their own arguments and read arguments of other persons will recall more of their own arguments than those of another person.

Persons who improvise their own arguments and then read arguments of another person will rate their own arguments as more original than those of the other person.

I.V. - Improvisation

G.V. - Attitude change and recall

Manip - Ss wrote five arguments, read five opposing arguments from another S and copied these. Ss then rated the ten arguments for originality, took Bills Index of Adjustment and Values, completed four Likert type attitude scales, and wrote arguments from memory (recall).

Topic - The need for a general or specialized college of education.

Results - Sig. Ss tend to accept and recall their own arguments more than comparable arguments from other persons.
Harvey, John and Mills, Judson. Effect of a difficult opportunity to revoke a counterattitudinal action upon attitude change. *Journal of Personality and Social Psychology*, 1971, 18, 2, 201-209.

**H** - Giving a person a difficult opportunity to revoke his discrepant action will increase attitude change in the direction of consistency with the action.

Directing a person's attention to the relationship between his prior attitude and the discrepant action increases attitude change in the direction of consistency with the action.

**I.V.** - Opportunity to revoke a discrepant action
Feedback concerning relationship between prior attitude and a discrepant action.

**D.V.** - Attitude change

**Manip** - Under the guise of testing new questionnaires, college students' attitudes were measured on a variety of issues, and the experimental topic chosen. Ss who were pro-topic were asked by a second E to tape-record a prepared speech which was counterattitudinal. Ss were randomly assigned to experimental and control groups. As S was completing a second questionnaire, E met E in hall within hearing distance of S. E asked E why he was not conducting his study. E, regretfully indicated he could not finish because he lacked subjects. E, sympathized and then asked if one of his Ss couldn't help him out. E indicated this would be helpful. E, then gave his permission for S to help but added only if the S agreed of his own accord. E then introduced E, to the S. E then summarized conversation with other E, gave substance of his study, indicated need for Ss and asked S to help him out, stressing that his participation was purely voluntary. "If the subject hesitated, prods were used by Experimenter 1, for example, 'It's quite all right with me. We'll just work around it.'" E, escorted S to another room explaining topic to him. S received prepared speech which was tape-recorded. After recording speech S signed card giving permission to release speech to an Univ. commission and the press. 1/3 Ss were given an opportunity to prepare another speech and substitute it for the present speech but at a time and place inconvenient to the S. Other Ss were not given this opportunity. 1/3 of Ss were told others who had done task had admitted that the task made them really think about their previous ideas on the issue and what they had said in the speech. Other 1/3 S in experimental condition were told...
that previous subjects had commented on the difference between recording speech and giving it in person. Ss returned to E, who administered posttest in form of another questionnaire. As E finished with an assessment of S perceptions of study, E entered room and asked if S were planning on returning the next day. Ss were debriefed.

Topic - Students should not be given control over kinds of courses offered at the University.

Results - $H_1$ was supported.

$H_2$ was not supported. There was a small difference between the two groups in the opposite direction than predicted.

Probs - For a discussion of relationship between this study and self-perception theory of Bem see the following:


Role playing should result in a significant positive change in the target opinions.

Role playing should interact with authoritarianism with greater positive opinion change in the high authoritarians than in the low authoritarians under the role condition.

Role play should interact with status of the precommunication source, with greater positive change in the high status condition.

Status should interact with authoritarianism so that under the no role treatment greater positive change should occur in the high than in the low authoritarians when the status of the source is high, but conversely greater change should occur in the low than in the high authoritarians when the status of the source is low.

I.V. - Role play - no role play
Status (High - low)
Authoritarianism (High - low)

D.V. - Attitude change

Manip - Ss pretested for attitude towards sale of alcohol in state, several weeks later Ss read speech by high status (low) church of Christ minister advocating sale of alcohol. (Ss were students in a Church of Christ college). Ss role played (wrote an essay) arguments for the sale of alcohol. No role play Ss only read the speech and did not write essay.

Topic - Repeal of Oklahoma Liquor Prohibition Law.

Results - Role play had sig. greater effect across all conditions than did no role play. Role play and high authoritarians showed more change. There was no significant interaction between role play and status. Status interacted with authoritarianism -- High auth. - High status Ss showed most change. High authoritarians could recall least of the arguments used in the speech yet changed the most.

H - Persons who make a counterattitudinal endorsement on video tape under conditions of high commitment and low financial inducement will demonstrate more attitude change in the direction of the counterattitudinal belief than persons who make a counterattitudinal endorsement under conditions of high commitment with high financial inducement.

Persons who are allowed to "take back" or "undo" their counterattitudinal behavior will experience less dissonance than persons who are not allowed a chance to undo their behavior.

Persons who make a counterattitudinal endorsement anonymously on audio tape should experience even less dissonance. The slope of the line from low to high inducement will be significantly more positive than each of the lines produced by the preceding two conditions.

I.V. - Justification (50¢ - $2.50)
Commitment (High: video tape, name, etc., no take back --
    Intermediate: video tape, name, etc., take back --
    Low: audio tape, anonymous)

D.V. - Attitude change

Manip - Ss completed a pretest to determine topic as a class assignment, were called by phone to participate in the experiment. After working for 20 minutes on a fill-in task, S was thanked for participating and his credit sheet signed by E. At this point E entered, asked S to help him on his project by preparing a communication which he might use as a message in an attitude change experiment. The S was offered 50¢ ($2.50) to make this message. Ss in the video conditions gave their names, home town, class, and major before making the speech. Each S received a card on which four statements had been printed which the S was asked to use in his speech. Ss in the take back condition made a second tape explaining their actions. Each S tape was played back to him. Ss then completed a rough draft of the "questionnaire we are planning to use with your speech."

Topic - The government should regulate family size to control the population explosion.
Results - Sig. neg. relationship between financial inducement and attitude change within the no take back video condition. The difference in slopes between the take back and no take back condition does not approach sig. The slope in the audio condition is significantly more positive than both the no take back and take back conditions.

- Study tested predictions based on four alternative hypotheses based on the following theories:

Old-style Dissonance: Commitment to attitudinal discrepant behaviour for insufficient justification results in a change toward the position to be advocated. Later criticism produces a further change in the direction of the advocated position.

New-style Dissonance: Commitment to (immoral) attitudinal discrepant behaviour for insufficient justification results in change toward the position to be advocated. Later praise produces further change in the direction of the advocated position.

Role Playing: Preparation and delivery of a communication produces change in the direction of the advocated position.

Reinforcement: Attitudinally discrepant behaviour followed by praise produces change in the direction of the advocated position.

I.V. - Time of attitude measurement (post-commitment, post-encoding, post-reinforcement)

Reinforcement (praise/criticism)

D.V. - Attitude change

Manip - 241 undergraduate Ss participated in study. 79 Ss were used to develop the attitude instrument while the 162 remaining Ss were randomly assigned to the experimental group and two control groups. Four equivalent forms of the attitude questionnaire were developed and counter-balanced in a Latin Square design to minimize learning and carry-over effects. Ss were recruited by phone after completing the pretest. Ss upon arrival at experimental room were told they would give a speech as part of an in-depth analysis of the course's rating form. He was also told that a recording of the speech would be used as part of an educational project to assess the optimum age for persuasion in grade school children. Ss were asked to make a counterattitudinal speech. After commitment they were told that recording of speech would be presented to uninformed and uncommitted seventh-grade children. Then Ss filled out the post-commitment measure. Ss were given 10 minutes to prepare speech. Speech was video-taped and S
filled out post-speaking measure. S returned to preparation room where a portion of the video-tape was played back to him and once again reminded speech would be used to persuade 7th graders. Ss in praise condition were informed that they had "... made good use of eye contact, gestures, ... will really persuade those seventh graders". Ss in criticism condition were told they had "... poor eye contact, gestures, ... don't see how those seventh graders will be persuaded". Ss were then told a mistake had been made in the post-commitment questionnaire. It was thrown away in front of them and they were given the post-feedback measure to complete. Ss were debriefed.

Topic - Pro marijuana usage.

Results - Ss who were praised rated their performance as significantly more successful than Ss who were criticized.

Results support both old and new dissonance predictions. No support for role-playing and reinforcement theory. Ss did not significantly change their attitudes after making the speech.

Ss who were praised changed their attitudes more in the predicted direction than Ss who were criticized.
Heslin, Richard and Rotton, James. Attitude change from counterattitudinal advocacy as a function of involvement and feedback. Purdue University, unpublished mimeographed paper, 1969.

A person involved in a counterattitudinal advocacy situation in which he lies, if praised for the lie, praise, as a positive event, should spread to the arguments of the speech that was praised and cause the speaker to be more positive toward the ideas he presented. Similarly, criticism should make the arguments appear less compelling. Furthermore, since the lie condition should be more involving and tension arousing, then greater tension reduction should be obtainable in the lie condition than in the debate condition. Thus... the greatest change should occur if a subject were lying and praised for his delivery.

Instructions (debate - lie)
Reward (praise - criticism)

D.V. - Attitude change

136 Ss were chosen from a pool of persons pretested and induced by telephone to participate in a study of oral presentation. Ss were met at a lab by an assistant who introduced deception, assigned topics, introduced S to the judge who would hear their debate. In debate condition S was told which side he should present, informed they could tell judge it was not their choice, but to argue for it as strongly as possible. In lie condition the assistant became upset because of a mistake and asked S to take anti side to protect him. S was given three chances to withdraw. S given two minutes to prepare speech. After introduction to judge the S was asked if this was his own position on the issue. S gave his debate. Judge evaluated speech only on S's delivery and not content. Lie Ss were told that E would send a report of their presentation to their instructors. In criticism condition judge said "Frankly, your presentation was one of the poorer ones I have heard". In praise condition, "Frankly, your presentation was one of the best I've heard so far. You did a great job."

Topic - Resolved: The present draft system is unfair, and military training is of little benefit to the individual.

Results - The praised liars showed sig. attitude change; none of the other groups changed significantly. Personality measures were used to check for self-selection among the 18 Ss who refused to speak in the lie condition. None of the measures
Heslin & Rotton - ii

distinguished the Ss who refused from those who participated. A significant interaction was found among need approval, commitment and reward among Ss who participated.

If a speaker who is lying finds out that his talk is well received, he will be able to use this positive reinforcement to neutralize his discomfort over lying; if he is told that he has given a poor performance, he should have even less justification, experience increased dissonance, and therefore, change his attitude to minimize his lie.

The speaker in a debate is in a psychologically different situation. Arguing against one's own position is a very usual thing to do. According to dissonance theory, a person should not have to search for justification of such behavior and, consequently, should have no motivation to change his attitude.

I.V. - Type of role (debate - lie)
Feedback (reward - punish)

D.V. - Attitude change

Manip - Ss were asked to participate in a debate. In the debate condition S was told that the person before him had spoken on the pro side and it was his turn to take the con position. In the lie condition the assistant E acted embarrassed by Ss choice and explained he was supposed to have an anti-draft person speak. After S volunteered, assistant asked him three times if he wished to retract his offer. S then told E that this was his own position and gave his debate. E rewarded Ss with either "If you would have been debating person before you you would have lost", or "you would have won. In fact your presentation was the best I have heard so far."

Topic - Resolved: the present draft system is unfair and military training is of little benefit to the individual.

Results - Results support a reinforcement hypothesis regarding the effect of feedback upon counterattitudinal advocacy.
Dissonance theory deals with cognition and claims universal validity for homo sapiens. Yet... some of the "follows from" relations in the theory rest on culturally based premises. The characterological theory cites what is unique about the culture into which Chinese are socialized... It is possible to devise an experimental test of the universality of forced compliance dissonance against the cultural differences claimed by the characterological theory for Chinese.

a) Diss. theory predicts that there would be private attitudinal change in the direction advocated by the public statement. Char. theory would lead one to expect little or no attitude change resulting from forced compliance, at least under conditions when the Chinese S is isolated from his reference group of close associates; however, since genuine attitude change resulting from prestige suggestion is possible in this situation, the prediction of the char. theory is not unequivocal for simple attitude change.

b) Diss. theory predicts that the greater the inducement to make the discrepant statements, the less the att. change to bring one's private opinion into line with his public statement. The char. theory would lead one to expect that the greater the inducement, the greater the overt compliance, but that neither increased inducement nor consequent increased compliance would produce any significant effect on changing private attitudes.

c) Diss. theory predicts that the lower the inducement to make discrepant statements, the more likely a person is to invent or recall arguments that are in line with his public statements for the sake of reducing greater dissonance. The char. theory would lead one to expect that the lower the inducement to make discrepant statements, the less likely one is to invent or recall arguments that are in line with one's public statement for the sake of foregoing unnecessary compliance.

d) Diss. theory predicts that the lower the inducement to make discrepant statements, the greater the expressed liking for the task as a means of reducing greater diss. The char. theory would lead one to
There exists a real cross-cultural difference between Americans and Chinese in their attitudinal reactions to forced compliance ... What the research suggests for diss. theory is a sharper specification and definition of the rules of psych. implication ... with an eye to the empirical conditions, especially cultural, which they hold.

H - Persons in the free choice, low incentive condition will show greater attitude change in the direction of their counter-attitudinal essays than will those in a no choice, low incentive condition.

Free choice Ss should show more essay congruent change in a low incentive condition than in a high incentive condition.

No choice subjects should show more essay congruent change in a high incentive group than in a low incentive group.

I.V. - Choice (free choice - no choice)
Incentive (2 hours credit - 1 hour credit - 15 minute credit)

D.V. - Attitude change

Manip - Ss in existing discussion groups completed pre-test. Groups were then split on the pretext they would need more room in which to write - ½ were given the choice to write - ½ given no choice. All Ss were given 30 minutes to write essays. Three levels of incentive were offered in the form of course credit for participation in an experiment.

Topic - Student involvement in the administrative and academic decision making process in the university is not justified.

Results - Sig.

Probs - Performed manipulation check for self-selection and did not find sig. differences.
Used non-parametric statistic to compensate for subject loss in free choice condition.

**H** - Persons who participate in counterattitudinal role playing under conditions of high commitment, low incentive and high deception will show greater attitude change in the direction of the belief-discrepant behavior than persons who participate in the counterattitudinal role play under conditions of low commitment, high incentive and low deception.

**I.V.** - Commitment (High - low)
Justification (25¢ - $1.50)
Deception (High - low)

**D.V.** - Attitude change

**Manip** - Ss were contacted during high school music classes and rated five brief selections of electronic music. Ss were interviewed individually, completed an immediate pretest, and were asked to write essays for 25¢ ($1.50). Ss in high commitment condition were asked to fill in their names and told that essays would be displayed on bulletin board in a major corridor of the school. Low commitment Ss did not supply their names and were told only E's employer would see the essays. Ss in low deception condition were told that E's employer was interested in seeing what effect writing essays would have on attitude change. High deception Ss were induced to write essays by explaining that it is easier to write on only one side of a topic than on both sides. Ss wrote for five minutes after which they completed a post-test.

**Topic** - Electronic music is better than popular music.

**Results** - n.s.
Manipulation checks show that all manipulations were effective, however, only a highly reliable positive relationship between incentive and attitude change was evidenced.

**Disc** - Ss may have felt that even though essays were on public display they could still explain to their friends their behavior. It is also possible that topic is one which is a matter of personal taste "whereas attitudes toward dull tasks, campus speaker ban regulations ... are in some way reflections of more important values not so free to fluctuate."
Correlations between performance variables and attitude change suggest that when task is one which S can perform without dissociating self from the content of his performance, att. ch. may be effected by performance. If circumstances lead to concommittant dissociation from task, the strength or extremity of the overt response and commitment may determine attitude change.

H - Only when the behavior has high aversive consequences and the subject makes an internal attribution of responsibility (for example, high choice manipulations) will the overt act produce private attitude change.

(Specific hypothesis of this study) Only under the interactive confluence of high aversive consequences and high choice will subjects come to regard their role-playing behavior as culpable and thus seek vindication or absolution via dissonance-predicted attitude change.

I.V. - Consequences -- high vs. low
Choice -- high vs. low

D.V. - Attitude change

Method - Ss participated in an "opinion project" by writing essays that toothbrushing is a habit fraught with danger to one's health. Ss were led, by printed instructions, to believe that essays would be used to "effectuate the abandonment of preventive health hygiene by the innocent junior high school students" (high consequences) or told that essays would have no impact upon student dental habits (low consequences). Ss in the low consequences condition were also told that students would read pro and con essays in order to compare arguments used by each side. ½ Ss were given high choice with stress placed upon their involvement in "deciding to write their essays", ½ Ss heard nothing about choice in deciding to write. Ss were then asked to read five arguments against brushing their teeth, use these arguments in their essay, and add their own arguments. Ss were given 25 minutes to write their essays. Ss completed 4 page medical questionnaire which included in a section on health habits the statement "Brushing your teeth is healthy" and in a section labelled medical knowledge questions the statement "Some toothpastes contain harmful chemicals and abrasives". The latter statement similar to one of the arguments given to be used in essay. After 15 minutes Ss were debriefed.

Topic - Toothbrushing is a habit fraught with danger to one's health. Essay headed "Don't brush your teeth."

Results - "Only under the confluence of both high consequences-high choice do Ss engage in pro-dissonance attitudinal adjustments".
Essays were rated by judge unaware of hypothesis or treatments as to persuasiveness, degree of improvisation, length, and writer's apparent 'real' opinion. No significant between condition differences were found.

H - When compared to open-minded persons, closed-minded individuals faced with the task of preparing a belief-discrepant communication will demonstrate greater attitude change in the direction of the discrepant position.

I.V. - Dogmatism Position (belief-discrepant - belief-congruent)

D.V. - Attitude change

Manip - Ss took pre-test which included the short form of the dogmatism scale and items for assessing students' attitudes towards controversial subjects. Three weeks later E₁ spoke to Ss in class, announced his affiliation, and the issue. All Ss received forms containing instructions for their communications. 1/3 open and closed minded Ss were instructed to write belief-discrepant messages. 1/3 were instructed to write belief-congruent messages while 1/3 wrote messages on an irrelevant topic. Ss told to prepare arguments out of class and bring to next class. E₂ was introduced after E₁ left and administered a questionnaire containing same attitudinal items.

Topic - Disarmament

Results - Sig. pretest-posttest attitude change occurred only in the closed-minded-belief-discrepant condition.

H - Role playing will be more successful in inducing attitude change if the sponsor is perceived as someone whose affiliations are benign in character and whose intentions are to promote public welfare than if he is perceived as someone whose affiliations and purposes are commercial or exploitative.

I.V. - Sponsorship (Commercial - public service)
Type of role play (overt - non-overt)
Justification ($1.00 - $20.00)

D.V. - Attitude change

Manip - Ss were approached in their dorm rooms by E who explained his affiliation (commercial book publisher - student service) and purpose. S was asked to write an essay - told the financial inducement and paid in advance. The overt role playing group was given a series of "pump-priming questions" and ten minutes in which to write the essay. The non-overt role playing group did not receive the questions but went from commitment to write to completing the post-experimental questionnaire. After completing the questionnaire members of the overt group were asked to rate arguments.

Topic - A year of physics and a year of mathematics should be required for every college student.

Results - Sig.

Probs - Ss reported they felt ambiguous about receiving the $20.00 reward.

**H**
Even when exposed to the same persuasive communications, people who are required to verbalize the content to others will tend to be more influenced than those who are only passively exposed.

**I.V.**
Role play effort (active - passive)

**D.V.**
Attitude change

**Manip**
Ss completed in a classroom a questionnaire which contained three key opinion items. Four weeks later Ss participated in a research project designed to develop a new aptitude test for assessing oral speaking ability. Ss asked to give an informal talk based upon an outline prepared by E. Ss in triads took turns reading a communication while others read it and listened. Each S read orally one communication and listened to two others. Immediately Ss filled out the post experimental questionnaire.

**Topic**
How many commercial movie theaters do you think will be in business three years from now? What percentage of present supply of meat will be available to civilian population in 1953? How many years it will be before a completely effective cure is found for the common cold.

Each communication contained an opinion estimate numerically lower than any given by Ss on the pretest.

**Results**
In communications A & B the active participants changed more in the direction of the communication than did the passive. Active participation resulted in a significant gain in confidence in their answer.

**Probs**
Ss presenting the third communication were less satisfied with their performance than persons in the other two conditions. This may have resulted from the fact that this outline was quite detailed and technical.

Ss in third condition tended to improvise less.

Ss who were not satisfied with their performance changed their attitudes less than Ss who were highly satisfied with their performance. This suggests that satisfaction with one's performance in a role play may influence the amount of attitude change.

H - Persons involved in an 'emotional' role play will show more attitude change in the direction of the counterattitudinal role play than persons who merely listen to a tape recorded role play session.

I.V. - Role play effort (emotional - passive)

D.V. - Attitude change

Manip - Volunteer Ss were screened by telephone to make sure they were all moderate or heavy smokers (at least 15 cigarettes a day). Ss were randomly assigned to one of two conditions: ½ of Ss were placed in the experimental role playing group. These Ss played the role of a person who has just been informed by her doctor that she has lung cancer caused by her smoking. The role play ends after the E has made all arrangements for the patient to enter a hospital for an operation and discussed with the patient means of stopping smoking by allowing the S to encode all possible ways of doing this. The other half of the Ss received the same introduction to the role play but merely listened to a tape recording of a role play session.

Topic - The necessity to stop smoking.

Results - Ss in the emotional role playing condition changed their attitudes more in the direction of stopping smoking than passive role players.

Probs - Study used only women college students. Janis and Mann note that they may be a distinct population in regard to smoking and that generalization to other populations is risky.

H - Persons engaged in the counterattitudinal endorsement of a negative task will show more attitude change in favor of the task when they receive minimal justification for their endorsement than when they receive maximum justification.

Persons engaged in the counterattitudinal endorsement of a pleasant (positive) task will show attitude change in the direction of diminishing task favorability when they receive minimal justification for their endorsement.

Persons who engage in the counterattitudinal endorsement of a pleasant task and receive feedback concerning the recipients' response to their endorsement will show attitude change in the direction of diminishing task favorability when they receive minimal justification for their endorsement.

I.V. - Type of task (pleasant vs. boring and dull)
Feedback (none vs. feedback concerning recipients' reaction to the task)
Justification (none - $3.00)

D.V. - Attitude change

Manip - Manipulation replicated Festinger and Carlsmith except that in the positive task condition Ss rated a series of female portraits. The dull task consisted of writing a series of random numbers. Ss were asked to describe the task to the next S (actually E confederate) with those who had completed the positive task asked to describe the task as dull, boring, etc. The posttest consisted of manipulation checks including one to check for dissonance measured as perceived anger, annoyance, and finding the endorsement behavior disagreeable. Ss in the positive task-feedback condition were asked to tell confederate how dull the task was and given feedback stating that confederate had apparently accepted their evaluation because he was being generally inattentive and looked bored.

Results - $H_1$ - sig.
$H_2$ & $H_3$ n.s. Ss tended to increase the favorability ratings of the task. Results are discussed in light of a cultural norm of positivity.

Results of the adjectival test to assess the presence of dissonance showed that Ss did experience dissonance in the positive task/feedback condition while the positive task/no feedback Ss expressed less hostility and depression.

H  - Belief will shift toward an assigned thesis as a result of investigation for, outlining, and delivery of a speech of advocacy.

Belief will shift toward an assigned thesis as a result of investigation which precedes expression.

Belief will shift toward an assigned thesis as a result of expression which follows investigation.

Investigation preceding expression will change belief in the direction of an assigned thesis more than expression which follows investigation.

An attitude measure inserted between the first and second stages of a time series will depress belief change in the second stage.

I.V.  - Time of measurement (after investigation but before expression - after investigation and after expression).

D.V.  - Attitude change

Manip  - Ss who had been required by their instructors to take part in this study reported to E's office where they were given an article from the Northwestern Daily reporting the establishment of a student opinion poll by the student council. Ss asked by E to prepare arguments which would be used in this poll. Ss in experimental groups were given 45 minutes to select six evidence cards to use in their speech. Ss were then given 45 minutes to prepare a speech outline. Control group Ss received only the posttest (Grp. A). Grp. B completed the posttest after selecting the evidence cards and again after they completed their speech. Grp. C took posttest only after they had given their speech.

Two experiments were run -- the second a replication of the first.

Topic  - Northwestern's grading system.

Results  - Hyp. 1 - Exp. I supported; Exp. II rejected
Hyp. 2 - Exp. I supported; Exp. II supported
Hyp. 3 - Exp. I rejected; Exp. II rejected
Hyp. 4 - Exp. I rejected; Exp. II supported
Hyp. 5 - Exp. II supported
Disc - Jones concludes that choice is not the important variable. The act of investigation is sufficient to produce attitude change. Active participation in giving a speech may not be necessary as the reading and selecting of arguments may be enough.

**H** - The relationship between the magnitude of the incentive and the degree of attitude change depends upon whether the reward is perceived as a bribe or gold star. When the incentive is offered before commitment, and especially when it is accompanied by an assertion concerning freedom to decline, it will be seen as a bribe. Under these circumstances, the larger the incentive, the more reprehensible the counterattitudinal act will appear to be, and the less likely the subject is to manifest postperformance attitude change. On the other hand, when a reward is offered after commitment, and particularly when it is not associated with a freedom clause, it will be seen as a gold star. The larger the incentive, the more commendable the behavior will be, and the more likely the subject is to bring his attitude into harmony with the act.

**I.V.** - Incentive ($1.00 - $4.00)
Choice
Time of incentive offer (Before or after commitment)
Type of act (Counterattitudinal - proattitudinal)

**D.V.** - Attitude change

**Manip** - Undergraduate Ss viewed videotape of an experiment which they were told was filmed earlier. In introductory clip they saw E sitting in his office. E explained that experimenters are often guilty of not asking subjects how they interpret experimental settings. They were informed that they would watch taped episodes in which a subject was participating in a counterattitudinal situation. The subject did not know that E had information about his attitudes and the speech he would give was counterattitudinal. Ss were asked to record their perceptions of the subject's perception of the situation. Ss then watched E as he told subject that he was to give a speech favoring or opposing draft deferments. The subject was told that his speech would be played to speech classes on campus and class members would evaluate them. ½ Ss saw a videotape in which E asked for a pro (con) draft deferment speech. One group of Ss saw the E give a freedom of choice manipulation. The other group saw no such choice. The subject was informed that E had a grant and he would be paid $1 ($4). ½ Ss heard the inducement offered before (after) commitment. The tape ended with E reiterating that subject would be identified by name and E would inform audience these were his own beliefs. After conclusion of videotape Ss completed post-test
questionnaire. Ss were thanked and debriefed.

**Topic** - In favor of (opposed to) draft deferments.

**Results** - Those who did not hear a freedom of choice clause indicated a greater perception of bribe. Persons who observed the incentive before commitment and those who received a counterattitudinal speech revealed a greater perception of bribe. The before-commitment group was more inclined to believe that the $4 was "an incentive to do something many other subjects would not do."

Viewers who heard the freedom clause attributed more freedom to subject than those who did not.

All viewers indicated some degree of coercion by the E upon the subject.

Viewers who saw the large inducement were more likely to indicate the thought the subject would decline to participate in the study if no money had been offered in the study.

Under low incentive the time the money was offered did not affect the viewers' interpretations.

Confrontation with a discrepancy or inconsistency typically sets into motion active (though not necessarily conscious) searching behavior, designed to assess the functional implications of the inconsistency. That is, the individual surveys those regions of his life space that are marked by inconsistency, in order to determine whether indeed it indicates a threat to the achievement of some of his goals or a possibility of a more effective utilization of his resources for the achievement of these goals. The discovery of such implications provides a challenge to the individual to re-examine his attitudes, his actions, and his social relationships, with an eye to improving his ability to cope with his environment... The nature of the person's reaction -- whether or not he will move to reduce the inconsistency: if so, by what means: and if not, what alternative course will he follow -- can be predicted only from an analysis of the specific functional implications of a given case of inconsistency.

Moral dissonance: the greater the reward the greater the psychological discomfort -- the greater the effort the less the psychological discomfort.

Hedonic dissonance: greater the reward and the lower the effort the less the psychological discomfort.

Under conditions of hedonic dissonance, the more unattractive the inducing agent, the greater the probability of attitude change toward the action and the general situation, but not towards the topic or issue.

Under conditions of moral dissonance, the more attractive the inducing agent, the greater the probability of attitude change toward the object or the issue.

I.V. - Degree of dissonance arousal (High - low)
Attractiveness of inducing agent (attractive - unattractive)
D.V. - Attitude change
Manip - Female Ss at Wayne State were approached by E who mentioned his membership in an organization known to favor state control of campus speakers. All Ss were given free choice to not
participate in the study. In moral dissonance condition S was to conduct interview but reinforce counterattitudinal responses of interviewee (those in favor of state control). In High dissonance cond. Ss told to reinforce every pro statement while in low dissonance cond. Ss reinforced only every fourth statement. Interviewee (E's confederate) gradually changed attitude responses during interview to give perception that reinforcement was effective.

In hedonic dissonance situation S was told she was participating in an experiment concerned with an analysis of the interview process. S listened to tape recording, S read questions and listened to taped response. E introduced his topic and position as he did in moral dissonance situation. Ss heard same responses as moral dissonance Ss but under very tedious and boring conditions. In high dissonance condition white noise was included on tape to make Ss task unpleasant while in low dissonance condition noise was eliminated. ½ Ss interacted with confederate of E who described E as wonderful teacher and person. ½ Ss interacted with confederate who described what a miserable teacher and person E was -- these Ss also heard E disparage Wayne State paper. After interview Ss completed a post test on attitudes toward issue, E, and manipulation checks.

**Topic** - Should the state government have the final voice in determining who should speak on state campuses?

**Results** - Hedonic dissonance hypothesis confirmed. Moral dissonance hypothesis confirmed.

H - Conformity in the communication situation will increase attitude change to the extent to which implicit supporting responses are produced, and decrease attitude change to the extent to which implicit interfering responses are produced.

I.V. - Incentive levels - availability and type (movie tickets, books)

D.V. - Attitude change

Manip - 246 seventh grade students completed a pretest measure of their attitudes on the relative harmfulness of two types of comic books. The next day they heard a communication at variance with most Ss' initial attitudes. After the communication they were asked to write essays presenting their own opinion on the subject. Grp. A served as a control group writing belief congruent messages. Grp. B (low restriction group) were informed that if they agreed with the E a "small percentage" of them would receive the 'large prize' but if they chose not to conform they might receive the small prize. Grp. C was told that every S who conformed or agreed with E would receive both a small and large prize (High restriction). One week later the attitude questionnaire was readministered.

Topic - Jungle comic books are more suitable reading than fantastic hero comic books.

Results - The control group had the smallest and the high incentive group had the largest number of Ss conforming to E's position. Amount of opinion change did not vary directly with degree of conformity as significantly more opinion change was found in the low incentive group.

Probs - Incentive vs. dissonance (Cohen, 1964, p. 85)
Subject self-selection (Festinger, 1957, p. 112-110)
Effects of competition (Brehm, 1960, p. 169)
Coercion to write (Kelman, 1953)

H - Dissonance hypothesis: The less attractive the person who induces the discrepant action the greater the attitude change.

Communication hypothesis: The more attractive the person who induces the discrepant action the greater the attitude change under conditions in which the inducing agent conveys his own attitude to the person performing the counterattitudinal endorsement.

I.V. - Attractiveness of inducing agent (attractive - unattractive)

D.V. - Attitude change

Manip - In both experiments reported: Ss were asked to engage in a discrepant action. The inducing agent specifically associated himself attitudinally with the action. Ss were given a choice between engaging in the discrepant action or withdrawing from the exp. After commitment but before the action the attractiveness manip. was introduced using three levels of attractiveness. Pretest and posttest used to assess attitude.

Exp. 1: Ss paid $1.00 for participating. Run with four different samples. Ss met with E (who was of same sex as Ss) in groups of five. Of the five two were E confederates. Ss induced to write counterattitudinal essays in preparation for a group discussion in which they would try to persuade a group of Southern students on topic using essays as notes. Each S given free choice. E left room, confed's discussed E and how fair and outstanding he was (inconsiderate and unfair).

Exp. 2: Ss approached with pretest in dorms then contacted by phone to participate in experiment concerned with political activism. Ss paid $1.00 to distribute leaflets in downtown Ann Arbor for 15 minutes. Ss given free choice. Confed. entered room, asked E questions -- in unattractive E condition, E was harsh, cynical and curt in response. In neutral E condition, E was matter-of-fact in response. In attractive E condition he was "sweet, kind, and understanding". Ss distributed handbills and completed post-test.
Kelman, Baron, & Sheposh - ii

Topic - Write original and persuasive essays supporting interracial marriage. (Exp. 1)

Exp. 2: Need for disarmament and international cooperation.

Results - Exp. 1: For female Ss more change when inducing agent is attractive. For male Ss the data is inconclusive.
Exp. 2: For males the unattractive inducing agent produced more attitude change. For females trend is present but not sig.

Disc - Results of these two studies led to the formulation of distinction between hedonic and moral dissonance.

Under conditions of hedonic dissonance, the more unattractive the inducing agent, the greater the probability of positive attitude change toward the action and general situation. No systematic relationship between attractiveness of the agent and attitude toward the object or issue would be expected in hedonic dissonance.

Under conditions of moral dissonance, the more attractive the inducing agent, the greater the probability of attitude change toward the object or the issue. No systematic relationship between attractiveness of the agent and attitude toward the action would be expected in moral dissonance.
Keutzer, Carolin S., Lichtenstein, Edward, and Himes, Kenneth H.
"Emotional" role playing and changes in smoking attitudes and
behavior. Proceedings, 77th Annual Convention, Washington, D.C.,

H - Persons involved in an emotional role play will change their
attitudes more in the direction of the behavior focused upon
by the role play than passive role players.

I.V. - Role play effort (emotional - passive)

D.V. - Attitude change

Manip - A replication of Janis and Mann (1965) utilizing slightly
different role play script. Ss were females, 19-27 years of
age. Control group listened to a 20 minute tape recording
of a role playing session to judge the quality of the role
player's performance.

Topic - Steps S can take in stopping smoking.

Results - Three studies are reported, none of which show significant
results.

Probs - Study one had an n=15. Study two had an n=27. Study three
had an n=12.

The authors conclude: It is also possible that the discrepant
results might be associated with changes in female smokers in
the interim between the Janis and Mann study and the present
research. Since 1963 (pre-Surgeon General's report), there
has been considerable dissemination and acceptance of inform-
ation concerning the health hazards of smoking; and it is
almost certain that the female smoker of today is more aware
and accepting of the smoking-disease relationship. The pre-
experimental data from the present study indicate that Ss
were smoking in face of considerable evidence and concurrent
with strong antismoking attitudes. That they continued to
smoke suggests that they might be better "immunized" or
defended against fear manipulations than was the female
smoker of 1963.

H - Under conditions of little or no prior commitment, high dissonance subjects should bring their attitudes into line more than low-dissonance subjects. The effect should be less under high prior commitment.

If dissonance results obtain for the topic specific to dissonance arousal, the conditions would be set for a test of the interactive effects of commitment and dissonance on the logically related topic of tuition increases. Since this topic is logically subsumed by the broader dissonance topic, we assume that writing the counterattitudinal essay will also be dissonant with the S's opinion concerning tuition increases, as well as that concerning private universities... On this basis it seems reasonable to expect results on the logically related item similar to those for the dissonance-specific item, that is, a main effect for degree of dissonance. In addition, since this topic is specific to the commitment manipulation, we are more confident in our expectation that high prior commitment will reduce the effect of the subsequent dissonance arousal.

I.V. - Commitment (High - low - no) Public - private Dissonance arousal (high - low - no) Choice

D.V. - Attitude change

Manip - Ss volunteered to participate in an experiment on 'regional speech accents'. Ss recorded a reading of a speech congruent with their attitudes. In the high commitment condition Ss gave their name, age, campus address on the tape before the speech. As they began E reminded them that past experience indicated that most persons hearing the tape would believe that these were their own ideas. In low commitment condition Ss were assured that tapes would be chopped up for analysis and no one would ever know that they had made the recording. When speech was recorded Ss were informed they were finished and should go to another building for post-exp. interview. However, since the interviewer was running ½ hr. behind schedule they could fill the time by helping out another graduate student. In high dissonance condition Ss were given free choice to participate. In low dissonance condition Ss were told they must participate to earn the $1.50 promised them. Ss were induced to write essays which were counter-attitudinal. In control conditions Ss wrote essays on
Kiesler, Pallak & Kanouse - ii

non-related topics. E2 then sent S to see E3 in another building for posttest and debriefing.

Topic - Topic 1: Opposition to tuitions at Michigan State Univ.
Topic 2: Public vs. private university education -- that public universities should become more like private ones (a portion of a prepared memo on the topic which Ss used implied that it would be necessary to raise tuitions at state universities to match private univ. tuition.

Results - Some ambiguity in data concerning the effects of dissonance arousal for females, the overall results replicate other dissonance studies. High dissonance Ss brought their attitudes more in line with their dissonant behavior than low dissonance Ss.
Under high prior commitment there is no sig. difference between Ss in high or low dissonance conditions. In low prior commitment conditions there is sig. difference between dissonance conditions.
The interaction between the dissonance exp. conditions and the commitment exp. conditions is sig.
High commitment-high dissonance Ss wrote essays judged by independent raters to be of lesser quality than Ss in the other conditions.
King, B. T. and Janis, I. L. Comparison of the effectiveness of improvised versus non-improvised role-playing in producing opinion change. Human Relations, 1956, 9, 177-186.

H - People tend to be especially impressed by their own persuasive efforts when they are stimulated to think up new arguments and appeals in order to do a good job of convincing others. According to this hypothesis, a person will end up by convincing himself of the validity of the point of view he is required to defend, provided that he has been induced to improvise new supporting ideas.

The individual's sense of achievement or satisfaction with his performance in a social role provides a special source of reward that is capable of reinforcing the opinions he overtly verbalizes in that role ... role-playing will have a positive effect with respect to changing private opinions in circumstances in which the individual feels satisfied with his overt performance.

I.V. - Type of role play (active - passive)
Improvisation - no improvisation

D.V. - Attitude change

Manip - Ss were required to enact the role of an impromptu speaker (speaker who reads aloud from a script) on a topic which was assumed to be counterattitudinal. Grp. A read the speech silently, then presented the talk without script, playing the role of an impromptu speaker. Grp. B read script silently, then read the speech aloud, playing the role of a speaker who reads aloud from a prepared script. Control Ss only read the script silently.

Topic - That over 90% of college students will be drafted within one year of their graduation and that they would be required to serve at least three years in the armed forces (i.e., one year longer than the present requirement).

Results - The improvisation hypothesis (H₁) is confirmed. Persons in Grp. A showed more attitude change than those in Grp. B. Grp. B did not differ significantly from the passive control group. E had given performance ratings to the improvisation group which had no effect upon the degree of attitude change.

Probs - After only design

H - Exp. I: The amount of inferred attitude change will be positively related to inducement level in the no-choice condition and negatively in the free-decision condition.

Exp. II: Persons in free-decision conditions who receive low incentive for counterattitudinal encoding will show more attitude change than persons who receive high incentives. However, persons who are prior-committed to participate in counterattitudinal encoding will show a reverse effect with a high incentive producing more attitude change than low incentive.

I.V. - Exp. I: Incentive (50¢ - $2.50)
Choice (Free decision - no choice)

Exp. II: Incentive (50¢ - $2.50)
Choice (Free decision - prior commitment)

D.V. - Attitude change

Manip - Exp. I: On the basis of informal opinion sampling an issue was chosen and Ss asked to write forceful and convincing counterattitudinal essays. In the free decision condition E stressed twice that the decision to participate was entirely that of the Ss. In no choice condition Ss were told that they had volunteered and given no chance to decide. In no choice condition! mentioned incentive casually just prior to Ss writing. In choice condition E mentioned incentive and then again reminded Ss of choice.

Exp. II: In prior commitment condition Rosenberg's manipulation was used. In free decision condition the same manipulation was used but before Ss left for the other experiment they were told "All I told this fellow was that I would send him some Ss if it was convenient but that I couldn't obligate my Ss in any way. So, when you get up there, listen to what he has to say and feel free to decide from there."

Topic - Exp. I: In support of a North Carolina law that forbade Communists and Fifth Amendment pleaders from speaking at state-supported institutions.

Exp. II: In support of strict enforcement of in loco parentis regulations at Duke University.
Linder, Cooper & Jones - ii

Results - Exp. I: sig.

Exp. II: sig.

Disc - "If a Ss freedom not to comply has been restricted before he is confronted with the task and with a clear description of the incentive, dissonance cannot be induced by an incentive of insufficient magnitude."

H - Qualitatively different types of discrepant action situations (or dilemmas) are assumed to have different motivational and behavioral implications. Actions which are discrepant from a person's values are said to arouse moral dissonance, while actions which are of little intrinsic worth are said to arouse hedonic dissonance.

Active improvisation (in comparison to both oral delivery and passive reading) is presumed to influence arousal of these types of dissonance differentially: increasing moral but decreasing hedonic dissonance. Moreover, each type is presumed to evoke differential attitudinal reaction designed to reduce it; moral dissonance is said to foster acceptance of the advocated position, while hedonic dissonance is said to foster enhancement of a subject's task and experimental role.

I.V. - Type of dissonance experienced (moral vs. hedonic)
Type of role play (improvisation vs. passive reading of a prepared passage)

D.V. - Attitude change

Manip - Ss in four experimental conditions were asked to deliver speeches clearly inconsistent with their own positions. Moral dissonance was created for ½ Ss by telling them the speeches would have important consequences (i.e., they would be effective in influencing other people). ½ Ss were told their speeches would have no consequences (hedonic dissonance). In each experimental condition, ½ Ss actively improvised speeches while the other ½ read aloud from a prepared text. Ss were then given a post-test. Three control groups were used.

Results - n.s.

Probs - Experimental procedures did not produce different types of dissonance.

Improvisation found to not always be effective in bringing about attitude change.

Discusses refined hypotheses which are supported by data with conclusion that "the interdependence of arousal and resolution processes needs more subtle consideration in theories of attitude-discrepant action."

- 1a In the situation of moral dissonance, Ss will be primarily concerned with their feelings of guilt. This concern will be greater in the High incentive condition than in the low incentive condition. Ss in the hedonic dissonance situation will experience less guilt and show no differential effects on this dimension.

  1b In the situation of hedonic dissonance, Ss will be primarily concerned with the insufficiency of their rewards relative to the discomfort involved. This concern will be greater in the low incentive condition than in the high incentive condition. Ss in the moral dissonance situation will experience less insufficiency and show no differential effects on this dimension.

  2 In both moral and hedonic dissonance situations, general discomfort will be greater in conditions presumed to generate high dissonance than in those relatively low in dissonance.

  3a To the extent that Ss in the moral dissonance situation become convinced that what they said about or did to the object is in keeping with its true character, their guilt should be reduced. Thus, they will tend to reassess the worth of the object they harmed or the value they violated. This tendency will be stronger in the high incentive than in the low incentive condition.

  3b To the extent that Ss in the hedonic dissonance situation perceive their role as socially useful and constructive, they should consider their submission to an unpleasant experience as more fully justified. Therefore, they will tend to reassess the worth of their own role. This tendency will be stronger in the low incentive than in the high incentive condition.

  4a In the M. D. situation, S is confronted with questions about his moral worth, about the kind of person he really is. Such a confrontation may lead to a redefinition of the self as less moral than he had previously thought, though this is probably not a frequent mode of resolving a moral dilemma. This tendency should be stronger in the high incentive condition than in the low incentive condition.
4b In the H. D. situation, S is less concerned about the implications of his action for his self-definition and more prone to externalize the blame for his dilemma. He will tend to question the morality of those whom he holds responsible. This tendency should be stronger in the low incentive than in the high incentive condition.

5 In addition to focusing on different aspects of the same object, Ss in the two types of dissonant situations are likely to focus on different attitude objects in their attempts to resolve their respective dilemmas. While Ss in the M. D. situation will be more oriented toward the object of their action or toward their self-definition, those in the H. D. situation will be more oriented toward the action itself. To the extent that they perceive the task to be worthwhile their level of dissonance should be reduced. This tendency to perceive the task favorably should be stronger in the low incentive than in the high incentive condition.

6 In both M. and H. dissonance situation, Ss will try to disavow responsibility for their action to whatever extent possible. This tendency to attribute their involvement in the situation to external constraints will be greater in conditions presumed to generate high dissonance ($10 AG and $1 AR) than in those relatively low in dissonance ($1 AG and $10 AR).

7 To the extent that Ss in M. D. sit.'s can see themselves as having 'suffered' as a result of their immoral act, their feelings of guilt would be mitigated. Such expiation through personal suffering is a mode of resolution that is irrelevant for H. D. Ss. Ss in M. D. sit. will tend to perceive their task as more difficult than do Ss in H. D. situations. This tendency will be stronger in the high incentive than in the low incentive condition.

I. V. - Incentive ($1.00 - $10.00)
Type of dissonance (Moral - Hedonic)

D. V. - Attitude change

Manip - Students in an advanced psych. course were asked to imagine themselves as participating in a "strictly hypothetical experiment". E was then introduced. After E had outlined some imaginary research, he asked Ss to volunteer. The
instructor passed out sign up sheets and envelopes containing questionnaire and instructions. ½ Ss received instructions that they were to be abuse givers (Moral dissonance) while the others were to be abuse receivers (Hedonic dissonance). ½ Ss were told they would receive $10.00 ($1.00). E then explained that instead of taking part themselves in an actual experimental session they would watch one session. Each S was to identify with the actor playing his particular role in the simulation. At end of simulation, S would complete his questionnaire as if he himself had participated in the session he had observed. Props were used to make the setting realistic. E spoke only to actors with two asides to class. Simulation began with actors reading instructions, went through four rounds of information exchange, then evaluated each other. Actor in H. D. condition gave a general evaluation of other actor. Actor in M. D. condition was abusive, rude and cruel in his evaluation of the other. E then terminated simulation and Ss completed the postexperimental questionnaire.

**Topic**

- Giving an unwarranted, abusive evaluation of another person or receiving an unwarranted, abusive evaluation.

**Results**

1a - supported
1b - n.s. but in right direction
2 - n.s. but in predicted direction
3a - n.s. but in predicted direction
3b - n.s. but in predicted direction
4a - supported
4b - supported
5 - n.s.
6 - n.s.
7 - supported

**Probs**

- Procedures to arouse hedonic dissonance did not work as planned effectively -- there was only weak arousal effects in the hedonic dissonance condition. Suggest that role playing may be effective for more gross effects but more subtle and non-obvious ones need further study.

H - Attitude discrepant persuasive behavior will lead to attitude change toward the position it supports.

Having an expectancy that discrepant behavior will be rewarded results in less dissonance than when no such expectancy exists.

Having an expectancy that discrepant behavior will be rewarded results in less dissonance even though the expectancy is disconfirmed.

Subjects who had low expectancy for receiving rewards will be more positive than subjects who had a high expectancy.

Subjects who were offered a high incentive to behave discrepantly will be less positive than subjects who were offered a low incentive.

Disconfirmation of the expectancy will lead to increased positive attitudes.

Disconfirming a high expectancy for a high reward produces greatest positive attitude change.

Disconfirming a low expectancy for a low reward produces the smallest positive change.

I.V. - Incentive (50¢ - 25¢) Probability of reward (90% - 50%)

D.V. - Attitude change

Manip - 8th grade girls were given 5¢ for writing a counterattitudinal essay. First grp. told nothing more. Other 4 groups were told they had a 90% (50%) chance of receiving an additional 50¢ (25¢). Post measure of control grp. was used as pre-measure for other groups.

Results - More attitude change in 5¢ condition than in 50¢ condition. Disconfirmation produced increased positive attitudes for whole sample. All expectancy Ss reported less desire to participate. High incentive grp. (50¢) reported greater satisfaction.

H - When a person of low credibility forces a person to make a counterattitudinal endorsement there will be more attitude change in the direction of the endorsement than when the behavior is performed for a person of relatively high credibility.

When a person makes a counterattitudinal endorsement under conditions of free choice there will be more attitude change in the direction of the endorsement than if the behavior is performed under conditions of no choice.

When persons are told the credibility of person making the request for compliance before the decision to perform the task there will be more attitude change than when they are informed about the person requesting compliance after making the decision.

The greater the discrepancy between the subject's private attitude and the position advocated in the counterattitudinal endorsement the greater the attitude change in the direction of the endorsement.

I.V. - Credibility of person requesting compliance.
Choice
Sequence (informed of credibility before decision vs. after decision)
Discrepancy (low - medium - high)

D.V. - Attitude change

Manip - Ss (408 female undergraduates) were induced to write counterattitudinal essays under varying conditions of credibility, choice, sequence, and discrepancy.

Topic - Increase in tuition at the University of Maryland.

Results - 
H₁ sig. dissonance effect
H₂ sig. dissonance effect
H₃ not reported in Dissertation Abstracts
H₄ only partially supported -- attitude change was not always directly related to discrepancy size.

It is predicted that because fear role playing is more likely to break through the defensive facade that protects an attitude than is cognitive role playing, it will be more effective for the modification of smoking habits and attitudes.

Males should be more affected by shame arousal in role playing and female smokers should be more affected by fear arousal techniques.

**I.V.** - Sex
Type of role play (shame - emotional - cognitive)
Verbalization (high - low)

**D.V.** - Attitude change

**Manip** - Ss were asked to participate in one of three role play conditions: Cognitive role play - S played the role of a debater preparing and giving an anti-smoking debate. E played the role of debate coach. Shame role play - S played the part of a patient who is told by doctor (E) that he has little self-control and should develop self-control by stopping his smoking. Emotional role play - S played role of patient who is informed by doctor (E) that he has lung cancer and must have an immediate operation.

**Topic** - Cognitive - Why smokers should quit.

**Results** - Emotional role playing is more effective than other two types of role play.
Ss in high verbalization role play show more attitude change than Ss in low verbalization role play.

**Probs** - Instructions may have sensitized Ss to the purpose of the role play.
Cognitive role play condition is a very low dissonance condition (no choice, anonymous) and E emphasizes in direction that it is "make-believe".

**H** - Subjects in the emotional role play will show less cigarette consumption over 18 months time span than those who cognitive role played than those who had not participated.

**I.V.** - Type of role playing condition (Emotional - cognitive - none)

**D.V.** - Cigarette consumption

**Manip** - Ss of previous Janis and Mann study (1965) were surveyed 18 months later as to how many cigarettes they smoked a day.

**Results** - sig.
For issue attitudes there was a credibility x volition (choice) interaction. High credibility produced greater change under free choice condition.

For task attitudes a sequence x volition (choice) interaction was found. "This result indicated that dissonance can be aroused by information after commitment".

**H** - Persons who encode a counterattitudinal message under conditions of high freedom of choice and low incentive will demonstrate more attitude change in the direction of the message than persons who encode such a message under conditions of low freedom of choice or high incentive.

**I.V.** - Choice (high - low)
Justification (50¢ - $2.50)
Mode of counterattitudinal role playing (anonymous-written-public oral)

**D.V.** - Attitude change

**Manip** - Ss came to radio studio where they were asked to prepare an anonymous essay (tape recorded statement) on topic. Free choice Ss were informed they would receive credit for the experiment whether they participated or not. The no-choice Ss were treated in a manner as if they had already volunteered. E recorded Ss' statements in their presence. Study was introduced as a project of university radio station to help determine student feeling for a future radio program. When E announced payment (50¢ - $2.50) he again assured Ss they were free to choose whether or not to participate.

Exp. II: instructions further emphasized choice; incentive was increased ($2.50 - $5.00); mode variable replaced by time of measurement (before writing essay - after writing essay).

**Topic** - There is a need for a substantial increase in tuition, in the neighbourhood of $500.00 annually.

**Results** - Manipulations were successful in Exp. I, however, a sig. incentive effect was found -- more Ss in the $2.50 condition reacted favorably to the money than in the 50¢ condition. No sig. attitude change was discovered.

Exp. II: n.s. attitude change in any condition.

**Probs** - In Exp. I the setting was so realistic that there was great difficulty in debriefing the Ss. These authors do not feel that their lack of results is due to incompetence as dissonance theorists would suggest. "Our failure to obtain these effects convinces us not necessarily that dissonance theory is untrue, but rather that dissonance people are unable to specify the variables that will reliably produce dissonance results."

Following commitment to engage in counterattitudinal communication, persons given low justification for their behavior will demonstrate greater attitude change in the counterattitudinal direction than persons given high justification.

Following actual encoding of a counterattitudinal message, persons given high justification for their behavior will demonstrate greater attitude change in the counterattitudinal direction than persons given low justification.

I.V. - Justification (High - low)
Time of measurement (following commitment - following encoding)

D.V. - Attitude change

Manip - Ss were asked to write an essay (belief-congruent - belief-discrepant) for a study sponsored by (University Housing Association of American Colleges and Universities [High Justification] - national office of Students for Democratic Society [Low Justification]). After Ss had committed themselves E was interrupted by class instructor who asked if Ss could fill out a questionnaire before writing essay so that he could deliver it while they were busy. E agreed and measurement was taken. Ss then wrote essays and completed post experimental questionnaire.

Topic - All students should be required to live on campus during their college attendance.

Results - n.s.

Probs - Ss seem to have perceived the reward as innocuous or neutral. A post hoc analysis of messages showed that while 96% of essays written by Ss in belief-congruent condition were judged 'for' topic, only 49% of Ss in belief-discrepant condition were judged to have written messages 'against' topic. Appears that Ss did not encode discrepant messages. Experimental instructions indicating messages would appear in book ("forthcoming publication") containing both pro and con arguments may have served to reduce dissonance experienced by Ss.

H - Following commitment to engage in counterattitudinal communication, persons given low justification for their behavior will demonstrate greater attitude change in the counterattitudinal direction than persons given high justification.

Following actual encoding of counterattitudinal message, persons given high justification for their behavior will demonstrate greater attitude change in the counterattitudinal direction than persons given low justification.

I.V. - Time of measurement (following commitment - following encoding)

Justification (High - Low)

D.V. - Attitude change

Manip - Ss were inmates at a state training unit. Three days after completing pretest, Ss were asked to write arguments in favor of lottery draft system. Ss in High Justification condition were told that research was sponsored by "a committee of college teachers and presidents working in cooperation with Michigan State University". Ss in low justification condition were told sponsorship was a commercial publishing company preparing a book explaining how young men can get out of military service. After committing themselves to writing, Ss completed a questionnaire for "another professor" and then wrote essays.

Topic - Arguments in favor of a lottery draft system.

Results - Sig. more Ss in low just. condition decline to participate than high justification condition. Hypothesis 1 is supported

Hypothesis 2 is not supported by the data

Probs - High justification manipulation may not have been entirely successful.

H

- Dissonance is aroused as a function of discrepancy between self-concept and the consequences of behavior.
  - If individuals are given high or low monetary inducements for making a counterattitudinal statement, they experience more dissonance if there is a reasonable possibility that their statement will have an effect upon the audience.
  - Specifically:
    a) When addressing an audience of uncommitted individuals, subjects undergo more attitude change in a low-inducement condition than in a high inducement condition;
    b) the strongest negative effect will be in the uncommitted audience condition;
    c) the condition most likely to have a positive relationship between attitude change and financial inducement is the condition where the audience is already committed to the position advocated.

I.V. - Audience commitment (committed - uncommitted)

Justification (50¢ - $5.00)

D.V. - Attitude change

Manip - Ss were asked to video tape a counterattitudinal message which would be played before a committed (uncommitted - opposed) audience. Ss were offered 50¢ ($5.00) to make the tape.

Topic - The use of marijuana.

Results - The audience-award interaction was not significant.
  - A significant dissonance effect was discovered in the low justification-uncommitted audience condition.

Probs - Ss not given a choice to participate until after they had agreed to perform the task.
  - E used a prepared speech outline.

H - If it is true that the reward has an effect in the one dollar condition because of its interaction with the dissonant quality of the compliance, the same effect should not be observed in a consonant compliance condition and a fortiori be different from the one in a no compliance situation. Moreover, if the reward is to be seen on a continuum of force for the compliance, there should be even less force in a no reward dissonant compliance. Consequently, the so-created dissonance should be greater and the attitude change different from the change observed in a consonant or no compliance condition without reward.

I.V. - Reward (500 BF - 20 BF - no reward)
Type of compliance (dissonant - consonant - none)

D.V. - Attitude change

Manip - Ss received preliminary instructions from professor which indicated they might also be interviewed by Mrs. J. S performed dull task (turning 49 wing nuts ½ turn for 30 minutes) followed by second dull task (emptying and refilling a tray with spools) for 30 minutes. S then debriefed with information that some Ss are informed beforehand that tasks are enjoyable, etc. E then entered and S induced to tell next S (a girl) that task was enjoyable, etc. (boring, etc.) for 500 BF (20 BF - no reward). E introduced S to stooge S and left to see if Mrs. J. wanted to interview S. S was interviewed by Mrs. J. who administered post-experimental questionnaire.

Topic - How enjoyable (boring) were the experimental tasks.

Results - In dissonance conditions - n.s.
In consonance conditions - 20 BF most favorable rating - 500 BF least favorable - no reward intermediate.

Probs - Ss in the 500 BF condition may have been embarrassed by the large reward - 20 BF Ss did not consider the smaller reward unnecessarily large and responded with a "pure reward effect."

H  - The more effort an individual exerts to encode a counterattitudinal message, the greater the subsequent attitude change.

The more effort an individual exerts to encode a counterattitudinal message, the more resistant to extinction the subsequent attitude change.

I.V. - Effort (four levels)

D.V. - Attitude change

Manip - On the basis of a pretest an issue was selected that was counterattitudinal for Ss. Ss were randomly assigned to experimental or control groups. One experimental group read aloud counterattitudinal messages prepared by E. Another experimental group wrote their own messages. The third experimental group wrote and presented speeches on the counterattitudinal topic. The fourth group upheld the counterattitudinal position while interacting with an E confederate. Control Ss completed the post-encoding questionnaire with no intervening manipulation. Experimental Ss next read the counterpropaganda and completed the second posttest.

Results - n.s.

Topic - Summer school students should pay more tuition than do students during the regular school year.

H - The relationship between attitude change and communication discrepancy is nonmonotonic; specifically, that the amount of attitude change toward a discrepant communication increases as the position of the communication is displaced from the most accepted position toward the end of the latitude of acceptance and decreases as the position of the communication is further displaced into the latitude of rejection.

I.V. - Position of topic for counterattitudinal essay in relation to latitude of acceptance.

D.V. - Attitude change

Manip - Ss who had completed a questionnaire of 10 items drawn from a previously constructed Thurstone scale (Thurstone scale values progressed from 1.35 to 10.8 for items chosen). Ss were instructed to indicate single most item acceptable to them, the single item most objectionable, and any other items which they found acceptable or objectionable. Three weeks later Ss were instructed to report to E's office to fulfill experimental credits for a course. Each S received experimental instructions to write a 500-word essay arguing in support of a particular position. S's topic was a paraphrase of one of the scale items varying from one to six positions away from his initial most accepted position. Ss were given two items of supporting evidence for his essay drawn from current magazines or newspapers. Ss were randomly assigned to positions with male and female Ss approximately balanced in all conditions. Ss returned essays 48 hours later, completed post-test questionnaire, and were debriefed. All Ss had initial identical latitudes of acceptance and rejection.

Topic - In favor of a particular position toward the Vietnam War, e.g., The United States, for many reasons, should end the bombing of North Vietnam.

Results - Sig. The most persuasive messages are those in positions 4 and 5, slightly within the latitude of rejection, while those at the extreme discrepancy of position 6 produce decidedly less change... Thus, attitude change is most likely to occur in response to a communication when its placement is a short distance removed from the end point of the latitude of acceptance. The S then will react to the anchor stimulus by extending his latitude to encompass it.

H - The decision to take a discrepant position on an issue is sufficient to produce dissonance and consequent attitude change in direction of the position taken.

Verbalizing the discrepant position will tend to inhibit attitude change produced by dissonance.

I.V. - Justification (High - low)
Time of measurement (following agreement to write - after having written the essay)

D.V. - Attitude change

Manip - Ss were individually contacted and asked to write essays advocating the elimination of athletic competition between schools. All Ss were told essays would help the administration in considering such a course of action. ½ Ss given high justification while the others were given little justification for the essay. Attitudes were measured either immediately after a S had agreed to write the essay or after he finished writing.

Topic - Why athletic competition between schools should be eliminated.

Results - Hypothesis 1 is supported by the data
Hypothesis 2 is not supported by the data.

Probs - No overall significance test for high versus low justification is reported.
Of 60 subjects approached 46% or 28 of them refused to write the essay. Data is collected from those who agreed to write.
H - When persons are committed to but do not actually encode counterattitudinal messages, closed-minded persons will exhibit more change in the direction of the role-played position than will open-minded persons.

After the messages are actually encoded, open-minded persons will show more change in the direction of the role-played position than will closed-minded persons.

I.V. - Dogmatism (High - low)
Time of measurement (after commitment - after encoding)

D.V. - Attitude change

Manip - Ss completed pretest which included opinion items and dogmatism test. Two weeks later Ss volunteered to take part in a research project. Within high and low dogmatic groups, Ss were assigned randomly to write, no-write and control groups. Ss told there would be two experiments and they should participate in both to get credit. One experiment was the essay writing task and the other was a slide task used to mask the connection between essay and post-test. In no-write condition, the subject of essay was introduced, Ss committed themselves to writing, and then saw slides and received post-test. Ss in write condition received 30 minutes to write their essays.

Topic - Whether or not 18 year olds should be given the vote.

Results - n.s.
Utilizing upper and lower 1/3 of Ss on dogmatism a sig. interaction between dogmatism and treatment is found.

Probs - Ss may have been influenced by outside publicity on issue after pretest but before experimental sessions.

H - Hypotheses based upon Kelman and Baron's functional theory of differential types of dissonance and not given or specified in Dissertation Abstracts.

I.V. - Self-esteem
Attractiveness of experimenter (trustworthy vs. untrustworthy) (expert vs. inexpert)

D.V. - Attitude change

Manip - Ss were divided into groups of high and low self-esteem respectively. ½ Ss were manipulated to think that the experimenter was trustworthy (untrustworthy) holding expertness constant while the other half were manipulated to think that the E was expert (inexpert) holding trustworthiness constant. Ss were told that the study was concerned with the effect of social influence on a person's attitudes or beliefs. Each S was asked to become an interviewer for S₂ (E's confederate) and play the role of a reinforcing agent. Each S was led to believe that this was a very effective technique and S₂ would change her attitudes. The role S₁ adopted was reinforcing statements which were at variance with her own attitudes. S₂ was preprogrammed to gradually increase the number of pro-topic statements made during the interview.

Topic - State control of campus speaker policies.

Results - There were consistent changes across the conditions. "The particular pattern taken by the changes was contingent upon the specific combinations of self-esteem and the ways in which attractiveness was operationalized."

H - The most usual basis for attitude change is the establishment of new beliefs about the attitude object, beliefs that are inconsistent with the original affective orientation toward that object. In this view the significance of a reward received for writing a counterattitudinal essay ... would be different from that claimed in dissonance theory: such a reward would, in proportion to its magnitude, be likely to have a positive effect both upon the development and the stabilization of the new cognitions. From this it would be predicted that with the removal of the biasing factors the degree of attitude change obtained after the subjects have written counterattitudinal essays will vary directly, rather than inversely, with the amount of reward.

I.V. - Justification (50¢ - $1.00 - $5.00)

D.V. - Attitude change

Manip - When Ss arrived at the office of E1 they were informed that he was behind schedule and they would have to wait. When they agreed E1 casually suggested they might like to use the time by participating in "a little study" being run by some graduate student in education. Ss went to education department where E2 utilized Brehm and Cohen (1962) instructions to induce them to write an essay for 50¢ ($1.00 - $5.00). After S completed essay, he was paid, and sent back to E1 who administered the post-experimental questionnaire.

Topic - Why the Ohio State University football team should not be allowed to participate in the Rose Bowl.

Results - sig. incentive effect.

Probs - Ss may have been pre-committed to participate in second study by first E.
Discarded 11 of 62 Ss (Two because they impressed E1 & E2 as having psychotic tendencies).

H - When a monetary payment is offered for counterattitudinal behavior, but payment is not given until after the final attitude measure an inverse relationship will occur between the magnitude of the incentive and attitude change.

When a monetary payment is offered for counterattitudinal behavior, and payment follows the performance of the behavior but precedes the attitude measure a direct relationship will result.

When a monetary payment is offered for counterattitudinal behavior and payment is given after the commitment to engage in such behavior but prior to its actual performance an inverse relationship will occur.

Expected by all theories are direct relationships between the magnitude of attitude change and essay length, essay time, and qualitative aspects of the essay. Hence, the relations of these variables to magnitude of monetary inducement will be the same as that between the latter and attitude change.

I.V. - Time of payment
Justification ($1.50 - $5.00)

D.V. - Attitude change

Manip - Ss invited to participate in a university-wide opinion survey for a prestigious university committee. S asked to write a counterattitudinal essay for $1.50 ($5.00). S was paid after agreement - after writing essay - after completion of post-experimental questionnaire. Ss wrote essay and then recorded essay on tape beginning with his name, class and major. Post-experimental questionnaire was disguised as a student council questionnaire and S was asked to complete it and drop it off at student council office. Immediately after completing questionnaire S was interviewed by E and debriefed.

Topic - The City University should start charging all undergraduates tuition.

Results - Hyp. 1 supported
Hyp. 2 supported
Hyp. 3 reversal

When the money was paid during the course of the experiment
a direct relationship was found between magnitude of money and extent of attitude change; whereas, when the money was not paid during exp., an inverse relationship was found.

H - High freedom of choice causes greater receptivity to subsequent social influence than does low freedom of choice.

Low freedom of choice causes a boomerang response to subsequent social influence.

Over time attitudes that have changed as a result of social influence will regress to the pre-experience level when measured in a different setting.

I.V. - Freedom of choice (high - low)
Feedback (praise - criticism)

D.V. - Attitude change

Manip - Ss reported to lab after being induced by telephone to participate in the study. Ss completed checklist of a good speaker and were assigned topic. In lie condition E said an error had been made, S was asked to lie to judge and tell him topic was Ss own attitude. Ss were asked three times if they would do this as the E reinforced the impression that he had no right to ask them to lie. In low freedom condition S was simply assigned to speak against the draft. After oral presentation judge said, "If you had been debating the speaker before you, you would have (lost) (won)." Ss returned to E's room where they completed a post experimental attitude questionnaire and were partially debriefed. Two weeks later Ss received a letter from the Institute for the Study of Social Change with a questionnaire represented as a national college poll.

Topic - The present draft system is unfair and military service is of little benefit to the individual.

Results - Hyp. 1 supported by the data.
Hyp. 2 n.s. p ≥ .10.
Hyp. 3 n.s. For three out of four groups delayed attitudes are more pro-draft than before Ss gave speeches. In the low freedom group: the criticized Ss evidenced a sig. boomerang effect (p ≥ .01) for those praised the boomerang effect was sig. at .05 level.

Concl - "In a sense, the debriefing may have acted as a potent treatment for the low freedom of choice groups. For a person
whose freedom of choice has been eliminated once, knowledge that he received a predetermined feedback might be interpreted as a further loss of control over his fate."

**H** - The enactment of a role which supports an attitude contrary to one's private belief will lead to change in that belief.

When positive social reinforcement is given, the direction of attitude change will be toward the position expressed publicly during role enactment; this change is greater when positive social reinforcement is given than when negative social reinforcement is given.

Persons high in need for social reinforcement will change their private attitudes in the direction of role reinforcement to a greater extent than persons who are low on this variable.

**I.V.** - Audience feedback (positive - negative)

Need for social reinforcement.

**D.V.** - Attitude change

**Manip** - Ss spoke on contemporary issues before an audience of 10 to 12 individuals all of whom were confederates of the E. The audience reinforced speaker with smiles, nodding head in agreement, taking notes, etc. Negative reinforcement was provided by frowns, negative head shaking, yawning, being inattentive, acting bored, and disapproving.

**Topic** - Contemporary issues

**Results** - Hyp. 1 - n.s.
Hyp. 2 - sig.
Hyp. 3 - n.s.

**Probs** - Ss may have been differentially motivated to speak on various topics.
There may have been more motivation to persuade a negative audience.
There may be more dissonance in attempting to persuade a negative audience.
Scott, W. A. Attitude change through reward of verbal behavior. *Journal of Abnormal and Social Psychology*, 1957, 55, 72-75.

H - Attitude is a function of reward. Winners of a debate will change more in the counterattitudinal direction than members of a control group or losers of a debate.

I.V. - Reinforcement (winning - losing)

D.V. - Attitude change

Manip - Pairs of students were chosen and asked to debate any of three issues on which they had previously expressed their opinions. Both Ss defended a belief-discrepant position. The excellence of their presentation was judged by the class which voted on who was the winner. The vote was falsified by E so that a predetermined member won. Ss completed post-tests.

Results - Winners had changed more in the direction of the debate than losers.

Probs - Ss interpretation of vote was not determined.
Scott, William A. Attitude change by response reinforcement: Replication and extension. *Sociometry, 1959, 22, 328-335.*

**H** - Attitude is a function of reward. Winners of a debate will change more in the counterattitudinal direction than members of a control group or the losers of the debate.

**I.V.** - Reinforcement (winning or losing a debate)

**D.V.** - Attitude change

**Manip** - Ss were pretested in class on three topics. A couple of weeks later volunteers were contacted by phone and asked to take a particular side of one of the three issues in a debate. Some Ss defended their own opinions, some the opposite opinions and some debated "off-neutral". Debates took place with 3 judges and an opponent present. Ss were told if they won 3 debates they would win $20.00. Winners in the first debate were randomly predetermined by E who was one of the judges. Ss then completed a post-experimental questionnaire.

**Topic** - Curriculum (what kinds of courses would you put most stress upon)
Fraternities and sororities (are they a detriment to the student)
Ideal husband or wife

**Results** - Winners changed more than controls or losers.

**Probs** - Topics were assigned and Ss had no choice of sides.

H - When the time of the incentive manipulation is held constant, the relationship between incentive magnitude and attitude change will be inverse (as dissonance theory would predict) if there has been initial behavioral commitment, but it will be direct (as reinforcement theory would predict) in the absence of commitment to the discrepant behavior.

I.V. - Choice (free choice/no choice)
Incentive (50¢/$2.50)

D.V. - Attitude change

Manip - Ss were 50 male undergraduates who reported individually to E1 at the close of the academic semester. E1 informed them that he was running 20 minutes behind schedule and they would have to wait. He then told them that a graduate student had requested his help in locating Ss. S was informed that graduate student had a large grant and was paying 50¢ ($2.50) to any person who helped him out. Ss in high-choice condition were told they could go help out the graduate student but that E did not wish to obligate S in any way. Ss in no-choice condition were told to report to the graduate student. When Ss reported to E2 they were told he was in Sociology Dept. He asked them to write a counterattitudinal essay on a topic which had been pretested on another sample of students and found to be highly salient. S was informed that university administration would utilize essays to decide on proper policy. E2 promised them 50¢ ($2.50) for writing essays. E2 maintained the high-choice/no-choice manipulation. E left room while Ss wrote for 15 minutes. After writing essay Ss were paid and sent back to E1. They were given a 10 item attitudinal questionnaire and a short questionnaire to check on effectiveness of the manipulations. Ss were asked if they saw any connection between the two studies and debriefed. Control Ss were kept waiting in E1's room for 15 minutes and completed the 10 item questionnaire.

Topic - That the university should not establish a one week study period between the end of the semester and beginning of exams.

Results - Main effects were not significant. There was a significant interaction effect with a reinforcement effect in the no-choice condition and a dissonance effect in the high-choice condition.
Mean for control Ss was quite close to mean for those conditions in which no change was predicted (high pay-high choice and no choice-no pay).

Analysis of the essays indicated that no-choice groups wrote longer and more persuasive essays with the no-choice/high pay Ss writing significantly more persuasive essays than no-choice/low pay Ss.
H  - A. At the level of simple commitment to engage in belief-discrepant behavior:

1A: Among those individuals given authority-based justification, open-minded individuals will demonstrate greater attitude change than closed-minded individuals.

2A: Among those individuals given reasons-based justification, closed-minded individuals will demonstrate greater attitude change than open-minded individuals.

B. After encoding belief-discrepant arguments:

1B: Among those individuals given authority-based justification, closed-minded individuals will demonstrate greater attitude change than open-minded individuals.

2B: Among those individuals given reason-based justification, open-minded individuals will demonstrate greater attitude change than closed-minded individuals.

I.V.  - Dogmatism
Justification (authority-based - reason based)
Time of measurement (after commitment - after encoding)

D.V.  - Attitude change

Manip  - Ss were pretested as to potential sources for the authority-based justification manipulation and reasons, issues, and open or closed-mindedness. About 3 weeks later Ss were approached in their classes, received a booklet containing the instructions, a request for a counterattitudinal essay, and justification (positive source or sufficient reasons determined from first phase of study). In the simple commitment condition the post-test attitude instrument was presented prior to the request to encode arguments, while in the other condition the attitude measurement was obtained after encoding.

Topic  - Elimination of student draft deferments.
Results - n.s. Those Ss who encoded belief-dis repant arguments did undergo sig. greater attitude change than those who simply committed themselves to the task.

Probs - Failure to produce adequate justification for task.

H - When a person engages in role playing in a classroom setting before a large group of classmates, defending an assigned point of view on a controversial issue, and perceiving no new information other than that expressed in the spontaneous arguments of the other role players, his opinions about a political issue not strongly anchored in group norms and regarded by him as controversial, will change in the direction of the view he defended.

I.V. - role playing
initial attitude (congruent - discrepant)

D.V. - Attitude change

Manip - Ss took pretest and ten days later took part in the role play. Ss participated with seven other role players -- 4 con and 4 pro topic. Role play lasted for 15 minutes. Of the 4 arguing against the topic ½ were arguing counterattitudinal and the others congruently. The other students in class observed the role play.

Topic - Need for a strong central world government.

Results - n.s.
Observer data indicates that persons arguing for their own point of view were more convincing than those arguing against their own point of view.

Probs - Observer data indicates counterattitudinal role players contributed little to discussion.

H

- A high subjective appraisal of one’s performance should create an expectation of audience disapproval when a privately assigned subject addresses a disagreeing audience.

- A high subjective appraisal of one’s performance should create an expectation of audience approval when a publicly assigned subject addresses an agreeing audience.

- A low subjective appraisal of one’s performance should create an expectation of audience approval when a privately assigned subject addresses a disagreeing audience.

- A low subjective appraisal of one’s performance should create an expectation of audience approval when a publicly assigned subject addresses agreeing audience.

I.V.

- Audience attitude (agreement - disagreement)
- Commitment (public - private)
- Evaluation of performance by subject (high - low)

D.V.

- Attitude change

Manip

- One to two weeks after they took a pre-test, Ss reported to E, who gave him five minutes to prepare his talk. ½ Ss were told E would introduce them by name and indicate they had been arbitrarily assigned this topic, while others were told they would be introduced by name and E would indicate they were presenting their own opinions. ½ Ss were told that on a previous survey 70% of audience agreed with their viewpoint in the speech while the others were told that 90% of the audience disagreed with the viewpoint of their speech. Ss then taped up to a 6 minute speech and completed the post-experimental questionnaire.

Topic

- Withdrawal of draft deferments for college students.

Results

- n.s.

S’s impressions of his audience influenced relationships between quality of performance and attitude change.

H - Among persons demonstrating identical amounts of initial attitude change, persons who have participated in counterattitudinal advocacy will demonstrate more resistance to change following exposure to counterpropaganda than persons who are passive recipients of a persuasive message.

Persons who engage in counterattitudinal advocacy will demonstrate more attitude change in the direction of the position advocated than persons who merely read the persuasive message.

I.V. - Amount of attitude change (high, moderate, low)
Type of role play (writing a message vs. reading a message)

D.V. - Attitude change (resistance to counterpropaganda)

Manip - On basis of pretest results, an issue was chosen which was counterattitudinal for Ss. Ss were randomly assigned to experimental or control groups. In the active role play condition Ss wrote essays using sentences constructed by E in which they inserted words of established high language intensity. In the passive role play condition Ss read a message consisting of the same sentences used in the active condition with the highly intense words inserted by E. Control Ss completed the post-encoding and posttest without any intervening manipulation. After Ss in the experimental conditions had written (read) the counterattitudinal message they completed the post-encoding questionnaire. They were then given the counterpropaganda to read. The posttest for all groups was given under a second experimenter guise.

Results - H$_1$ non sig. Although Ss who demonstrated high degree of attitude change in both conditions of role play showed significant resistance to the counterpropaganda. Ss in the moderate attitude change condition showed no significant difference between pretest and posttest attitudes.
Ss in the low attitude change showed a significant boomerang effect.

H$_2$ non-sig.

Topic - Mandatory on-campus housing for all students.
Probs - Study was run during summer session with a large number of middle-aged teachers as subjects. Greater length of time is needed between manipulations.

H - Subjects receiving role-rewards will show more attitude change than subjects receiving content rewards.

I.V. - Reward (content - role)

D.V. - Attitude change

Manip - Ss took pretest and asked to volunteer to speak in a debate. S came into room with two other Ss (E's confederates). S was forced to volunteer for the counterattitudinal position since confed's did not. S gave speech. Ss in content reward condition were told that their arguments were excellent but that their manner of presentation was average or below. Ss in role reward were told that their arguments were average or below those heard by E while their presentation was the most convincing that he had ever heard.

Topic - Capital punishment

Results - sig.

H - Given approximately equal initial change, greater persistence of opinion change and more subsequent discussion and reading about the topic would be predicted for those subjects who composed a persuasive argument than for those subjects only reading a persuasive argument.

At a delayed interval subjects in the active-participation condition will be better able to recall the issue and the side supported by them than their counterparts who had read a persuasive passage.

The order of opinion measurement and recall (i.e. opinion recall versus recall opinion) in the delayed questionnaire will have an effect so that being asked to recall the topic and side taken prior to stating opinion will facilitate agreement by reminding the subjects of the arguments they had previously read or written.

I.V. - Type of role play (active participation/passive participation)
Order of opinion measurement

D.V. - Attitude change

Manip - Ss were members of a class in Educational Psychology, the majority of whom were females. In first session ½ Ss were asked to read a persuasive message dealing with a controversial topic and underline in each paragraph the shortest clause which epitomized the whole point being made. Ss were allowed 8 minutes to complete the task. Ss in writing condition were to organize their thoughts and write a strong, convincing argument supporting the side indicated on a controversial topic. Within the six experimental conditions Ss only wrote or read on one issue and completed a questionnaire on the other two issues. Ss then completed an opinion questionnaire. Six weeks later E again came to classes and administered another questionnaire. Ss were randomly assigned to either recall the topic and position taken before stating opinion, or, stated their opinion before recalling topic and arguments utilized.

Topic - Puerto Rico should be admitted to the Union as the 51st state. Courts should deal more leniently with juvenile delinquents. The Secretary of State should be elected by the people, not appointed by the President.
Results - $H_1$ significant. Active participants demonstrated more change, and indicated they had discussed and read about the topic more often. Ss in active condition showed a delayed sleeper effect in that they became progressively more favorable towards the issue.

$H_2$ - after six weeks the active participants differ significantly from the control while the passive recipients have regressed.

$H_3$ - significant.

H - Persons encoding counterattitudinal messages for a known audience will report greater attitude change toward the position advocated than persons encoding counterattitudinal messages for an unknown audience.

Persons encoding counterattitudinal messages for an uncommitted audience will demonstrate greater attitude change toward the position advocated than persons encoding counterattitudinal messages for a committed audience.

I.V. - Audience commitment
Knowledge of audience

D.V. - Attitude change

Method - Two weeks after an attitude pretest, Ss were randomly assigned to belief-discrepant essays for a known/unknown, committed/uncommitted audience. ½ Ss were told that the target audience would be their fellow students at GMI (known audience) while the other half were told that the target audience would be students at MSU (unknown audience). Ss in the committed condition were told that the target audience was strongly opposed to the issue. Ss in the uncommitted audience condition were told that the target audience was undecided on the issue. After completing the essay Ss were given the posttest questionnaire. Manipulation checks were used to discover awareness of audience variables. Control Ss completed the posttest questionnaire only.

Topic - In favor of a mandatory military service for all high school graduates.

Results - Sig. for both hypotheses.

H - Low machiavellian subjects will experience greater attitude change than high machiavellians after writing a counter-attitudinal essay. Intrinsically religious subjects will experience greater attitude change than extrinsically religious subjects after writing a counterattitudinal essay.

I.V. - Machiavellianism
  Religious orientation

D.V. - Attitude change

Proc - Subjects were asked to write belief-discrepant essays advocating two years of mandatory military service for all men before being accepted by a college.

Topic - Mandatory military service for all men before being accepted for college.

Results - $H_1$ significant
  $H_2$ not significant
H - The self-perception hypothesis is not adequate to explain all cognitive dissonance results.

Experiment I: a replication of Hunt and Miller (1968)

Specific hypothesis: The high dogmatic O-Ss will show significantly more dissonance reducing behavior than low dogmatic O-Ss.

I.V. - Essay position (favor - oppose disarmament)
Dogmatism (high - low)

D.V. - Attitude change

Manip - O-Ss completed the short form of the dogmatism scale. Scales were scored and O-Ss were arranged in ascending order from low to high dogmatism. O-Ss were then assigned alternately to either the favor disarmament condition or the oppose disarmament condition. One week after O-Ss completed dogmatism test, E returned to classroom and distributed the descriptions of the Hunt and Miller study. These descriptions eliminated initial opinions of P-Ss since Bem argues these are not salient. O-Ss then completed a questionnaire which included their perceptions of the P-Ss attitude.

Topic - Disarmament

Results - No significant effects were found.

The self-perception hypothesis is not supported by the obtained results.

**H** - The greater the physical effort required in publicly reading or understanding a communication discrepant from one's own attitudes, the greater will be the resulting dissonance and consequent attitude change in the direction advocated by the role performance.

**I.V.** - Effort (length of delayed auditory feedback)

**D.V.** - Attitude change

**Manip** - Exp. 1: Ss read counterattitudinal essay while hearing varying amounts of delayed auditory feedback.

Exp. 2: Ss read or role played a counterattitudinal essay while receiving long or short intervals of delayed auditory feedback.

**Topic** - Exp. 1: grading system

Exp. 2: Red China

**Results** - Sig.

H - The greater the physical effort required in publicly reading or understanding a communication discrepant from one's own attitudes, the greater will be the resulting dissonance and consequent attitude change in the direction advocated by the role performance.

(Study sought to assess alternative theoretical interpretations which could account for the greater efficacy of the high-effort treatment and to replicate earlier finding -- Zimbardo, 1965).

I.V. - Effort (no delay, .2 second delayed auditory feedback, white noise averaging 75 decibels).

D.V. - Attitude change

Manip - Two studies are reported.  Exp. 1. Ss who had completed a pre-test 5 weeks previously reported to lab where E explained that authors were in process of testing out some electronic equipment to be used in investigating some dimensions of speech behavior.  S began by reading a speech which explained nature of project hearing through the earphones first his own voice with no delay, then the .2 second delay, and finally the white noise.  S then proceeded to read a poem followed by seven speeches both pro and con his original positions.  The S ended with another poem.  Attitudes were measured at the completion of the task.  S had spoken on three dissonant topics and was measured on four others.  S was also asked to evaluate their satisfaction with their performance, the degree of sincere role playing, the physical and psychological difficulty of the task, and recognition of the speeches used in the study.

Exp. 2: Volunteer Ss were recruited for a study of the effects of feedback on stuttering.  They completed a series of attitude scales prior to experimental manipulation.  Each S individually tested quietly read a counterattitudinal speech, then read it aloud under experimental conditions.  In low effort group the auditory level of feedback was low and the delay interval longer than optimal disruption time (1.0 second).  In high effort group the volume was high and delay interval optimal (.2 second).  After completing recognition-learning test and other manipulation checks the Ss were told the session was over.  However, they were also informed that a grad student in Speech would like to interview them.  They met the Speech E in the next room who discussed the importance of feedback on speech
making with them. As she finished the Speech E told Ss she was serving on a committee interested in the topic they had just given a speech on. She asked them if they would be willing to spend some time talking on the telephone with people who were interested in discussing the topic. E indicated her committee was working to legalize drugs (if S was against it) and to prohibit it (if S was for it). When Ss made a commitment to invest a given amount of time they were debriefed and paid.

Topic - Exp. 1: Seven attitude topics -- "the summer college vacation should be shortened 1 month, college students should serve 1 year in military service, Red China should be kept out of the U.N., alphabetical grades should be used rather than numerical grades, communists should not speak at university campuses, America should stop nuclear testing, and college students should be completely independent from their parents.

Exp. 2: Legality of the use and sale of non-habit-forming psychedelic drugs.

Results - Exp. 1: Communications were moderately well learned by Ss with those in the white noise condition producing the best learning of the content of the communications.

Role playing under delayed auditory feedback required more physical and psychological effort than either white noise or normal feedback.

The high-effort-delayed feedback condition produced the greatest attitude change followed by the white noise condition and the normal feedback condition producing the least amount of attitude change.

Exp. 2: Significantly more Ss in the effortful role playing condition agreed to help the experimenter than those in the low-effort condition. Similarly, the mean amount of time for high-effort Ss was 1.5 hours as compared to 5 minutes for other subjects. No differences in learning were discovered between the groups. Again the high-effort condition was judged most difficult by the subjects.