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THE UNIVERSITY OF ALBERTA

DISSONANCE OR SOCIAL CONSEQUENCES

by

ELLEN MARY JASTREBSKE

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Dissonance or Social Consequences?" submitted by Ellen Mary Jastrebske in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

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Abstract

Cognitive dissonance theory predicts that when people are induced to say something contrary to their private beliefs, they experience a state of motivating disturbance which must be resolved. The purpose of this study was to examine whether the cognitive dissonance evoked within a forced-compliance paradigm is the result of a belief-behavior contradiction or of the anticipated social consequences from the deceived victim. Examination of dissonance theory predictions as applied to a negative task setting suggested that dissonance can have its source in either the belief-behavior discrepancy or the social consequences. To minimize unfavorable consequences and also to permit separation of the source of dissonance arousal, two levels of a positive task, which was pleasant and enjoyable, were used. These two positive task levels involved a positive task experience which was followed by a counterattitudinal statement only, or by both counterattitudinal statement and information regarding the reaction of the next subject to the statement. Subjects were also offered either high or low justification for agreeing to perform the counterattitudinal advocacy.

No differences in predictions were made for the negative task regardless of whether dissonance was based on the belief-behavior conflict or the anticipated social consequences. Both of these appeared to be inherently implicated in a negative task experience. Post-counterattitudinal advocacy opinions after higher levels of justification were expected to show less favorable task evaluations than after lower levels of justification. Several possibilities existed with counterattitudinal advocacy of a positive task. If the belief-behavior discrepancy was sufficient to arouse dissonance, both positive task conditions were expected to diminish favorability of task evaluations, the evaluative decreases being greater after low than high justification. If the source of the disso-

nance was the expected reactions from the deceived target of the advocacy, then only the positive task followed by feedback regarding the victim's reaction was expected to show dissonance effects. Task evaluations in this condition should be less favorable, especially after low rather than high justification. Still a third possibility suggested that dissonance effects (changes in task evaluations congruent with the counterattitudinal advocacy) would not result with the positive task conditions. Instead, subjects could use some other mode to resolve any disturbance they experienced, this mode being a perceived increase in the degree of favorableness with which the already pleasant task was regarded. This mode of conflict resolution is essentially a denial of possible grounds for negative evaluations and attributions by the deceived target, and following a positive task, may be preferable to the mode predicted by dissonance theory.

The major significant finding was that after counterattitudinal description, subjects shifted their task evaluations in a more favorable direction regardless of initial task evaluation. The reason for this increased task liking was speculated to be either a positivity norm, or differing interpretations of the counterattitudinal "lying" depending on the perceived social consequences, or both. Supplementary measures offered limited support for the second notion by suggesting that "lying" was viewed and interpreted differently depending on the expected consequences. Task evaluations following low justification were generally more supportive of dissonance theory predictions than those following high justification. High justification appeared to increase the salience of the counterattitudinal position and its implied consequences without specifically affecting the direction which resolution of the conflict took. Rather, high justification showed gneralization from the initial task setting.

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People often find it necessary to perform acts which are not in accord with their beliefs and attitudes. Since performance of such reltively disliked actions is frequently necessary for the attainment of personal and group goals, a body of research has developed which examines the performer's beliefs subsequent to his performing a belief-discrepant act. People usually can be induced to act counter to their beliefs if they are given sufficient reasons for doing so. Consequently, the research has examined the effects of different degrees of justifying circumstances needed to induce the behavior. Inducements offered for performing the act have included monetary ones as well as nonmonetary ones, such as doing the action for beneficent reasons.

Cognitive dissonance theory, proposed by Festinger in 1957, has particular application for situations where people perform counterattitudinal actions. Acting counter to one's beliefs is hypothesized to produce a state of tension or conflict which the person strives to resolve. In dissonance theory terms, this conflict is between two discrepant cognitions: "I believe X", and "I have publicly stated I believe not-X". The conflict is therefore between the person's awareness of two simultaneous and contradictory cognitions, his private belief and overt behavior. This belief-behavior discrepancy presumably leads to a state of tension or dissonance according to both the original formulation (Festinger, 1957; Festinger & Carlsmith, 1959) and later dissonance theory formulations (viz. Brehm & Cohen, 1962).

The effects of the dissonance-causing discrepancy have been examined within a "forced-compliance" paradigm which had been originally defined by Festinger (1957, p.86) as public compliance behavior performed without underlying private acceptance. The question tested in this paradigm is under what circumstances do a person's private beliefs

become more aligned with his overt or public behavior even though he was "forced" or induced to perform the behavior under external pressure. The forced-compliance paradigm has always used a task which was unfavorably regarded by the person. In the usual dissonance paradigm, the subject experienced a negative task and then has been induced to describe it in favorable terms. Following the induction of the counterattitudinal description, his beliefs towards the task were again measured. The usual, although not uncontested finding by dissonance theory researchers has been an increase in task liking, or a shift in private beliefs to make them more congruent with the public counterattitudinal expression of them (cf. Festinger & Carlsmith, 1959; Brehm & Cohen, 1962; Carlsmith, Collins & Helmreich, 1966; Linder, Cooper & Jones, 1967).

Dissonance theory has assumed that the inconsistency between the person's beliefs and behavior motivates him to adjust his private beliefs and thereby realign them with his public behavior so that the two expressions of beliefs are consistent or consonant. Closer examination of what has motivated the performing subject to shift his private expression of beliefs suggests other possibilities. First, the subject has been obligated to "lie" about what he considers to be the reality of the task. This misrepresentation connotes more than a simple underlying belief-behavior discrepancy. In addition to being inconsistent, it is likely that the subject has also performed an action which is incongruent with either his self-image (cf. Deutsch, Kraus, & Rosenau, 1962), or accepted cultural mores or both. This involves at least three cognitions, two of which are incongruent with the third. That is, (1)I believe X, (2)I have just stated or performed not-X, and (3)I am not the kind of person who lies or misleads others, or perhaps, lying is not a culturally or personally acceptable behavior. The first and third

cognitions are both at variance with the second cognition. To resolve this discrepancy, the relations of these cognitions may require consideration of a fourth cognition, "how I think the receiver or victim of my counterattitudinal statement will view the task".

Thus, in the forced-compliance paradigm, the motivation underlying the subject's attempts to resolve the belief-behavior discrepancy seems due partly to the subject's concern with the expected consequences of the counterattitudinal statement for the target or victimized receiver. When one participates in a disliked activity, and is then asked to describe it to a peer (the usual target or victim of the counterattitudinal statement), it is assumed that the other person will react to the task as one's self did. Therefore if the subject himself disliked the task, he would probably expect a peer to dislike it as well. The question then arises, given the subject's favorable counterattitudinal description of the task, how does he expect his victim to react to him and his counterattitudinal statement if the victim shares his private evaluation of the task?

In the case of an unpleasant activity, the victim is led by the subject to expect a pleasant experience. But the subject also expects the victim's reaction to the task to match his own which is unfavorable. Therefore, the subject may reasonably expect that the victim will evaluate him unfavorably. It is, after all, rather vexing and disappointing to be "led down the garden path" and to have one's hopes for a pleasant experience sharply let down. This expectation may be all the more emphatic for the subject because "lying" has strong connotations of cultural disapproval attached to it.

It appears then that more than just a simple belief-behavior contradiction, the presumed defining feature of dissonance as a motivating disturbance, instigates opinion

changes towards the task. The subject also has to resolve the results of the victim's assumed similarity of reaction to the task, and therefore the victim's subsequent evaluations of both the counterattitudinal statement and its source. The latter evaluations involve anticipated reactions of disapproval and other negative connotations being attributed to the subject by his victim. The use of a negative task in the forced-compliance paradigm thus has involved at least three possible sources of motivating disturbance or dissonance which need to be resolved following the counterattitudinal advocacy. These are (1)personal or internalized cultural standards against "lying", (2)the actually perceived belief-behavior discrepancy, and (3)the anticipated consequences of the misrepresentation or "lie" from the victim of the counterattitudinal statement. The usual definition of the source of dissonance as a motivating disturbance in the research (viz. Festinger, 1957; Brehm & Cohen, 1962) has been the second one. However, this definition implicitly includes the first definition even though it may not operationally specify the first definition. The third definition has not been considered in the literature except for limited reference in the Collins and Helmreich (1965) study and in Pepitone's criticisms of dissonance theory (1966).

As a motivating source of disturbance, one's standards against lying are part of the forced-compliance paradigm by definition. However, the methodological use of a negative task in forced-compliance studies has raised an interesting theoretical question: is the source of the subject's dissonance or motivating disturbance the belief-behavior discrepancy, or is it the anticipated consequences of the lying from the victim of the deception? Both of these are implicated and thereby confounded in counterattitudinal descriptions of a negative task. To separate these two possible sources of dissonance, a task is

required which can be described counterattitudinally but which presents minimal possibility of negative attributions and evaluation (that is, negative consequences for the victim). The use of a positive task which was enjoyable and interesting in a counterattitudinal paradigm is an example of such a task.

Since a positive task has not been used in the forced-compliance paradigm, only speculations regarding the results of such a study are possible. Because cognitive dissonance theory does not deal with the variable of type of task, predictions from this theory are the same for both negative and positive tasks. Therefore, when a pleasant, enjoyable task is counterattitudinally described as being distasteful and unpleasant, subjects should shift their attitudes towards the task to align them with their counterattitudinal descriptions. A pleasant, enjoyable task should thus be less positively evaluated following counterattitudinal advocacy. Subjects should decrease their liking of the task following the counterattitudinal description so as to regard it more negatively or unfavorably.

However, counterattitudinal description of a positive task may not lead the subject to expect the same reaction from his victim as does such a description of a negative task. Whereas negative personal evaluations from the victim are expected with the latter task, the subject may assume that the victim will enjoy the positive task notwithstanding his counterattitudinal description of it. If the victim has a positive experience, he should be less inclined to attribute negative evaluations to his deceiver. This may be due, first, to a simple generalization effect where the victim is inclined to evaluate things in general more favorably following the positive task experience. Secondly, because the victim's counterattitudinal expectancy is presumably disconfirmed, the victim will be

pleasantly surprised, and relieved following the positive task experience. The subject may expect his misdemeanor to be "forgiven" or not taken seriously. Application of similar reasoning to the negative task suggests that the victim will be vexed at disconfirmation of his expectancy, and consequently, may attribute malevolent intentions to the deceiver. The deceiver can more certainly expect to be perceived quite negatively. Following the positive task, even if the subject expects the victim to label his counterattitudinal statement as a lie, he still also expects the victim's experience to disconfirm the resulting expectancy. Therefore, when the task experience is assumed to be a pleasant one for the victim, it entails no negative consequences. Disconfirmation of the counterattitudinal statement with a positive task, even if the statement is perceived as a lie, can subsequently be viewed as a joke, thereby rendering the counterattitudinal behavior an amusing "white" lie.

Thus, it appears that there are at least two reasons for expecting different consequences for the deceived victim after a pleasant task than after an unpleasant one. First, the expected after-effects of pleasant surprise and relief are clearly different from expected after-effects of disappointment, vexation, and perhaps, anger. These after-effects may cause a "halo" effect where no blame is attributed to the misinformer. Secondly, the expectation of the victim's perception of a "white" lie and an amusing joke also imply different consequences from expecting the victim to perceive deliberate, and perhaps malevolent misrepresentation by the deceiver. Both of these reasons lead to the expectation that subjects will not shift in the direction of the counterattitudinal statement following a positive task. Instead, either no opinion shifts will occur, or any shifts that are observed will be positive increases which go counter to the coun-

terattitudinal statement. Such shifts counter to the counterattitudinal statement may occur because they represent an easier mode of resolving the counterattitudinal conflict than does the shift in line with the counterattitudinal statement. The use of such an alternative mode of dissonance reduction will be elaborated later in this discussion.

Amount of justification for performing the counterattitudinal statement is a significant factor in determining changes in task evaluations. The nature of the relation between magnitude of justification and attitude changes following performance of the counterattitudinal statement has been the subject of considerable controversy. In 1957, Festinger's cognitive dissonance theory predicted that the less justification a person has for performing a counterattitudinal act (i.e. just enough justification to induce the behavior), the greater will be the attitude change. According to Festinger, dissonance associated with counterattitudinal behavior decreases as the magnitude of perceived justification for performing the act increases. Conversely, with decreases in magnitude of justification, dissonance and the motivation to reduce it increase. On the other hand, incentive theory (Janis & Gilmore, 1965) and consistency theory (Rosenberg, 1965) have predicted that the greater the incentives (that is, justifications) associated with one's behavior, the greater will be the change in underlying attitude. Thus, two opposing sets of predictions about the effects of different levels of reward for counterattitudinal advocacy have been advanced in the literature.

According to consistency theory, being asked to publicly advocate a counterattitudinal viewpoint is rather unstabilizing to the person's cognitions or private views (Rosenberg, 1965). The "expectations of payment for counterattitudinal advocacy may operate as an incentive to

generate qualitative arguments in support of the new cognitions" (the new cognitions being the behavioral segments) while "receipt of payment may operate as a reinforcement" to foster "internalization of the counterattitudinal cogntions" (Rosenberg, 1965, p. 39). Janis and Gilmore (1965) argued in a similar vein with their "incentive" theory. Accepting the task of advocating a counterattitudinal position motivates the person to think of arguments in favor of the counterattitudinal position while simultaneously suppressing or temporarily suspending consideration of arguments not in favor of the counterattitudinal position. That is, accepting the counterattitudinal task advocation induces a motivational state in the person which is task-oriented. This results in "biased scanning" of one side of the arguments only, namely those arguments favoring the counterattitudinal position. Under these conditions of increased attention to the pro-counterattitudinal position arguments, chances of accepting the counterattitudinal arguments are enhanced (Janis & Gilmore, 1965, p. 17-18).

The predictions following from both cognitive dissonance theory and incentive and consistency theories have assumed the presence of a state of motivational conflict which is created when the subject undertakes action contrary to his private beliefs. To reduce this state of motivational conflict or dissonance, the mode most preferable and the one most likely to be selected is the mode requiring the least distortion of reality, or the least effort. Within the forced-compliance paradigm, it presumably is difficult to deny the counteratttitudinal content or dissociate oneself from a public act. An easier mode of counterattitudinal conflict reduction is changing one's private beliefs to more closely approximate the advocated counterattitudinal position, and this mode has been the one most commonly employed and examined within

the forced-compliance paradigm.

However, if one has ample justification to perform the counterattitudinal behavior, cognitive dissonance theory has postulated that the counterattitudinal conflict and associated tension are minimized. There is less need to change one's beliefs, and the least belief change should be observed under circumstances with high justification. Alternatively, greater conflict and hence, greater need to reduce it has been found under circumstances of low justification (but just sufficient to induce the behavior). That increased justification decreases degree of attitude change has been replicated by a number of researchers (i.e. Cohen, 1962; Nuttin, 1966; Carlsmith et. al, 1966; Linder et. al, 1967). The finding is not nevertheless an unquestioned one (cf. Elms & Janis, 1965; Janis & Gilmore, 1965; Rosenberg, 1965).

As indicated earlier, there are at least two possible sources motivating evaluations of a counterattitudinally described negative task. One of these is the expected reactions of the victim of the deception. Given expectancies of negative attribution by the victim following the unpleasant task, the subject clearly has little reason to perform the counterattitudinal behavior under low justification. Failing to have a good reason provided for him externally, the subject must justify his counterattitudinal behavior or invent a reason for it. This rationale leads to the prediction that the easist solution is to rationalize his counterattitudinal behavior by changing his perception of the task. The negative task should then be seen in more favorable terms, as perhaps not "so bad" on second thought, or of scientific value. With high justification for the counterattitudinal advocacy, there is less need for such rationalization because part of the blame is attributable to external circumstances, such as the experimenter who offered the justification. Further-

more, offering high justification for performing an act may increase the salience of the behavior with which the justification is associated (Pepitone, 1966). Justification may serve as a situational cue to emphasize the activity with which it is associated. Hence, the subject is obligated to pay more attention to the activity. Directed by this focusing of attention, the subject considers more carefully the implications of the behavior. In a forced-compliance paradigm, the justification is associated with the counterattitudinal behavior, and after a negative task, may enhance the subject's awareness of the unsavory kinds of consequences and evaluations he can anticipate from his victim. Therefore under high justification, the subject is more cognizant of the implications of his behavior and may feel more constrained to do something about them. A more frank evaluation of the task may be one way of dealing with the situation since part of the blame is externally attributable. Less shifting of opinion would be expected than under low justification. Following counterattitudinal description of an unpleasant task, then, regardless of whether the source of the dissonance is the belief-behavior contradiction or the expected consequences of the counterattitudinal behavior, the predictions in relation to differing levels of justification are the same.

Different predictions are advanced for a positive task in relation to justification levels depending on whether the source of dissonance is the belief-behavior discrepancy, or the anticipated social consequences. In dissonance theory terms, presumably increasing justification for counterattitudinal description of a positive task will decrease the amount of dissonance created by the counterattitudinal behavior. If the source of tension is the belief-behavior discrepancy, low justification should effect maximum changes in the favorability of the beliefs

about the task. A positive task should thus be viewed considerably less favorably following counterattitudinal behavior. Under high justification, having less dissonance to resolve, the subject should decrease favorable evaluations less than under low justification. Extending dissonance theory notions to the salience of justification notions proposed by Pepitone (1966) suggests that high justification increases the salience of the counterattitudinal statement, and as a result, heightens the need for resolution of the belief-behavior discrepancy. Although less dissonance may be created with high justification because justification is consonant with the counterattitudinal behavior, the increased attention that high justification focuses on the discrepancy may still lead to somewhat less favorable task evaluations.

Somewhat different predictions follow if the expected consequences of the counterattitudinal description are the source of the dissonance following a positive task. Since the expected task evaluation by a peer is believed to be similar to one's own evaluation, the subject anticipates a positive task experience for his deceived victim. Under low justification, the subject may exhibit little or only very small changes in task evaluations. Because the subject expects the victim to experience no negative consequences, these changes should be minimal. To the extent that there are changes, these should be positive shifts towards evaluating the task even more favorably than at first. This is because although the subject expects his victim to be pleasantly surprised, he also may be slightly apprehensive or doubtful about his victim's reactions to his "lie". Although this is a "white" lie, it is a lie nonetheless. The subject may then slightly increase his already favorable task evaluations as a self-defensive protest or restatement of his position. By doing so, he in effect disclaims that the victim has any reason to

blame him or challenge his counterattitudinal behavior, since the task is a very positive one and his behavior caused no harm. Under high justification, the rewards for the counterattitudinal behavior should heighten the situational salience of the counterattitudinal behavior. This obligates the subject to weigh its consequences more fully than under low justification. The subject should thereby increase his self-defensive perception of the role of his counterattitudinal behavior and correspondingly increase his over-statement of the favorable nature of the task. This suggests that increased salience of the counterattitudinal behavior under high justification may simply increase the amount of self-defensive rebuttal and disclaiming of any harmful effects to the victim. Consequently, an "incentive" kind of relationship is predicted if the source of disturbance following a positive task is the consequences of the counterattitudinal behavior to the victim. Increasing the amount of justification offered to the subject for the performance of the counterattitudinal behavior should also increase the extent to which the already positive task will be even more favorably evaluated.

A problem inherent in the comparison of a negative with a positive task is how to equate the consequences of the two kinds of tasks. The negative task intrinsically contains expectations of negative consequences which the positive task does not have. This is because outright deception is linked with more malevolent intentions than is a "white" lie or joke. Perhaps, in order to arouse dissonance with a positive task, it is necessary for the subject to know the effect of his counterattitudinal advocacy. Knowledge that the counterattitudinal statement produced negative consequences by apparently depriving the victim of an opportunity for a pleasant experience may be needed to produce dissonance. The counterattitudinal

statement by itself may be insufficient as a source of dissonance arousal because it may not be an expected cause of negative consequences if the victim is expected to enjoy the task in spite of the counterattitudinal description. However, if the subject is provided with information that the victim has seemingly accepted the counterattitudinal description and is anticipatively reacting accordingly, the subject has less leeway to defend his behavior by disclaiming possibilities of negative attributions. If such information is necessary to arouse dissonance, testing the positive task under two levels as (1) only counterattitudinal behavior, and (2)counterattitudinal behavior followed by information about its reception by the victim would also permit separation of the source of dissonance arousal. Since the "white" lie qualification may be construed as providing less potential for dissonance arousal under the positive task than under the negative task condition, it was assumed that maximum dissonance arousal was possible under at least one of the positive task levels, namely that of providing information to the subject about the consequences of his counterattitudinal behavior for the victim.

This study was thus concerned with investigating two questions: (1)do dissonance effects occur within the forced-compliance paradigm when using a positive task, and (2)does the source of dissonance within a forced-compliance paradigm reside in the belief-behavior contradiction, or in the subject's reactions to the anticipated social consequences of the counterattitudinal behavior. Considerations of counterattitudinally described negative tasks led to the conclusion that such a task inherently involves both sources of dissonance listed in (2) above. To separate the effects of these, the design incorporated two levels of a positive task: one used only counterattitudinal advocacy, and another used both counterattitudinal

advocacy and feedback to the subject regarding the victim's reception of the counterattitudinal statement. These two positive task levels were expected to allow comparisons regarding the source of the dissonance.

Specifically, if the source of the dissonance was the counterattitudinal advocacy, the negative task was expected to show less shift in attitude (towards more favorable evaluations) with increasing levels of justification. The positive task was expected to yield less favorable evaluations under both levels of justification, although the decline would be greater when the positive task was followed by both counterattitudinal advocacy and feedback regarding its immediate consequences. This is because committment to the counterattitudinal statement is presumably augmented in the latter condition. Relative to levels of justification, the positive task with low justification was expected to induce less favorable evaluations than with high justification.

Alternatively, if the source of the dissonance was the anticipation of consequences associated with the counterattitudinal behavior, different relations were expected under each of the positive task levels. No differences in evaluations of the negative task were expected because, as already indicated, the negative task appears inherently to contain social consequences regardless of whether dissonance is aroused by the belief-behavior discrepancy or the anticipated consequences for the victim. Thus, the negative task was expected to show the usual effect of less change in task evaluations relative to increasing justification. However, if dissonance has its source in anticipated social consequences linked with the counterattitudinal behavior, then the positive task followed only by the counterattitudinal behavior may have no negative consequences associated with it. Subjects would therefore have no reason to vary their evaluations of the task here,

since they may experience no dissonance. In this event, only the positive task followed by counterattitudinal behavior and feedback regarding its consequences should induce changes in task evaluations. The task evaluations in this condition should show declines in the favorability with which the task is viewed. Further, this positive task condition was expected to show more unfavorable task evaluations with low justification than with high justification.

Still a third possibility suggested that dissonance results (i.e. shifts in task evaluations congruent with the counterattitudinal description of the task) would not apply to the positive task setting at all. Rather, subjects could employ a method of counterattitudinal conflict reduction other than that predicted by dissonance theory. Although subjects may or may not experience a disturbance resembling dissonance following counterattitudinal advocacy of a positive task, "lying" is culturally disapproved behavior. It was therefore assumed that any existing personal standards against lying would be present regardless of task setting. These standards should produce defensiveness in persons who have been induced to "lie" regardless of the reasons or circumstances for doing so. In addition, although the subject may not anticipate the same negative consequences from his victim (disapproval and negative personal evaluations) when the victim is expected to have a pleasant, enjoyable experience, the subject still does expect the victim to consider and evaluate the why of his counterattitudinal statement. (This is perhaps because of an assumed similarity of background where lying is fairly universally disapproved.) This discomfort regarding his counterattitudinal behavior may or may not be similar to dissonance. Assuming that this defensiveness can be incorporated under the rubric of "dissonance", the mode used to resolve the dissonance

after counterattitudinally describing a positive task can be different from the mode used after similarly describing a negative task. Subjects are assumed to choose the mode of disturbance resolution which is the easiest. In the case of a positive task, the uncertainty of the victim's reception of and reaction to the counterattitudinal statement is perhaps most easily resolved by defensively emphasizing one's position. This implies increasing further the evaluations of an already positively evaluated task in a defensive over-statement of one's position. This is an *a priori* kind of denial of the existence of possible grounds of negative attributions or blame for the victim. Being provided with the immediate consequences of the counterattitudinal behavior in the case of the positive task followed by both counterattitudinal behavior and feedback can result in some increase of this defensive over-statement of positivity over that present with a positive task followed only by counterattitudinal behavior.

Such a method of disturbance resolution appears less feasible for the disturbance following a negative task. It is difficult to disclaim responsibility for misleading the victim when one really expects him to have a dull, boring experience. Instead of disclaiming responsibility as can be done with the positive task, it may be easier to distort or rationalize one's actual experience of the negative task, thereby changing it to make it more congruent with the counterattitudinal description.

In summary, regardless of the source of dissonance, the predictions for the negative task are the same. Changes in task evaluations were expected to be in accord with the counterattitudinal descriptions and greater under low than high justification. With a positive task, several possibilities existed. If dissonance effects occur with a positive task, one or both of the positive task conditions could show evaluation shifts following counter-

attitudinal behavior wherein the task will be evaluated more negatively. If a belief-behavior contradiction is sufficient to effect dissonance, then the positive task followed by both counterattitudinal advocacy only and counterattitudinal advocacy and feedback should show dissonance effects. If, alternately, dissonance is caused mainly by the subject's concern about the consequences of his counterattitudinal action, then only the positive task followed by both counterattitudinal behavior and feedback was expected to show dissonance results. It was also possible that the kinds of evaluative shifts predicted by dissonance theory would not be manifest at all in the case of a positive task. That is, changes in beliefs congruent with the counterattitudinal advocacy would not be the mode selected for reduction of whatever disturbance occurred. If changes in task evaluations congruent with the counterattitudinal description did not occur after a positive task, it was expected that both levels of the positive task should display "incentive" or reinforcement effects relative to increasing justification. That is, the easiest alternative for the subject may be to increase his liking of an already liked task, these increases being greater under high justification than low justification.

A 3 X 2 factorial design was used to test these notions. The factors were task-type and justification. Task-type levels were negative with counterattitudinal behavior, positive with counterattitudinal behavior only, and positive with counterattitudinal behavior and feedback regarding its immediate consequences. Justification levels were high (offer of a three-dollar payment) and low (no payment was offered).

In addition, it has been postulated that volition and committment are necessary for dissonance arousal (Brehm & Cohen, 1962). In the present study, both of these were kept constant at a high level. Volition was manipulated by seemingly permitting subjects a choice as whether or not to engage in the counterattitudinal behavior, and committment was manipulated by making it necessary to always give the counterattitudinal statement publicly, in a face-to-face encounter.

Method

Subjects

Subjects were 66 males randomly selected from the introductory psychology population. Subjects signed an appointment experimental booklet for specified times without knowing anything about the nature of the study. Participation in an experimental session entitled them to a credit towards their final grade.

Of the 66 subjects, 6 were not retained in the data analyses. These 6 subjects were distributed among the experimental conditions as follows: one was in the negative task with low justification condition, one was in the negative task with high justification condition, two were in the positive task with counterattitudinal statement only and low justification condition, one was in the positive task with counterattitudinal statement only and high justification condition, and one was in the positive task with counterattitudinal statement and feedback and low justification condition. The first of these subjects was not retained in the final sample because he indicated a strong belief in knowing the purpose of the experiment; the remaining subjects were . . . not retained because they failed to carry out the stipulated counterattitudinal statement to the next subject.

Materials

For the negative task conditions, subjects were directed to write numbers at random in each square on provided sheets. The sheets were 8½" X 11" pages ruled into a grid which occupied the whole page except for ¾-1" margins. The grid was comprised of squares whose sides were approximately ½".

For the positive task conditions, the first portion of the task sequence was a prepared display of ten colored feminine portraits selected from magazines. All the

portraits were passport poses (head and shoulders) with side dimensions of between 9"-12". The portraits were mounted on construction paper for the display. Each portrait had a number printed in black ink on top of it which subjects used for identification when arranging the portraits in order of preference on provided sheets of scratch paper. The second part of the task sequence required the use of a film projector to show the firm "Breakneck Sports", a black and white, 8-minute documentary of unusualy international sports. The last portion of the task sequence employed both a written and an audio-taped description of a trial case history (Appendix D) about a breaking and entering charge. The taped description was played for the subjects who could follow this along with a written copy of the same content. The subjects were handed the written copy of the case summary and a verdict sheet prior to the experimenter turning the taped version on.

Procedure

Subjects were individually met and greeted, then escorted to the laboratory and asked to take a seat at a desk.

The experimenter delivered the first portion of the instructions verbally. Appendix A contains these instructions. Subjects were told that the purpose of the study was to examine the effects of different kinds of task stimulations. Following these instructions, there was a slight divergence in instructions depending on whether the subjects were in a negative or in a positive task group. If the subject was in a negative task group, he was asked to read through the specific instructions for writing random numbers (Appendix B). These instructions stated that the subject was to place his name on each page and then to fill in the page with randomly written numbers.

On completion of the page, he was to give that page to the experimenter, and begin another page. This procedure was to continue until the experimenter stopped him. If the subject was in a positive task group, he listened to the experimenter verbally enumerate the different portions of the task sequence (Appendix C). Following the common general instructions, the experimenter said that first, the subject was to examine a display of feminine portraits pasted on the wall in front of him. The subject was to rate these portraits in terms of his "aesthetic" preferences. Following this, the subject was to be shown a brief film. Last, the subject was to hear a trial case history. He was to deliberate the trial as a jury member and then was to indicate a verdict on it.

Following these instructions, subjects in the negative task groups wrote random numbers on the provided pages which were ruled into a grid. The subject always had a pile of at least ten of the gridded sheets placed on the desk before him, many more than could possibly be completed in the alotted time. If the subject had no questions following the written instructions (Appendix B), he was permitted to continue writing numbers while the experimenter sat at a table directly behind him. If the subject raised questions about the time or whether he should fill all the pages in front of him, he was told that the experimenter would time the task. The experimenter stopped all subjects at the end of this arbitrary time limit regardless of how many pages had been completed by the subjects.

After instructions in the positive task groups, the subject was told to begin the first part of the task sequence which involved rating the feminine portraits. When the subject indicated that he had finished this activity, the experimenter switched on the projector and the subject viewed an 8-minute film, entitled "Breakneck Sports", a-

bout unusual and somewhat dangerous sports activities. When the film was ended, the subject was handed a summary of the jury case history (Appendix D) and a verdict sheet. He listened to a tape recording of the case, considered the situation for a few minutes and indicated the verdict. Both the positive and negative tasks occupied approximately the same amount of time, which was 19-20 minutes.

Following both the negative and positive tasks, subjects were asked to rate first their feelings on an adjectives-mood list (Appendix E) and secondly, their reactions to the experiment thus far (task favorability scales in Appendix F). These measures constituted the pre-counterattitudinal manipulation ratings of the subjects' opinions regarding the task.

When the subject had finished the pre-counterattitudinal manipulation ratings, he was thanked and the experimenter then stated that he would be told something about the design and purpose of the study. The experimenter stated that the study was concerned with examining the effects of expectancies on persons' subsequent evaluations of the task. Since the subject had just completed the task himself, and was obviously a realistic source of information, the experimenter was soliciting his aid in instilling the expectancy in the next scheduled subject. The subject thus was given the impression that a half of all experiment participants were given an expectancy prior to undergoing the task and a half were not given the expectancy. This experimenter explanation and request served as the rationale for the counterattitudinal statement (Appendix G). Subjects in the negative task conditions were asked to tell the confederate (i.e. next subject) that the task had been interesting, enjoyable, and a lot of fun (Appendix H). Subjects in the positive task conditions were asked to tell the confederate that the task had been boring, uninteresting, and dull (Appendix H).

The justification variable was also manipulated at this point within the experimenter's counterattitudinal request. With the high justification groups, subjects were offered a three-dollar voucher prior to their consenting to carrying out the counterattitudinal statement. With the low justification groups, no mention was made of the money.

When the subject agreed to the counterattitudinal request and appeared to understand what was expected of him, the experimenter went to get the next subject who was actually a confederate. The present subject was told that the next subject was waiting in another room. The experimenter always left the room for a few minutes when the subject was doing the (pre-counterattitudinal manipulation) task ratings so that later reference to the certainty of the next subject's presence could be made at this point.

The confederate was then brought in and introduced to the subject. The experimenter told the confederate that she had asked the subject to comment briefly to him on the task before he himself was to begin the procedure. The confederate and the subject were left alone for about two minutes in the room following which time the experimenter returned. The confederate listened to the subject's counterattitudinal comment and then mildly remarked that he had heard the opposite from a friend of his who had been in the experiment. In the case of the negative task, this was a statement that he had been told that the experiment was rather dull and he should try getting out of it. In the case of the positive task, this was a statement that he had been told that the experiment rather interesting and he should be prepared for a rather pleasant time. This converse statement by the confederate was made stimulate the subject to further thoughts and support of his counterattitudinal position. The confederate in the Festinger and Carlsmith (1959) study made a similar

statement for the same reasons. Presumably commitment is also increased to the counterattitudinal position when it is elaborated. Beyond the converse comment, the confederate listened attentively to the subject's counter arguments and appeared to accept them. Following the experimenter's return, the confederate was asked to sit down at the desk where the subject had sat and told that he would have to be left alone briefly before the experimenter could return to give him specific instructions.

The experimenter then took the subject out of the room and led him to a second room. The subject was thanked for his help in inducing the expectancy variable, and asked for his reactions on "how thing went" and whether he had been able to convey the information as he had been asked to. The experimenter then remarked that she hoped the subject had not "minded" carrying out the verbalization of the (counterattitudinal) statement (Appendix I). In the case of the negative task, the experimenter further stated that most people so far seemed to enjoy it. In the case of the positive task, the experimenter stated that most people so far did not seem to "mind it too much!" This was included to be consistent with the Festinger and Carlsmith (1959) reasoning that this should make it easier for the subjects to persuade themselves (if they were so inclined) to adopt the counterattitudinal position as their own.

The subject was then asked to re-rate the same adjectives-mood list and task evaluation scales that he had rated immediately following the task manipulation. Verbal instructions (Appendix J) indicated that this was intended mainly to check test reliability. The experimenter left the subject to do the re-evaluations and supposedly went back to the second subject (confederate) to give him the instructions. The experimenter returned to the subject's room in a few minutes. In the case of the negative task

and the positive task with counterattitudinal statement only conditions, no specific comments were made following the experimenter's return to the subject's room. In the case of the positive task with both counterattitudinal statement and feedback, the immediate consequences of the subject's counterattitudinal description for the second subject were de cribed at this time. This feedback occurred prior to the subject filling out the task evaluations. The subject was informed that the second subject apparently had accepted his counterattitudinal description of the task at face value. The experimenter told the subject that this seemed to be the case because the second subject was supposedly being very inattentive and generally disinterested in the outlined procedure and at least the first portion of the task (Appendix K). The second subject thereby seemed to be anticipatively reacting as if he believed the first subject's description.

Following the subject's completion of the adjectives-mood list and the task evaluations for the second time, he was administered a series of scales regarding his perception of his own behavior and that of the confederate (Appendix L). These scales were given under the guise of being unrelated to the main hypotheses but of tangential interest because of the relevance of the study to some peripheral issues as how people form impressions of others and information-processing.

Debriefing followed the outlined procedure and the subject's cooperation was solicited about not immediately discussing the experiment with his classmates.

Design Summary

A 3 X 2 factorial was used with three task conditions and two justification levels. The task conditions were (1)negative with counterattitudinal statement, (2)positive with counterattitudinal statement only, and (3)positive with counterattitudinal statement and feedback. The justification levels were high (offer of a three-dollar voucher) and low (no money was offered).

Results

I. Task Favorability Evaluations

In the two following sections, the main dependent measure was the task evaluations. The first task ratings were taken immediately after the task experience but prior to the induction of the counterattitudinal statement. These ratings constituted a manipulation check on the task experience. The second task ratings, taken after induction of the counterattitudinal statement, were a measure of the effects of the counterattitudinal advocacy.

Manipulation Checks

An analysis of variance was performed on a sum of the pre-counterattitudinal manipulation ratings (items 3-7) which served as a check on the task manipulations. These ratings, taken prior to the counterattitudinal statement, were the baseline from which the counterattitudinal statement effects were calculated. Table 1 gives a summary of the analysis of these scores. The significant task main effect indicated that the positive and negative tasks were perceived as intended by the subjects ($F=38.28$; $df=2,54$; $p<.01$). The mean task evaluation for the negative task was 23.25; mean evaluation for the positive task with counterattitudinal manipulation only was 39.90, and mean evaluation for the positive task with counterattitudinal manipulation and feedback was 43.10. The negative task mean differed from both the positive task means which did not differ from each other (results of the Duncan Multiple Range Test, Winer, 1962). The interaction in the analysis of variance yielded no significant results, and the task X justification means were then examined with the Duncan Multiple Range Test (Table 2). No significant results among the interaction means were noted with the latter test. Since justification levels had not yet been manipulated when these ratings were taken, an interaction was

not expected to emerge with either of the tests. The interaction means were examined as a precautionary measure against the operation of experimental bias prior to the counterattitudinal manipulation.

Table 1: Summary of the Analysis of Variance of the Summed (Items 3-7) Pre-Counterattitudinal Manipulation Scores

Source of Variation	df	Mean Square	F
A: Justification	1	98.816	
B: Task	2	2435.850	38.28*
A X B	2	3.816	
Error	54	63.10	

*p.<.01

Table 2: Mean Pre-Counterattitudinal Score in Each Experiment Condition (Based on Sum of Items 3-7)

Task:	Negative	Positive: CA* only	Positive: CA* and Feedback
High Justification	22.1_a	39.2_b	41.9_b
Low Justification	24.4_a	40.6_b	44.3_b

Note: Cells having a subscript in common are not significantly different at the .05 by the Duncan Multiple Range Test here and in all following tables.

Analyses were also performed on each of the items (3-7) separately. The significant findings, where they did occur, were always those indicating a significant task main effect. The Duncan Multiple Range Test was applied to test the task X justification interaction and did not yield significant findings on any of the items. As such,

*CA in the above table and in all subsequent tables stands for counterattitudinal manipulation.

these results replicated the finding already observed with the total pre-counterattitudinal manipulation scores. Since there were no results in any of the items that differed from the results of the analysis of the total scores, these analyses will not be further discussed. Raw pre-counterattitudinal manipulation scores and analyses of variance are given in Appendix N.

Counterattitudinal Advocacy Effects

The main dependent variable was the opinion score obtained by finding the difference between each person's pre-counterattitudinal manipulation rating and post-counterattitudinal manipulation rating. If the subject shifted his post-counterattitudinal rating in line with his counterattitudinal description of the task, the difference was assigned a positive sign. If the subject shifted his post-counterattitudinal rating in an opposite direction to his counterattitudinal description of the task, the difference was assigned a negative sign. All the items were rated on an 11-point scale where "1" was assigned to the most unfavorable extreme, and "11" was assigned to the most favorable extreme. Analyses were performed on both the total scores of items 3-7 as well as on each of the items taken separately.

A sum of the change scores on items 3-7 was used for the first analysis of variance. Table 3 presents a summary of this analysis. A task main effect was observed ($F=13.25$; $df=2,54$; $p.<.01$) as well as a justification main effect ($F=8.36$; $df=1,54$; $p.<.01$). Subjects undergoing the negative task shifted an average of 7.0 units in line with the counterattitudinal advocacy. This constituted an increase in how favorably the task was perceived. Subjects undergoing the positive task conditions shifted counter to the counterattitudinal advocacy in both conditions. Mean shift for the positive task with counter-

attitudinal statement only was -2.15; mean shift for the positive task with counterattitudinal advocacy and feedback was -.65. Both of the positive task conditions therefore showed increases in task evaluations following counterattitudinal advocacy. Under high justification, subjects shifted counter to the counterattitudinal advocacy, the mean shift being -.80. Under low justification, subjects shifted in line with the counterattitudinal advocacy, the mean shift being 3.60.

Table 3: Summary of the Analysis of Variance of the Summed Change Scores (Items 3-7 Summed)

Source of Variation	df	Mean Square	F
A: Justification	1	299.266	8.36*
B: Task	2	474.616	13.25*
A X B	2	12.016	
Error	54	35.80	

*p.<.01

Although the analysis of variance did not yield a significant interaction, the Duncan Multiple Range Test was used to examine the task X justification interaction means. The reason for examining the interaction means was on an *a priori* basis: pilot testing had indicated an interaction in which high justification, relative to low justification, effected less change in negative task evaluations but greater change in positive task evaluations. Only weak support for such an interaction was indicated with the results of the Duncan Multiple Range Test. All group means are presented in Table 4.

Table 4: Mean Change in Each Experiment Condition (Based on Sum of Items 3-7)

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	4.2_{ac}	-3.4_{b}	-3.2_{b}
Low Justification	9.8_{a}	$-.9_{bc}$	1.9_{bc}

The scores of each of the task favorability items were examined separately because not all the items were considered to be equally relevant measures and hence, might not be equally affected by the experimental manipulation.

Item 4 change scores, which dealt with the degree of task interest and enjoyment, presumably directly reflected the level of specific task dissonance (Festinger & Carlsmith, 1959, p. 207), and these results replicated the main effects of the total change scores. A significant task main effect ($F=8.22$; $df=2,54$; $p<.01$) and a significant justification main effect ($F=4.25$; $df=1,54$; $p<.05$) were observed. A summary of the analysis is given in Table 5. Mean change in task enjoyment and interest for the negative task was 3.6; for the positive task with counterattitudinal manipulation only, mean enjoyment was -.20; and for the positive task with counterattitudinal manipulation and feedback, mean enjoyment was .50. Both the negative task and the positive task followed by feedback showed shifts in task evaluations which were congruent with the counterattitudinal description. The positive task followed by only counterattitudinal advocacy showed a small shift counter to the counterattitudinal advocacy. Mean change in task enjoyment under high justification was .86 and mean change in task enjoyment under low justification was 1.73. These means showed some divergence from the means of the total change scores. With item 4 scores, means of both justification levels yielded shifts in line with the counterattitudinal advocacy whereas with the total scores, only the low justification mean demonstrated shift in line with the counterattitudinal advocacy. Since the analysis of variance did not yield a significant task X justification interaction, the means were examined for this interaction with the Duncan Multiple Range Test. No support for such an inter-

action was observed. All group means are presented in Table 6.

Table 5: Summary of the Analysis of Variance of Change Scores Regarding Degree of Task Interest and Enjoyment

Source of Variation	df	Mean Square	F
A: Justification	1	41.666	4.25*
B: Task	2	80.60	8.22**
A X B	2	17.86	
Error	54	9.88	

*p.<.05

**p.<.01

Table 6: Mean Task Interest and Enjoyment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.7_b	$-.2_b$	1.1_b
Low Justification	5.5_a	$-.2_b$	$-.1_b$

Change scores of item 5 regarding the degree of perceived learning yielded both a task main effect and a justification main effect ($F=5.62$; $df=2,54$; $p<.01$ and $F=8.76$; $df=1,54$; $p.<.01$ respectively). A summary of this analysis is given in Table 7. Mean change in reported amount of learning for the negative task was .95; mean change for the positive task with counterattitudinal manipulation only was -1.2; and mean change for the positive task with counterattitudinal manipulation and feedback was -.7. These means show the same pattern already observed with the total change scores where shifts following the negative task were in line with the counterattitudinal advocacy but shifts following both the positive task conditions were counter to the counterattitudinal advocacy. Mean change in learning with low justification was .46 and mean change in learning with high justification was

-.76. Subjects thus shifted their task evaluations in line with the counterattitudinal advocacy following low justification but counter to the advocacy following high justification. Although the analysis of variance did not yield a significant task X justification interaction, the Duncan Multiple Range Test was used to examine this interaction. These results are presented in Table 8. Only weak support for such an interaction was observed.

Table 7: Summary of the Analysis of Variance of Change Scores Regarding Perceived Degree of Learning

Source of Variation	df	Mean Square	F
A: Justification	1	36.816	8.76*
B: Task	2	23.616	5.62*
A X B	2	1.216	
Error	54	4.29	

*p.<.01

Table 8: Mean Degree of Perceived Learning in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.1_{ac}$	-1.7_{bc}	-1.7_{bc}
Low Justification	1.8_{a}	$-.7_{bc}$	$.3_{bc}$

It is of interest to note that Festinger and Carlsmith (1959) originally included in their study a similar item on which they expected and found no significant differences. According to these authors, no differences were expected on this item because the dissonance being created was of a specific task-related kind and not expected to reflect itself in ratings about the experiment in general. Results of the present study indicated that subjects used generalization to the whole experiment, at least to the extent to which they felt it to be a learning experience,

as a means of dissonance reduction. The pattern of differences shown by the main effects of item 5 duplicated the pattern observed with the total change scores. Since the task comprised the major part of both the current and the Festinger and Carlsmith (1959) experimental procedures, it appears reasonable that perceived situational learning was associated with the task.

Analyses of change scores of task favorability items 3, 6, and 7 did not yield significant differences. Summaries of these analyses are presented in Tables 9, 10, and 11, and group means for each item are given in Tables 12, 13, and 14. Item 3, which measured general experiment enjoyment, was included because the Festinger and Carlsmith (1959) rationale implies that the forced-compliance paradigm effects relatively task-specific kinds of dissonance. Therefore generalization to the whole experiment as a means of dissonance reduction should not occur or show only weak trends according to this rationale. Item 6, which dealt with the perceived degree of scientific importance of the experiment, was included because it could reflect an alternate way of reducing dissonance which was by magnifying the value of the study. If the experiment was considered to be important, less dissonance should be created because "lying" for important reasons is consonant with the counterattitudinal behavior. Item 7, dealing with the desire to participate in a similar study, was included because according to Festinger and Carlsmith (1959, p. 208), this item should yield similar results to those of item 4 but of weaker magnitude.

Table 9: Summary of the Analysis of Variance of Change Scores Regarding General Experiment Enjoyment

Source of Variation	df	Mean Square	F
A: Justification	1	6.016	
B: Task	2	12.016	2.24
A X B	2	8.516	
Error	54	5.35	

Table 10: Summary of the Analysis of Variance of Change Scores Regarding Degree of Experiment Contribution to Science

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	6.616	3.10*
A X B	2	1.116	
Error	54	2.19	

*p. .08

Table 11: Summary of the Analysis of Variance of Change Scores Regarding Desire to Participate in a Similar Experiment

Source of Variation	df	Mean Square	F
A: Justification	1	8.816	2.64
B: Task	2	4.116	
A X B	2	.616	
Error	54	3.33	

Table 12: Mean Degree of General Experiment Enjoyment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.5_a	$-.7_a$	$-.8_a$
Low Justification	$.7_a$	$-.2_a$	$.8_a$

Table 13: Mean Degree of Perceived Scientific Importance of Experiment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.9_a$	$-.7_a$	0.0_a
Low Justification	$.6_a$	$.1_a$	$.4_a$

Table 14: Mean Degree of Willingness to Participate in a Similar Experiment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.4_a$	$-.1_a$	$-.6_a$
Low Justification	1.2_a	$.3_a$	$.5_a$

Since the results of the change scores provided only tenuous evidence for the task X justification interaction, the post-counterattitudinal manipulation scores were examined in an attempt to clarify this relation.* Analysis of variance was first applied to the total post-counterattitudinal manipulation scores (based on a sum of items 3-7). Raw scores are given in Appendix O. The total post-counterattitudinal manipulation scores yielded a significant task main effect ($F=14.78$; $df=2,54$; $p<.01$). A summary of this analysis is given in Table 15. Mean post-counterattitudinal manipulation scores for the negative task was 30.25; for the positive task with counterattitudinal manipulation only was 41.90, and for the positive task with counterattitudinal manipulation and feed-

*These were the raw scores obtained on the second ratings of the task favorability items taken after the counterattitudinal manipulation. It is recognized that these scores are not necessarily as direct a test of the experimental hypotheses as are the change scores.

back was 43.75. As such; these results replicated the task main effect pattern already observed with the change scores. The Duncan Multiple Range Test was used to examine the task X justification interaction means although this interaction was significant at the $p.<.10$ level with the analysis of variance. Group means are presented in Table 16 and Figure 1. With the Duncan Multiple Range Test, no differences were observed due to levels of justification among the positive task means, but the two negative task means under high and low justification were significantly different from each other as well as from each of the four positive task means ($p.<.05$). This suggested an interaction wherein justification made little difference within the positive task conditions but did show differentiating effects with the negative task. The mean negative task evaluations were significantly more favorable following low than high justification, but both these means were significantly more unfavorable than any of the four positive task conditions.

Table 15: Summary of the Analysis of Variance of the Summed (Items 3-7) Post-Counterattitudinal Manipulation Scores

Source of Variation	df	Mean Square	F
A: Justification	1	30.816	
B: Task	2	1112.066	14.78*
A X B	2	192.266	2.55**
Error	54	75.20	

*$p.<.01$

**$p.<.10$

Table 16: Mean Post-Counterattitudinal Manipulation Score in Each Experiment Condition (Based on Sum of Items 3-7)

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	26.3_a	42.6_b	45.1_b
Low Justification	34.2_c	41.2_b	42.4_b

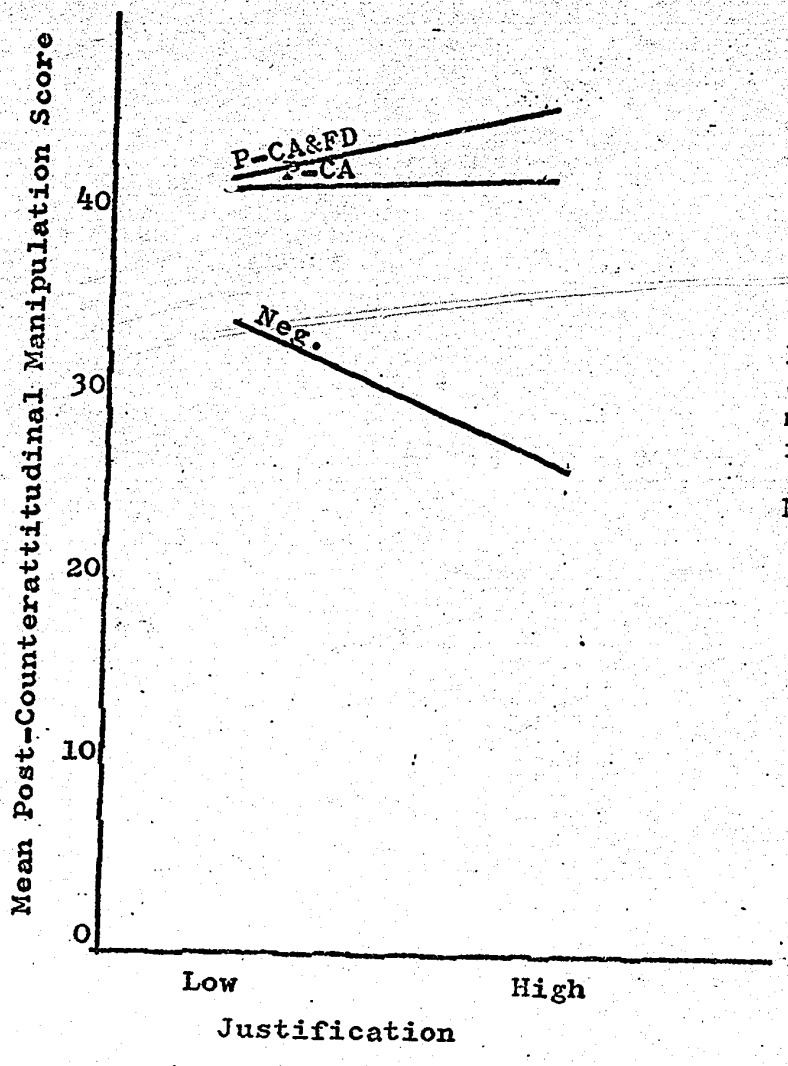

Figure 1: Mean Post-Counterattitudinal Manipultion Score for Each Experiment Condition (Based on Sum of Items 3-7)

Analyses of the post-counterattitudinal manipulation scores of each item separately yielded similar results to those observed with the total scores. The raw post-counterattitudinal manipulation scores of each item and summaries of their analyses are given in Appendix P. It was observed that the task X justification interaction means as tested by the Duncan Multiple Range Test resulted in the same pattern on all items. The negative task with low justification mean was typically larger than the negative task with high justification mean, but both negative task means were smaller than all four of the positive task means. Where significant differences occurred using the Duncan Multiple Range Test, these differences were always between one or both of the negative task means and some or all of the positive task conditions. No significant differences were observed on any of the items among the positive task conditions. This is the same pattern that emerged with the total (sum of items 3-7) post-counterattitudinal manipulation scores. In view of the consistency of the pattern on all the items, even though the differences among the means were not always significant, the suggested task X justification interaction merits further consideration.

II. Adjectives-Mood List

The adjectives-mood list was included as a source of supplementary data. The adjective components were a selected combination of the Nowlis (1965) and Zuckerman (1960, 1962) scales and the instructions (given in Appendix E) were adapted from Nowlis (1965). All the selected adjectives had been previously used and identified with particular factors in several of the studies reviewed by Nowlis (1965). The criteria for selection of adjectives for this study were (1) their apparent relevance to the counterattitudinal advocacy situation, and (2) their ten-

dency to show minimal differences in analyses of the pilot data for the study. It was anticipated that the results of the adjectives list would provide answers to al least two questions: (1)do subjects experience disturbance following counterattitudinal advocacy of a positive task; and (2)is the disturbance following counterattitudinal advocacy of a positive task different from the disturbance following counterattitudinal advocacy of a negative task.

Each of the adjectives in the list was subjected to three analyses of variance. These were as follows: (1) the ratings following the task experience but pre-counterattitudinal manipulation; (2)the change scores, being the difference between the pre-counterattitudinal and post-counterattitudinal manipulation ratings, and (3)the post-counterattitudinal manipulation ratings. The first of these constituted a check on the task manipulations while the second and third were measures of the counterattitudinal statement effects. Although the second and third measures were both measures of the counterattitudinal advocacy effects, the change scores were considered a more direct test of the actual counterattitudinal manipulation effects. The post-counterattitudinal analyses are included as a source of supplementary data where the change scores failed to demonstrate significant results. All adjectives were rated on 4-point scales where "0" indicated no presence of the mood, or feeling described by the adjective, "1" indicated doubt regarding the presence of the mood, "2" indicated some presence of the mood, and "3" indicated a definite state of the described mood. A numerically larger mean therefor always shows a greater rated degree of the mood indicated by the particular adjective, and a numerically smaller mean shows a lesser degree of the mood described by the adjective.

For the sake of brevity, only those adjectives which yielded significant findings on either of the measures will

be discussed. Analyses of adjectives scores which did not yield significant results are summarized in Appendix Q. The Duncan Multiple Range Test was performed on all analyses that showed significant findings with the analysis of variance. The results of this test will be included in the discussion where significant differences were revealed by it which were not already apparent from the analysis of variance. All differences reported using the Duncan Multiple Range Test are at the $p < .05$ level.

In presenting the significant findings, the adjectives are ordered according to the factors they were chosen to represent. For the underlying factor represented, the standard reference of classification used was that presented by Nowlis (1965). With one exception, each factor was represented by at least two adjectives. Although these adjectives scores could have been summed to represent their underlying factors, this was not done because of the dubious nature of the underlying dimensions involved. The Nowlis review is essentially a post hoc integrative attempt, and further examination of the studies included in it reveals considerable disagreement regarding the components of particular dimensions. Even though apparently analogous procedures were used in several studies, results did not necessarily display similar factor patterns. To avoid the ambiguous status of assumptions that are inherent in the use of pooled scores, each of the mood-adjectives was analysed separately.

Manipulation Checks

Findings discussed in this section were based on ratings taken immediately after the task experience but prior to the counterattitudinal statement.

An aggression factor appeared in all 15 of the studies reviewed by Nowlis. This factor was similar to Zuckerman's (1960) hostility-plus adjective-components.

It was represented in this study by "angry", "annoyed", and to a lesser extent, "disagreeable". Pre-counterattitudinal ratings of "angry" yielded a significant task main effect ($F=5.87$; $df=2,54$; $p.<.01$). A summary of the analysis of variance is presented in Table 17. Subjects rated themselves as being more angry following the negative task (mean = .55) than following either of the positive task conditions (both of the positive task means = 0).

Table 17: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Angry"

Source of Variation	df	Mean Square	F
A: Justification	1	.15	
B: Task	2	2.016	5.87*
A X B	2	.15	
Error	54	.34	

*p.<.01

An anxiety factor was located in all the 15 studies reviewed by Nowlis although the specific axes differed among the studies. Nowlis suggests this is similar to the depression pole of Cattell's PUI 2, a pattern associated with "some tendency to general emotionality, with situations of frustration, and with a tendency to handle problems crudely" (Cattell, 1960). Zuckerman (1960) differentiated this factor from depression. This factor was represented by "tense" and "upset", neither of which showed significant results on the pre-counterattitudinal scores.

A surgency factor was identified in 6 out of 7 studies by Nowlis. This factor overlapped with several other factors, notably with elation and nonchalance, and occasionally with social affection. It was represented by "cheerful" and "calm", two adjectives which Zuckerman (1960) identified as anxiety-minus characteristics, and "carefree", identified by Zuckerman as a depression-minus adjective. Pre-counterattitudinal manipulation scores of

"cheerful" resulted in a significant task main effect (F= 5.17; df=2,54; p.<.01). Table 18 presents a summary of this analysis of variance. Subjects rated themselves as being less cheerful following the negative task (mean = .85) than following either the positive task with counterattitudinal manipulation only (mean = 1.75) or the positive task with counterattitudinal manipulation and feedback (mean = 1.70).

Table 18: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Cheerful"

Source of Variation	df	Mean Square	F
A: Justification	1	.016	
B: Task	2	4.55	5.17*
A X B	2	.016	
Error	54	.88	

*p.<.01

An elation factor was discriminated definitely in only 4 out of 12 studies reviewed by Nowlis. The apparent reason for lack of more definite discrimination was that the factor was one of the later ones to be noted and merged with several other factors. It was represented in this experiment by "pleased", "happy", and "lighthearted". Subjects rated themselves as more pleased after undergoing a positive task (both positive task means = 1.35) than after undergoing a negative task (mean = .70). A summary of the analysis of variance of pre-counterattitudinal manipulation "pleased" scores, which yielded a significant task main effect (F=6.20; df=2,54; p.<.01), is given in Table 19.

Table 19: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Pleased"

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	3.05	6.20*
A X B	2	.016	
Error	54	.49	

*p.<.01

A concentration factor appeared in all the studies reviewed by Nowlis. This factor dealt with a reflective mood, the central idea of which is an involvement with one's thoughts or task, or both. Adjectives representing this factor were "thoughtful" and "attentive", neither of which showed significant findings with the pre-counterattitudinal scores.

A separate fatigue factor was partialled out of the more general activation-deactivation dimension and located in 14 out of 15 studies in the Nowlis review. In the current study, "tired" and "dull" were used as representatives of this factor. This factor deals with a lack of interest in one's surrounds, perhaps coupled with a lack of ability or desire to act. Pre-counterattitudinal manipulation scores of "dull" resulted in a significant task main effect ($F=10.66$; $df=2,54$; $p.<.01$). Table 20 gives a summary of the analysis of variance of this adjective. Subjects reported feeling more dull following the negative task (mean = 1.55) than following the positive task with counterattitudinal manipulation only (mean = .50) or the positive task with counterattitudinal manipulation and feedback (mean = .35).

Table 20: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Dull"

Source of Variation	df	Mean Square	F
A: Justification	1	0.0	
B: Task	2	8.55	10.66*
A X B	2	1.05	
Error	54	.80	

*p.<.01

A social affection factor was noted in 10 out of 13 studies in the Nowlis review. This involved a positive, helpful approach and social orientation which overlapped with elation and concentration. "Kindly" and "affectionate" represented this factor in the current study.

"Cooperative" can also be included with this factor although its placement here is more tenuous because the McNair and Lorr (1962) results showed merging with other factors. None of the pre-counterattitudinal manipulation scores of this factor yielded significant findings.

A sadness factor was definitely located in 7 out of 15 studies and a more general factor of depression and guilt in amother 6 out of the 15 studies in the Nowlis review. The adjectives connoting this factor were "downhearted", "discouraged", and "regretful", the latter two adjectives being identified as depression-plus adjectives by Zuckerman (1964). As represented in this study, this factor was analogous to Zuckerman's depression which has a guilt-basis. No significant findings were observed with any of the pre-counterattitudinal manipulation scores.

A skepticism or general suspiciousness factor emerged if suitable adjectives were included in 6 out of 9 studies reviewed by Nowlis. Since this factor was of particular interest in relation to the counterattitudinal advocacy but not one of major theoretical interest, one adjective was used to designate it. This adjective, which was "skeptical", yielded no significant results with the pre-counterattitudinal manipulation scores.

A vigor or general activation factor with a unique axis appeared in 6 out of 13 studies reviewed by Nowlis. This was a general alertness tendency which was represented by "active" and "lively". Pre-counterattitudinal manipulation scores of "lively" resulted in a significant task main effect ($F=3.49$; $df=2,54$; $p<.05$). Table 21 presents a summary of the analysis of variance of these scores. Subjects rated themselves as more lively following both the positive task with counterattitudinal manipulation only (mean = 1.55) and the positive task with counterattitudinal manipulation and feedback (mean = 1.40) than following the negative task (mean = .80).

Table 21: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Lively"

Source of Variation	df	Mean Square	F
A: Justification	1	.15	
B: Task	2	3.15	3.49*
A X B	2	.35	
Error	54	.89	

*p.<.05

A nonchalance or general deactivation factor was postulated by Nowlis as an addition to the fatigue factor. This was a tendency to be generally relaxed or unconcerned, and was tentatively identified in 4 out of 7 studies. Adjectives representing this factor were "bored" and "leisurely". Pre-counterattitudinal manipulation scores of "bored yielded a significant task main effect ($F=8.63$; $df=2,54$; $p.<.01$). A summary of the analysis of variance is given in Table 22. Subjects were more bored following the negative task (mean = 1.35) than following the positive task with counterattitudinal manipulation only (mean = .50) or the positive task with counterattitudinal manipulation and feedback (mean = .35).

Table 22: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Bored"

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	6.216	8.63*
A X B	2	1.016	
Error	54	.72	

*p.<.01

Pre-counterattitudinal manipulation ratings of "leisurely" also yielded a significant task main effect ($F=5.12$; $df=2,54$; $p.<.01$). A summary of this analysis is presented in Table 23. Subjects following both the positive task conditions were more leisurely than following the negative task, the means being 1.95, 1.85, and 1.35 for

the positive task with counterattitudinal manipulation only, the positive task with counterattitudinal manipulation and feedback, and the negative task respectively.

Table 23: Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of "Leisurely"

Source of Variation	df	Mean Square	F
A: Justification	1	1.35	
B: Task	2	4.86	5.12*
A X B	2	.80	
Error	54	.95	

*p.<.01

In summary, subjects were more dull, angry, and bored following the negative task than following the positive task. Alternately, subjects were more cheerful, pleased, lively, and leisurely after the positive task than after the negative task. Experiencing the negative task incurred a rather hostile mood which was characterized by disinterest in the immediate environment or lack of sufficient stimulation to maintain such interest. Experiencing the positive task evoked a pleasantly active mood which was characterized by a feeling of relaxation or lack of tension.

Counterattitudinal Advocacy Effects: Change Scores

Findings to be discussed in this section are based on scores obtained by finding the difference between the pre-counterattitudinal and post-counterattitudinal manipulation ratings. The differences were assigned a positive sign where they indicated increases in the described mood or feeling and were assigned a negative sign where they indicated decreases in the described mood or feeling.

Analysis of the change scores of "disagreeable" representing the aggression factor resulted in a justification main effect ($F=4.91$; $df=1,54$; $p.<.05$). A summary of this analysis is presented in Table 24. Mean self-

rating of "disagreeable" with high justification was .06 and the mean with low justification was -.33. The changes following high justification reflected a slight increase in being disagreeable whereas the changes with low justification showed a decline in being disagreeable. All group means are given in Table 25. Use of the Duncan Multiple Range Test to examine the task X justification interaction means revealed significant differences only among the most extreme means.

Table 24: Summary of the Analysis of Variance of Change Scores of "Disagreeable"

Source of Variation	df	Mean Square	F
A: Justification	1	2.016	4.91*
B: Task	2	.516	
A X B	2	.016	
Error	54	.41	

*p.<.05

Table 25: Mean Change Score of "Disagreeable" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.2_{a}$	$-.1_{ac}$	$.1_{a}$
Low Justification	$-.2_{ac}$	$-.6_{bc}$	$-.2_{ac}$

The change scores of "lighthearted" and "pleased", both representing the elation factor, yielded significant findings. Change scores of "lighthearted" revealed a significant task X justification interaction ($F=5.75$; $df=2,54$; $p.<.01$). A summary of this analysis if given in Table 26. High justification, relative to low justification, resulted in increased lightheartedness with the positive task followed by counterattitudinal manipulation only, but resulted in decreased lightheartedness with the negative task. Justification levels made little diffe-

rence with the positive task followed by counterattitudinal manipulation and feedback.

Table 26: Summary of the Analysis of Variance of Change Scores of "Lighthearted"

Source of Variation	df	Mean Square	F
A: Justification	1	.066	
B: Task	2	.516	
A X B	2	3.616	5.75*
Error	54	.63	

*p.<.01

Table 27: Mean Change Score of "Lighthearted" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$-.1_{bc}$	$.8_{a}$	$.1_{ac}$
Low Justification	$.7_{a}$	$-.1_{bc}$	0.0_{bc}

Change scores of "pleased" showed a significant task main effect ($F=3.78$; $df=2,54$; $p.<.05$). A summary of this analysis is presented in Table 28. The most change occurred with the negative task (mean = 1.05); an intermediate amount of change occurred with the positive task with counterattitudinal advocacy only (mean = .55); and the least change occurred with the positive task with counterattitudinal advocacy and feedback (mean = .25). Examining the group means with the Duncan Multiple Range Test for the task X justification interaction (means given in Table 29) showed that less change occurred with the positive task with counterattitudinal advocacy and feedback regardless of justification level than with the negative task under low justification.

Table 28: Summary of the Analysis of Variance of Change Scores of "Pleased"

Source of Variation	df	Mean Square	F
A: Justification	1	.266	
B: Task	2	2.916	3.78*
A X B	2	.116	
Error	54	.77	

*p.<.05

Table 29: Mean Change Score of "Pleased" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.9_{ac}$	$.5_{ac}$	$.3_{bc}$
Low Justification	1.2_{a}	$.6_{ac}$	$.2_{bc}$

No other significant findings were observed with the change scores of any of the adjectives.

Counterattitudinal Advocacy Effects: Post-Counterattitudinal Manipulation Scores

All findings to be discussed in this section are based on the post-counterattitudinal ratings taken after induction of the counterattitudinal statement.

All of the adjectives representing the aggression factor yielded significant results following the counterattitudinal manipulation. The post-counterattitudinal manipulation scores of "annoyed" yielded a significant task main effect ($F=5.73$; $df=2,54$; $p.<.01$). A summary of the analysis of variance is given in Table 30. Subjects rated themselves as being more annoyed after the negative task (mean = .65) than after the positive task with counterattitudinal manipulation only (mean = .30) or the positive task with counterattitudinal manipulation and feedback (mean = .10). The task X justification

interaction of this analysis was also significant ($F=3.72$; $df=2,54$; $p.<.05$). Compared with low justification, high justification effected no difference following the positive task with counterattitudinal manipulation and feedback, slightly less annoyance following the positive task with counterattitudinal manipulation only, and slightly more annoyance following the negative task. The Duncan Multiple Range Test was used to further examine specific differences among the interaction means and these results are given in Table 31. With the latter test, the negative task with justification evoked significantly more annoyance than all the positive task conditions except the positive task with counterattitudinal manipulation only and low justification.

Table 30: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Annoyed"

Source of Variation	df	Mean Square	F
A: Justification	1	.15	
B: Task	2	3.316	5.73**
A X B	2	2.15	3.72*
Error	54	.58	

**p.<.01

*p.<.05

Table 31: Mean Post-Counterattitudinal Manipulation Scores of "Annoyed" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.9_{a}$	0.0_{bc}	$.1_{bc}$
Low Justification	$.4_{ac}$	$.6_{ac}$	$.1_{bc}$

Post-counterattitudinal manipulation scores of "angry" also yielded a significant task main effect ($F=3.53$; $df=2,54$; $p.<.05$). A summary of this analysis of variance is presented in Table 32. Subjects rated themselves as

being more angry following the negative task (mean = .45) than following either of the positive task conditions (both means = .05). As the analysis of variance showed no further significant results, the Duncan Multiple Range Test was used to examine the task X justification interaction means (given in Table 33). The only significant difference observed was that the negative task with high justification resulted in more anger than either the positive task with counterattitudinal manipulation only and high justification, or the positive task with counterattitudinal manipulation and feedback with low justification.

Table 32: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Angry"

Source of Variation	df	Mean Square	F
A: Justification	1	.15	
B: Task	2	1.066	3.53*
A X B	2	.20	
Error	54	.30	

*p.<.05

Table 33: Mean Post-Counterattitudinal Manipulation Score of "Angry" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.6_{}$	0.0_{bc}	$.1_{ac}$
Low Justification	$.3_{ac}$	$.1_{ac}$	0.0_{bc}

Analysis of the post-counterattitudinal manipulation scores of "upset" failed to show any significant findings.

None of the adjectives representing the surgency or elation factors showed significant findings with scores measuring counterattitudinal statement effects.

Post-counterattitudinal manipulation scores of "thoughtful", representing the concentration factor, yielded a significant task main effect ($F=4.48$; $df=2,54$; $p.<.05$).

The results of the analysis of these scores are summarized in Table 34. Subjects rated themselves as most thoughtful following the positive task with counterattitudinal manipulation and feedback (mean = 2.20). Degree of thoughtfulness following both the negative task and the positive task with counterattitudinal manipulation only showed little difference, the means being 1.35 and 1.30 respectively. No other significant findings were noted with the analysis of variance and the Duncan Multiple Range Test was used to test the task X justification interaction means (given in Table 35). The latter test indicated that regardless of justification level, the positive task with counterattitudinal manipulation and feedback showed significantly more thoughtfulness than the negative task or the positive task with counterattitudinal manipulation only under low justification.

Table 34: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Thoughtful"

Source of Variation	df	Mean Square	F
A: Justification	1	2.816	
B: Task	2	5.116	4.48*
A X B	2	.816	
Error	54	1.14	

*p.<.05

Table 35: Mean Post-Counterattitudinal Manipulation Score of "Thoughtful" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.6_{ac}	1.7_{ac}	2.2_{a}
Low Justification	1.1_{bc}	$.9_{bc}$	2.2_{a}

Scores of "attentive", also representing the concentration factor, failed to show any significant results.

Post-counterattitudinal manipulation scores of "dull" representing the fatigue factor showed a significant task main effect ($F=9.33$; $df=2,54$; $p.<.01$). Table 36 presents a summary of the analysis of variance of these scores. Subjects rated themselves the least dull following the positive task with counterattitudinal manipulation only (mean = .25), intermediately dull following the positive task with counterattitudinal manipulation and feedback (mean = .60), and the most dull following the negative task (mean = 1.15). This analysis showed no other significant findings and the means of the task X justification interaction were examined by the Duncan Multiple Range test (Table 37). Compared with low justification, high justification following both the negative task and the positive task with counterattitudinal manipulation only made little difference but resulted in significantly more dullness following the positive task with counterattitudinal manipulation and feedback.

Table 36: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Dull"

Source of Variation	df	Mean Square	F
A: Justification	1	.15	
B: Task	2	6.066	9.33*
A X B	2	.80	
Error	54	.65	

*$p.<.01$

Table 37: Mean Post-Counterattitudinal Manipulation Score of "Dull" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.3_{a}	0.0_{b}	1.0_{ac}
Low Justification	1.0_{ac}	$.5_{bc}$	$.2_{b}$

"Tired" post-counterattitudinal manipulation scores, also representing the fatigue factor, did not yield any significant results.

No significant findings were noted with any of the adjectives representing the social affection factor.

Post-counterattitudinal manipulation scores of "regretful", one of the indicators of the sadness factor, yielded a significant task main effect ($F=5.70$; $df=2,54$; $p.<.01$). A summary of these results is given in Table 38. Subjects rated themselves most regretful following the negative task (mean = .75), somewhat less regretful after the positive task with counterattitudinal manipulation only (mean = .40), and least regretful after the positive task with counterattitudinal manipulation and feedback (mean = .05). No further results were observed with the analysis of variance and the Duncan Multiple Range Test was used to examine the task X justification interaction. Table 39 presents the means for this interaction. The only significant difference observed with the Duncan Multiple Range Test was between the negative task followed by high justification and the positive task with counterattitudinal manipulation and feedback regardless of justification level where the former condition showed greater regret.

Table 38: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Regretful"

Source of Variation	df	Mean Square	F
A: Justification	1	.066	
B: Task	2	3.216	5.70*
A X B	2	1.016	
Error	54	.59	

*$p.<.01$

Table 39: Mean Post-Counterattitudinal Manipulation Score of "Regretful" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	$.9_{a}$	$.2_{ac}$	$.1_{bc}$
Low Justification	$.6_{ac}$	$.6_{ac}$	0.0_{bc}

Post-counterattitudinal manipulation scores of "discouraged", which was also an indicator of the sadness factor, resulted in a justification main effect ($F=8.30$; $df=1,54$; $p.<.01$) and a significant task X justification interaction ($F=4.14$; $df=2,54$; $p.<.05$). Table 40 shows a summary of the analysis of variance results. Subjects experiencing low justification rated themselves as less discouraged than those experiencing high justification (the means were = .23 and .53 respectively). The means for the task X justification interaction are given in Table 41. High justification, relative to low justification, showed subjects to be more discouraged after both the negative task and the positive task with counterattitudinal manipulation and feedback but less discouraged after the positive task with counterattitudinal manipulation only. However, the Duncan Multiple Range Test showed the positive task with counterattitudinal manipulation and feedback means under both justification levels to be significantly smaller than the negative task with high justification mean.

Table 40: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Discouraged"

Source of Variation	df	Mean Square	F
A: Justification	1	3.266	8.30**
B: Task	2	1.216	3.11
A X B	2	1.616	4.14*
Error	54	.388	

**p.<.01

*p.<.05

Table 41: Mean Post-Counterattitudinal Manipulation Score Of "Discouraged" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.0_a	$.2_{cd}$	$.4_{bd}$
Low Justification	$.1_c$	$.5_b$	$.1_c$

There were no significant findings with scores representing the skepticism factor.

Post-counterattitudinal manipulation scores of "lively" representing the activation factor resulted in a significant task main effect ($F=3.42$; $df=2,54$; $p.<.05$). Table 42 presents a summary of the analysis of these scores. Subjects rated themselves most lively after the positive task with counterattitudinal manipulation only (mean = 1.85), the next most lively after the positive task with counterattitudinal manipulation and feedback (mean = 1.45), and the least lively after the negative task (mean = 1.15). The analysis of variance showed no other findings and the Duncan Multiple Range Test was used to examine the task X justification means (given in Table 43). The only significant difference with the latter test was that the negative task under low justification showed significantly less liveliness than the positive task with counterattitudinal manipulation only under low justification.

Table 42: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Lively"

Source of Variation	df	Mean Square	F
A: Justification	1	.416	
B: Task	2	2.466	3.42*
A X B	2	.266	
Error	54	.72	

*p.<.05

Table 43: Mean Post-Counterattitudinal Manipulation Score Of "Lively" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.3_{ac}	1.8_{ac}	1.6_{ac}
Low Justification	1.0_{bc}	1.9_{a}	1.3_{ac}

Post-counterattitudinal manipulation scores of "active", also representing the activation factor, showed no significant differences.

"Bored" post-counterattitudinal manipulation scores which represented a deactivation factor yielded a significant task main effect ($F=11.40$; $df=2,54$; $p<.01$) and a task X justification interaction ($F=4.80$; $df=2,54$; $p<.05$). Table 44 gives a summary of this analysis. Subjects were more bored following the negative task (mean = 1.20) than following the positive task with counterattitudinal manipulation only (mean = .15) or the positive task with counterattitudinal manipulation and feedback (mean = .45). The task X justification interaction indicated that with a negative task, subjects were more bored with high than low justification. The reverse happened with both the positive task conditions where subjects were somewhat more bored with low than high justification. Specific means of the task X justification interaction were examined by the Duncan Multiple Range Test and these results are given in Table 45. Significantly more boredom was reported after the negative task with high justification than after any of the positive task conditions regardless of justification level.

Table 44: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores of "Bored"

Source of Variation	df	Mean Square	F
A: Justification	1	0.0	
B: Task	2	5.85	11.46**
A X B	2	2.45	4.80*
Error	54	.51	

**p.<.01

*p.<.05

Table 45: Mean Post-Counterattitudinal Manipulation Score of "Bored" in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	1.6_a	0.0_c	$.2_{bc}$
Low Justification	$.8_b$	$.3_{bc}$	$.7_b$

Following counterattitudinal advocation of the negative task, subjects reported anger and disagreeability, regret and discouragement as well as boredom and dullness. The change and post-counterattitudinal manipulation scores demonstrated that the counterattitudinal manipulation either maintained or enhanced the subjects' angry and disinterested mood. The counterattitudinal manipulation, especially under high justification, interjected aggressive-hostility and guilt elements which were not present prior to the manipulation. This suggested that the mood induced by the negative task with counterattitudinal manipulation had at least two significant dimensions which were present only in minimal degrees in the positive task conditions. These dimensions were: (1)a hostility-aggression dimension which showed anger and resentment with the task experience and which was either maintained or augmented by the counterattitudinal advocacy; and (2)a depression-sadness dimension which complemented the

hostility and which suggested regretful resignation at finding oneself in a compromising situation where a disliked activity had to be performed against one's wishes. In contrast, subjects rated themselves more lively following both the positive task conditions which, as expected, evoked greater situational interest than did the negative task. Maximal thoughtfulness for the positive task with counterattitudinal manipulation and feedback suggested that maximum attention was given to the implications of one's behavior under circumstances where definite information was available regarding the victim's immediate reactions. There was a tendency for the positive task with counterattitudinal manipulation and feedback to be rated intermediate to the negative task and the positive task with counterattitudinal manipulation only on the fatigue, sadness and deactivation factors, but lower than either the negative task or the positive task with counterattitudinal manipulation only on the aggression-hostility and depression-sadness factors. Considered in addition to the concentration factor results, this suggested that considerable stimulation of thought and weighing of the consequences of the counterattitudinal behavior occurred under the positive task with feedback, perhaps to an analogous degree as with the negative task. That the counterattitudinal conflict emanating from the positive task with counterattitudinal manipulation and feedback was interpreted differently from the conflict following the negative task was suggested by the aggression-hostility and depression-sadness dimensions where more annoyance and regret were expressed after the negative and the positive with counterattitudinal statement only tasks than after the positive task with feedback. This implied that different reactions were expected from the victim, and as a result, different interpretations were attached to the counterattitudinal conflict.

The justification variable did not show strong effects

with the mood indicators either as a main effects or as an interaction component. Significant task X justification interactions were observed with the scores of lighthearted, annoyed, discouraged and bored which indicated that some disturbance did follow the positive task. With feedback, this disturbance was slightly greater with high justification, but with counterattitudinal advocacy only, it was slightly greater with low justification. Weak support is also indicated for the notion that high justification, especially when linked with unfavorable consequences, tends to increase negativity of the mood. Under conditions of low justification associated with negative consequences, rationalization may occur so that a somewhat elated mood is reported.

III. Perception of Self and Other Subject Scales

A series of 6 items regarding the subject's perception of both own and other subject's behavior was administered following the post-counterattitudinal manipulation ratings of the task favorability items and the adjectives-mood list. These items were given under the guise of not directly bearing on the main hypotheses being examined but being of tangential interest because of the relation of the study to other theoretical areas as information processing and impression formation. The instructions for these scales are presented in Appendix L.

Each item was subjected to an analysis of variance. The only significant finding was for item 4, composed of two sub-parts, regarding the subject's anticipated reaction of the other subject to the task. An analysis of variance of the summed item 4 (b) and (c) scores yielded a significant task main effect ($F=5.18$; $df=2,54$; $p<.01$). A summary of this analysis is given in Table 46. Subjects following the negative task expected the other subject to be the most "upset" and "taken back" (mean = 10.90), only

somewhat upset and taken back after the positive task with counterattitudinal manipulation only (mean = 12.0), and the least upset and the most gratified following the positive task with counterattitudinal manipulation and feedback (mean = 14.35). No other significant findings were observed from the analysis of variance results. The Duncan Multiple Range Test was applied to the means to test for the task X justification interaction. All group means are given in Table 47. The other subject was expected to be the least upset and the most gratified following the positive task with counterattitudinal manipulation and feedback under low justification. This mean was significantly larger than the means following the negative task regardless of justification level and the positive task with counterattitudinal manipulation only under low justification.

Table 46: Summary of the Analysis of Variance of Scores Regarding How Upset and Taken Back the Other Subject Was Expected to be About the Task

Source of Variation	df	Mean Square	F
A: Justification	1	.267	
B: Task	2	63.65	5.18*
A X B	2	16.116	
Error	54	12.30	

*p.<.01

Table 47: Mean Score in Each Experiment Condition for How Upset and Taken Back the Other Subject was Expected to be About the Task

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	11.6_{a}	12.4_{ac}	13.4_{ac}
Low Justification	10.2_{a}	11.6_{a}	15.3_{bc}

It should be noted that separate analyses were performed on scores of each of the three sub-parts of this items as well as on a summed score (total of 4a-c). The analysis of variance results of the summed score as well as of (b) and (c) analysed separately yielded similar findings to those reported above. Separate analysis of 4(a) did not yield significant results. In the interests of parsimony, the above analysis presents the results of the summed (b) and (c) scores while (a) was omitted because, with post hoc vision, it appeared to represent a somewhat different component than did (b) and (c). Item 4(a) concerned to what extent the other subject was expected to react to the task in terms of its description and seemed to represent a cognitive, belief element whereas 4 (b) and (c) were concerned with the degree to which the other subject was expected to be upset and gratified and thus seemed to represent affective elements.

Discussion

Counterattitudinal advocacy of an enjoyable task did not yield results predicted by dissonance theory. Although dissonance theory predictions were supported with the negative task, subjects who experienced both the positive task conditions evaluated the task more favorably following counterattitudinal advocacy. This increase in positive evaluations of an already favorably perceived task suggested that subjects resolved the tension generated by counterattitudinal advocacy of a positive task differently than they resolved the tension generated by counterattitudinal advocacy of a negative task. Therefore counterattitudinal advocacy in itself did not necessarily result in shifts of private opinion congruent with the direction of the advocacy. The reason for this may be two-fold: (1)a general positivity tendency, and (2)differing modes of counterattitudinal conflict resoluation depending on the consequences for the deceiver after counterattitudinal description of a negative task than after similar description of a positive task.

Counterattitudinal description of both a pleasant and an unpleasant task resulted in perceiving the task in more favorable terms. Therefore re-alignment of belief-behavior cognitions can take other forms than that predicted by dissonance theory, and counterattitudinal conflict may be resolved by using whatever perceptual modifications require the least distortion of reality and are situationally convenient. Since more favorable perceptions of the task regardless of its initial degree of favorability were observed following counterattitudinal descriptions, if it can be assumed that counterattitudinal conflict occurred, this was presumably the easiest form of resolving such conflict within the forced-compliance paradigm. Perhaps one reason for the prominence of this method in belief-behavior discrepancy resolution is the

presence of a cultural norm of positivity (Briscoe, Woodyard & Shaw, 1967). It has been suggested that people find it generally easier to attribute positive evaluations to both people and objects than to attribute negative ones (e.g. Lemann & Solomon, 1952; Heider, 1958; Cartwright & Harary, 1956). This may be because of an underlying cultural norm which promotes favorable evaluations when in doubt. As such, formulations of dissonance theory may be viewed as part of a more general framework where apparent changes in perceptions of a private experience may not necessarily be a defensive rationalization of position but rather a learned tendency to evaluate objects and people in positive terms when there are conflicting cues.

Another reason for the observed changes in task evaluations can be advanced. According to one of the rationales involved in this study, increased positivity in task evaluations may occur because of the need to justify to oneself the performance of the counterattitudinal behavior. Following a negative task, it was assumed that subjects would expect their victim to react unfavorably to the task. As self-justification for giving the counterattitudinal description, subjects would resolve the belief-behavior conflict by denying the initial negativity of the task and changing their task evaluations to perceive it in more favorable terms. Following a positive task, it was assumed that subjects would expect their victim to be pleased with the task experience. However, in an attempt to protect themselves against any possible negative reactions of the victim to their "lie", subjects would shift their task evaluations so as to emphasize the favorability of the task. Following counterattitudinal description of a task, then, some defensiveness regarding the "lying" behavior was expected to occur regardless of initial task evaluation. However, the method used to resolve this defensiveness was expected to differ depending on the kind of consequences that ensued for the deceived

victim. Support for these notions was found in both the task evaluations data and the results of the perception of self and other subject scales. As indicated by the latter measures, the positive and negative task experience led to expectations of different reactions from the other subject. Where subject received feedback about their victim's immediate reaction to the task (as with the positive task followed by feedback), subjects thought the other subject would be maximally gratified and the least upset. The other subject was expected to be the most upset and taken back with the negative task. These expected reactions of the victim to the task experience were consistent with the subjects' resolution of their counterattitudinal positions. Since the subjects thought that the victim would react the most unfavorably to the negative task, they apparently did not really expect the victim to be convinced by their statement. They therefore may have justified their counterattitudinal "lie" and its consequences for the victim by changing their perceptions of the negative task to more favorable ones. A re-evaluated negative task which is not "so bad" on second thought makes the perceived experience for the victim somewhat less unpleasant and also alleviates somewhat the gravity of the consequences of their counterattitudinal behavior. On the other hand, counterattitudinal advocacy of a positive task enhanced the enjoyment of the already positively perceived task. When the victim participated in a positive task, he was also expected to react positively even when his immediate reaction was acceptance of the counterattitudinal statement. The increases in favorability observed with the positive task experience may have represented a disclaiming of any possible negative attributions from the victim for the counterattitudinal advocacy. This over-emphatic re-statement of one's original position regarding the favorable nature of the task was consistent

with the expectation that the victim would be gratified by the task experience.

Justification demonstrated conflicting results as a main effect and in the task X justification interaction with the main analyses. However, the results of the Duncan Multiple Range Test with the task favorability items gave weak support to the notion that high justification, compared with low justification, enhanced the situational salience of the counterattitudinal description. That the salience of the counterattitudinal behavior and its implied consequences were heightened by high justification was further supported by the results of the aggression and depression factors where high justification evoked greater negative mood overtones than did low justification. By underscoring the significance of the counterattitudinal behavior following the negative task, the negative consequences were probably amplified. As a result, less opinion change occurred and the task was perceived in less favorable terms under high than under low justification. Heightened counterattitudinal behavior salience following both positive task conditions likewise probably emphasized the repercussions of the counterattitudinal behavior. However, since consequences for the victim were expected eventually to be positive, opinion ratings in line with counterattitudinal advocacy did not occur. Greater justification following a positive task experience may have mitigated any anticipated probability of even a temporarily negative experience for the victim.

Both the results of the task ratings and the mood factors suggested that justification augmented the salience of the counterattitudinal behavior with which it was associated without affecting the specific manner in which the counterattitudinal conflict was resolved. Where high justification was linked with clearly negative consequences for the victim (as with the negative task), both the

mood factors and the task ratings implied its association with unfavorable connotations, perhaps analogous to bribery or corruption. Where high justification was linked with ambiguous immediate consequences for the victim which were likely to be ultimately positive, it highlighted the favorable aspects of the task situation. High justification showed generalization effects from the task setting, being associated with negative perceptions and overtones if the task setting was generally negative and with positive ones if the task setting was generally positive.

Under conditions of low justification, task ratings after counterattitudinal advocacy, compared with task ratings prior to such advocacy, were more supportive of dissonance theory predictions. This was the case especilly when negative consequences were fairly certain to ensue for the victim of the counterattitudinal description. Both the negative task and the positive task followed by feedback regarding the victim's immediate reactions resulted in task re-evaluations in line with the counterattitudinal description. Task re-evaluations of the positive task followed only by counterattitudinal advocacy were not in line with the counterattitudinal advocacy. In the latter condition, the victim could still have been expected to enjoy the task and have a pleasant experience. Therefore subjects may have had little need for resolving the counterattitudinal conflict and whatever tension was generated could be resolved by a re-affirmation of one's original position counter to the counterattitudinal advocacy. The kind of opinion re-alignment hypothesized by dissonance theory which is change in line with the counterattitudinal advocation appeared only where negative repercussions could be expected from the victim and where no extenuating situational aspects were present. Where both of these provisions had not been met, task

ratings shifted counter to the counterattitudinal advocation.

The adjectives-mood list was concerned with whether a dissonance-type disturbance was experienced following a positive task and whether this disturbance was similar to that experienced following counterattitudinal advocacy of a negative task. The aggression-hostility and depression-sadness factors indicated that the positive task with feedback evoked less hostility and depression than either the negative task or the positive task with counterattitudinal advocacy only. In addition, maximum concentration was displayed by subjects following the positive task with feedback while the positive task with feedback was rated intermediately to the other two task conditions on the fatigue and deactivation dimensions. These results suggested that some disturbance did follow counterattitudinal advocacy of the positive task, particularly when accompanied with feedback. Since maximal situational stimulation and minimal guilt-based regret and hostility were reported after the positive task followed by feedback, the disturbance induced by counterattitudinal description of a positive task was of somewhat different composition than the disturbance following the negative task. The possibility of negative consequences for the victim and their implied hostility and regret following the positive task with feedback seemed to be diminished in that there was no substantial presence of aggressive-hostility or guilt-based depression. This disclaiming of responsibility for any negative consequences resulting from one's counterattitudinal statement was consistent with the results of the task favorability and the perception of self and other subject scales. It further suggested that different interpretations of the counterattitudinal behavior were anticipated from the victim.

Further Research Suggestions

One of the problems of this study was how to equate the consequences of the positive and negative tasks given their seeming inherent differences. The secondary data with the adjectives-mood list and the perception of self and other subject scales yielded mixed findings regarding the anticipated consequences for the victim, although there was some basis for concluding that the degree of intensity of consequences of the negative and at least the positive task with feedback were perceived not too differently. These data indicated simultaneously that while magnitude of consequences was not too different, the kind of consequences were expected to be quite different with the two tasks. A possible way of focusing more closely on the consequences of positive and negative tasks would be to systematically vary these for both tasks. Probably the mildest consequences are those anticipated after only counterattitudinal description of a positive task. More intense consequences would necessitate the provision of feedback to the subjects. Such feedback as can be given by a simple evaluative statement by the experimenter (as used in this study) may not be the most compelling. Subjects could, for example, be given the same information by arranging for them to overhear or oversee the victim's response, or by making the victim react more extremely than he did in this study. For instance, the subject could hear the victim express serious reservations about continuing with the experiment.

A comparison of different consequences following a negative task would also be necessary for a complete evaluation of the source of dissonance arousal. The victim could express, with varying degrees of enthusiasm and within the subject's hearing, his looking forward to the experiment. Such a gradation in terms of seriousness and intensity of consequences also requires measurement of the

subject's underlying cognitions. This may or may not be best measured by direct perception of self and other subject items as used in the current study. Perhaps finer differentiations would require more open-ended questions or interviewing after the procedure.

One factor which somewhat biased the present study in favor of dissonance theory was the experimenter's statement to the subject immediately after the counterattitudinal performance. Following the Festinger and Carlsmith (1959) study, the current one provided the subject with an external rationale for shifting his opinion in the direction redicted by dissonance theory. It is possible that this kind of statement is to some degree a source of experimenter effects. In other words, given the counter-attitudinal dilemma, the subject is provided with experimenter cues which in effect tell him how the experimenter thinks he should react. Given the experimenter's evaluations of the situation, unless little possibility of negative evaluations by the victim exists or there are countering positive aspects (as high justification), the easiest solution for the subject may be to accept the cues and interpret the situation accordingly. Therefore dissonance theory predictions may be upheld to some extent by experimenter effects. A simple elimination of the experimenter-rationale or making it more neutral is of theoretical interest in determining the effects on task evaluations.

References

Aronson, E. & J.M. Carlsmith, Performance expectancy as a determinant of actual performance, Journal of Abnormal & Social Psychology, 1962, 65, 178-182

Brehm, J.M. & A.R. Cohen, Explorations in cognitive dissonance, New York: Wiley, 1962

Briscoe, M.E., H.D. Woodyard & M.E. Shaw, Personality impression change as a function of the favorableness of first impressions, Journal of Personality, 1967, 35, 343-357

Carlsmith, J.M., B.E. Collins & R.K. Helmreich, Studies in forced compliance: I.The effect of pressure for compliance on attitude change produced by face-to-face role playing and annonymous essay writing, Journal of Personality & Social Psychology, 1966, 4, 1-13

Cattell, R.B., The dimensional (unitary-component) measurement of anxiety, excitement, effort, stress and other mood reaction patterns, in L. Uhr & J.G. Miller (Editors), Drugs and Behavior, New York: Wiley, 1960

Cartwright, D. & F. Harary, Structural Balance: A generalization of Heider's theory, Psychological Review, 1956, 63, 277-293

Cohen, A.R., An experiment on small rewards for discrepant compliance and attitude change, in J.W. Brehm & A.R. Cohen, Explorations in cognitive dissonance, New York: Wiley, 1962, 73-78

Collins, B.E. & R.K. Helmreich, Studies in forced compliance: II.Contrasting mechanisms of attitude change produced by public-persuasive and private-essays, in C.A. Insko, Theories of Attitude Change, New York: Meredith Publishing, 1967, 240-241

Deutsch, M. R.M. Kraus & N. Rosenau, Dissonance or defensiveness? Journal of Personality, 1962, 30, 16-27

Elms, A.C. & I.L. Janis, Counter-norm attitudes induced by consonant versus dissonant conditions of role-playing, Journal of Experimental Research in Personality, 1965, 1, 50-60

Festinger, L., A theory of cognitive dissonance, Evanston, Ill.: Row, Peterson, 1957

Festinger, L. & J.M. Carlsmith, Cognitive consequences of forced compliance, Journal of Abnormal & Social Psychology, 1959, 58, 203-210

Heider, F., The psychology of interpersonal relations, New York; Wiley, 1958

Janis, I.L. & J.B. Gilmore, The influence of incentive conditions on the success of role playing in modifying attitudes, Journal of Personality & Social Psychology, 1965, 1, 17-27

Lemann, T.B. & R.L. Solomon, Group characteristics as revealed in sociometric patterns and personality ratings, Sociometry, 1952, 15, 7-90

Linder, D.E., J. Cooper & E.E. Jones, Decision freedom as determinant of the role of incentive magnitude in attitude change, Journal of Personality & Social Psychology, 1967, 6, 245-255

McNair, D.M. & M. Lorr, An analysis of mood in neurotics, Journal of Abnormal & Social Psychology, 1964, 69, 620-627

Nowlis, V., Research with the mood adjective check list, in S.S. Tomkins & C.E. Izard (Editors), Affect, cognition and Personality, New York: Springer, 1965, 352-389

Nuttin, J.M., Attitude change after rewarded dissonance and consonant "forced compliance", International Journal of Psychology, 1966, 1, 39-57

Pepitone, A., Some conceptual and empirical problems of consistency models, in S. Feldman (Editor), Cognitive consistency, New York: Academic Press, 1966, 258-295

Rosenberg, M.J., When dissonance fails: On eliminating evaluation apprehension from attitude measurement, Journal of Personality & Social Psychology, 1965, 1, 28-42

Winer, B.J., Statistical principles in experimental design, New York: MnGraw-Hill, 1962

Zuckerman, M., The development of an affect adjective check list for the measurement of anxiety, Journal of Consulting Psychology, 1960, 24, 457-462

Zuckerman, M., B. Lubin, L. Vogel & E. Valerius, Measurement of experimentally induced affects, Journal of Consulting Psychology, 1964, 28, 418-425

Appendix A: General Task Instructions
(Verbal)

This study is concerned with testing the effects of different kinds of task-stimulations. As we all know from everyday experiences, we have all kinds of tasks. These tasks can range all the way from those that we enjoy or think of very positively, through to those that we don't have any strong feeling about, or feel rather neutral about. \ (This was the end of the sentence with the positive task conditions. The sentence was continued with the negative task conditions by adding "and those that we don't especially like or think of in negative terms"). This study will attempt to tap different kinds of tasks that are possible along these lines and see some of their behavioral effects. More specifically, we interested in seeing some of the temporal effects of tasks. That is, we would like to see if people react differently to the same task at earlier and later periods of a given time period. We are also interested in seeing how the task or what is done at earlier times influences and relates to later tasks or what is done at later times.

Appendix B: Negative Task Instructions
(Verbal)

Please read the top page you have in front of you. After you have read it, you can go on directly to the following pages in terms of the instructions.

(Written)

This study will examine patterns in individually produced random number sequences.

The task you are asked to do is as follows. Start on the top line of the page after filling in your name and I.D. number, and write doen any numbers from 1 to 100, using one box for each number. When finished the first line, go on to the following lines until the page is filled. When you are finished a whole page, please hand

Appendix B Continued

the completed page to the experimenter and take another blank ruled sheet off the pile in front of you. Continue this procedure with filling in each successive page until you are stopped by the experimenter.

Appendix C: Positive Task Instructions
(Verbal)

This task will be made up of several smaller tasks. The first thing I will ask you to do will be to make a list of 1 to 10 on a piece of the scratch pad you have in front of you. I would like you to then please arrange in order of your aesthetic preference the portraits you see pasted on the wall in front of you. There is a number alongside each portrait which you can use for identification of each one. What you will end up with is a numerical list indicating some order of preference.

I'll give you a few minutes to do this. Next, I'm going to turn the projector on and have you watch a film about sports activities. These sports activities are a number excerpts which have been selected from several different countries. Following the film, I'm going to ask you to consider the summary of a trial case history. After you have heard the trial summary and thought about the situation, I will ask you to indicate a verdict on it.

Appendix D: Instructions for Jury Case History
(Verbal)

I have here the same summary of a trial case history both on tape and on that page in front of you. I would like you to imagine yourself serving on a jury which is deliberating this case. Please listen to the tape and then consider the situation for a few minutes. After thinking about the case for a few minutes, please turn to the verdict page and indicate a verdict. You can make comments in the other two sections about any points that

Appendix D Continued

may occur to you regarding the situation.

Jury Case History*

John Stacey, age 28, has been charged with breaking into and unlawfully entering the premises of his former employer, William Smith, age 56.

For 10 months prior to the incident, John Stacey had been employed by Smith as an auto mechanic in Smith's garage and auto repair shop. At the time of the incident, Stacey was employed at a rival garage and repair shop.

The dispute between Stacey and his former employer arose over mechanical tools which Stacey had formerly kept in Smith's garage. On the day of the incident, Stacey had come back to Smith's garage to pick up his tool kit. His ex-employer was present and refused to allow Stacey to remove the tool kit, saying that he was keeping the tools until Stacey refunded the back-wages Smith had been obliged to pay him. Smith claimed that he had paid the wages to Stacey under the terms of their contract and without being aware at the time that Stacey had been absent from work for 3 days, since Smith himself had been out of town on business during the time.

The court was told by another employee of Smith's that a heated argument had developed between Stacey and Smith when Stacey came back to claim his tool kit. Smith had threatened to sue Stacey for the wage-refund he said was due him and Stacey had retorted that he'd countersue Smith for theft and unlawful possession of his tool kit. The defendent left Smith's premises then, vowing to"give Smith his".

The defendant was then alleged to have returned to Smith's garage in the evening of the same day with a friend, a former minor league boxer. The testimony said that he had been asked by Stacey to accompany him "in

*In the actual experiment sessions, this was presented on a separate single page.

Appendix D Continued

case there was any trouble".

Another employee of Smith's garage, Mr. Benjamin Dick, who worked the night shift, testified that he saw Stacey enter the garage and head for Mr. Smith's private back office where he knew Smith kept the tool kit. Mr. Dick stated that he asked Stacey "not to make any trouble" for either himself or Mr. Dick, but Stacey ignored him and went after his tool kit. Mr. Dick, being a small-boned, short man, made no attempt to stop Stacey and his companion, but immediately phoned Smith who in turn called the police. While Stacey and his friend were checking the contents of the tool kit, both Smith and the police arrived and apprehended them.

Verdict*

Please comment briefly on the pros and cons as you see them in this case. Use reverse side if you wish.**
Please check ONE of the following alternatives:
I believe that the defendant is

_____INNOCENT

_____GUILTY

of the charged offense.

If you have any qualifications to this verdict, please state them.**

*In the actual experiment sessions, this was presented on a separate page.

**In the actually used verdict page, a blank of about 4 inches followed these lines.

Appendix E: Adjectives-Mood List Instructions (Written)

Each of the following words describes feelings or a mood. Please use the list to describe your feelings <u>at the moment</u> you read each word. If the word definitely describes how you feel at the moment you read it, circle the double check (√√) to the right of the word. For example, if the word is <u>relaxed</u> and you are definitely feeling relaxed at the moment, circle the √√ as follows:

relaxed (√√) √ ? no (This means you definitely feel relaxed at the moment.)

If the word only slightly applies to your feelings at the moment, circle the single check √ as follows:

relaxed √√ (√) ? no (This means you feel slightly relaxed at the moment.)

If the word is not clear to you or you cannot decide whether or not it applies to your feelings at the moment, circle the question mark as follows:

relaxed √√ √ (?) no (This means that you cannot decide whether you are relaxed or not.)

If you definitely decide the word does not apply to your feelings at the moment, circle no as follows:

relaxed √√ √ ? (no) (This means you are definitely not relaxed at the moment.)

Work rapidly. Your first reaction is the best. Please mark all the words. This should take only a few minutes to complete.

Appendix E Continued: Adjectives-Mood List

pleased √√ √ ? no
downhearted √√ √ ? no
lighthearted √√ √ ? no
tense √√ √ ? no
angry √√ √ ? no
cheerful √√ √ ? no
annoyed √√ √ ? no
carefree √√ √ ? no
attentive √√ √ ? no
thoughtful √√ √ ? no
tired √√ √ ? no
affectionate √√ √ ? no
dull √√ √ ? no
kindly √√ √ ? no
regretful √√ √ ? no
skeptical √√ √ ? no
upset √√ √ ? no
lively √√ √ ? no
discouraged √√ √ ? no
leisurely √√ √ ? no
disagreeable √√ √ ? no
cooperative √√ √ ? no
calm √√ √ ? no
active √√ √ ? no
bored √√ √ ? no
happy √√ √ ? no

Appendix F: Task Favorability Scales

Please check your position on each of the following scales.

1.In the experiments I've participated in so far this year, I have generally

enjoyed them very much (11) ——— (1) not enjoyed them

2.The tasks I usually had to do in experiments were

quite dull (1) ——— (11) very enjoyable

very interesting (11) ——— (1) uninteresting

3.I have

not enjoyed very much (1) ——— (11) enjoyed very much

this particular experiment.

4.The task used in this experiment was

very enjoyable (11) ——— (1) quite dull

uninteresting (1) ——— (11) very interesting

5.I feel that I've

learned alot (11) ——— (1) learned very little

of my ability to perform tasks in this experiment.

6.I feel that this experiment's results would contribute

very little (1) ——— (11) a great deal

to scientific inquiry and theory.

7.I

would like to (11) ——— (1) would not like to

participate in another similar experiment.

Appendix G: Experimenter Rationale for the Counteratti-tudinal Statement

(Verbal)

Ok, this is all there is for the task itself. I'd like to tell you something now about the design of the experiment so you'll have some idea of what the study is about. There are actually two groups in the study. One group is the condition under which you were just run which receives essentially mo more information than is really necessary before going ahead with the task. That is, you are given no more in the instructions than what is really necessary for you to be able to go ahead with the procedure. In the other group, in addition to the same basic instructions that you got, an attempt is also made to set up an expectancy in the person before they go ahead with the task. The way in which this is done is that someone who had been through the procedure gives an evaluatively toned statement to another person before the second person goes ahead with the task. The kind of evaluative description the expectancy is meant to get across is like this: (At this point, subjects were shown a page with one of the sets of sentences given in Appendix H.)

Are there any questions about the two expectancy groups as I've described them so far? (Pause for questions.) Ok, if there are no questions (or, "no further questions"), I have perhaps somewhat of an unusual request that I would like to ask of you. I would like to ask you, if you are willing of course, to try to convey those points on the paper to the next scheduled person. The reason I'm asking you is that you have just been through the task, and you are obviously a realistic source of information for the next person. I try to run people in alternate expectancy groups as far as possible

Appendix G Continued

to keep the number of subjects in the groups equal. That is, I try to run one person as in your case with no expectancy before the task, the next person with the expectancy group, then revert back to the no expectancy condition, and so on.

So, if you would be willing to convey this kind of expectancy, it would help a great deal in keeping the numbers in my groups equal.

(With the high justification groups, the following sentence was added at this point:
"If you would be willing to say a few lines like that to the next guy, I can give you a three-dollar voucher which is redeemable at the Bursar's Office".)
(With the low justification groups, no mention was made of the voucher.)

Would you be willing to say something like those sentences I have there to the next guy? (The experimenter pointed to the counterattitudinal statement. Pressure was applied if the subjects hesitated. Lines as "I really would appreciate this very much if you would", and "It'll take only a couple of minutes in actual time" were used until the subject agreed to make the counterattitudinal statement.) With the high justification groups, the experimenter proceeded to write out the voucher on a standard form, handed it to the subject, and gave him instructions about where to take the voucher and receive payment to it.

(The experimenter then continued with the following lines.) Now, the way I usually handle this is that I bring the next scheduled person in here. I introduce you to each other, and I also tell the next person that I have asked you to briefly comment to him on the task befor I get him going with the usual procedure. I then leave you two alone for about two minutes so that you can

Appendix G Continued

make those points there as informal kinds of remarks. When I come back, you are taken out of the room and the second person remains to start the procedure all over again.

I think the next guy to in the waiting room since he had just come in when I checked a few minutes ago. I'll go now and bring him in.

Appendix H: Counterattitudinal Statements (Written)

(For the negative task)*

Expectancy for Group B

The task was interesting and exciting. It was very enjoyable and I had a lot of fun. I really enjoyed myself, and had an interesting time.

(For the positive task)*

Expectancy for Group B

The whole thing is a real bore. The task was dull and unexciting. I didn't find it in the least enjoyable or interesting.

Appendix I: Experimenter's Post-Counterattitudinal Statement

(Verbal)

How did things go? Where you able to get your points across? (Pause.)

(For the Negative Task)

Thanks very much for working on the task and for your help with setting up the expectancy. I hope you didn't mind doing that--most people so far seemed to enjoy it, since they told us afterwards it was quite interesting. You get a chance to see how you react to the task and so forth.

*The statements actually used in the experiment were typed out on separate pages.

Appendix I Continued
(For the Positive Task)

Thanks very much for working on the task and for your help with setting up the expectancy. I hope you didn't mind getting across the expectancy too much. Most people so far at least seemed not to mind this too much, although this is not really a very enjoyable or the most pleasant procedure.

Appendix J: Post-Counterattitudinal Manipulation Instructions for Task Favorability Ratings

(Verbal)

Would you please fill out another set of these sheets? These are the same pages you just did a few minutes ago. The main reason for asking you to go through these measures again is related to the statistical concept of reliability which you may perhaps have taken up in class.

(The subject was then directed to read the page in front of him which contained the following paragraph.)

(Written)

One problem in studies of this sort is that any measures taken are quite idiosyncratic in that they are made up to suit the specific experiment setting. This is not the same kind of measurement as one has in using a standardized test, like an I.Q. test, where one knows something about the test items before using them. For example, one knows something about questions like how well does the test reproduce similar findings when used at different times or somewhat different settings. One way of getting at questions like these with the kinds of measures used in experiments is to simply re-administer the same thing at slightly different time intervals, and try to see how reliable the items are.

Appendix K: Positive Task Feedback

(Verbal)

The experimenter made the following comment to the subject:

Well, that fellow certainly seems to have believed your description! When I went through the instructions, he seemed very inattentive and bored. He seemed quite disinterested in the whole procedure, so he must have really accepted what you told him.

Appendix L: Perception of Self and Other Subject Scales and Instructions

(Verbal Instructions)

This is all there is to the experimental procedure. Although the experiment itself is over, I would like to get some additional information from you. This information is about some of the secondary issues that arise out of placing this kind of study in a somewhat different theoretical framework than the one from which the study was designed.

(Written Instructions)

(The subject was directed to read the page in front of him which contained the following paragraphs.)

One theoretical area to which the present study can be related to is that of information-processing. We can look at this study in terms of information-giving and information-receiving. For example, you were run in one of the conditions where you received no prior evaluative information about the task before going ahead with it. Instead, you yourself were a source of such information for another person. You may therefore have formed impressions as a result of serving as a source of information in this way.

Appendix L Continued

A second theoretical area this study can be examined under is that of personality impression formation. As we know from everyday experiences, different individuals will see the same thing or event in different ways. This effect can be further complicated by whether or not they received any prior information or had any particular expectancies, and also if they had such information, by the source of this information. People also tend to form impressions of others on the basis of the others' likes and dislikes, and how closely these happen to match their own likes and dislikes.

So, although the following scales are not directly related to the main hypotheses being tested here, they are relevant as sources of information on the secondary issues arising out of this study. The scales attempt to measure your reactions to serving as a source of information and any impressions that may have resulted from this. Your help in tapping some of these dimensions will be appreciated. We hope you will find it interesting to reflect on these phases of the experiment.

Appendix L Continued

Please check your position on each of the following scales.

1.How do you think the other subject reacted to you?

11 ——— 1
very well — rather poorly

2.To what extent do you think he accepted your description of the task?

11 ——— 1
totally accepted it — did not really accept it

3.How do you think the other subject would rate your behavior?

1 ——— 11
quite unconvincing — quite convincing

11 ——— 1
accurate — inaccurate

1 ——— 11
rather untruthful — very truthful

4.How do you think the other subject will react to the task?

11 ——— 1
see it as described — not see it as described

1 ——— 11
be quite upset — not be upset

1 ——— 11
be rather "taken back" — be gratified

5.To what extent do you think the other subject will feel you have been accurate in your description?

11 ——— 1
quite accurate — rather misleading

6.To what extent were you disturbed about your behavior to the other subject?

1 ——— 11
quite disturbed — quite undisturbed

7.How do you think the other subject will view you as a person?

11 ——— 1
fairly positively — rather negatively

Appendix M: Total Pre-Counterattitudinal Manipulations Scores (Sum of Items 3-7) in Each Experiment Condition

Task:	Negative		Positive: CA* only		Positive: CA* and Feedback	
Justification:	Low	High	Low	High	Low	High
	13	24	58	42	55	48
	25	7	46	51	57	40
	28	16	38	33	48	55
	23	27	35	38	41	42
	26	21	38	36	40	38
	16	16	46	45	52	38
	27	38	36	43	45	44
	26	15	33	33	35	28
	30	23	33	40	20	48
	30	24	43	31	50	38

*In this appendix and in all subsequent appendices, CA stands for counterattitudinal manipulation.

Appendix N: Pre-Counterattitudinal Manipulation Scores of Each Task Favorability Item in Each Experiment Condition and Summaries of the Analyses of Variance of These Scores

Pre-Counterattitudinal Manipulation Scores of Item 3 Regarding General Experiment Enjoyment

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	5	9	7	11	8
	7	1	10	10	11	7
	6	4	8	6	10	10
	7	5	7	8	7	9
	6	4	7	6	8	6
	1	4	9	9	9	6
	3	6	7	8	6	6
	8	5	6	3	7	5
	5	3	7	7	4	10
	7	3	8	8	10	7
Mean:	5.2	4.0	7.5	7.2	8.3	7.4

Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of Item 3

Source of Variation	df	Mean Square	F
A: Justification	1	10.15	
B: Task	2	63.65	17.78*
A X B	2	.45	
Error	54	3.58	

*p. .01

Appendix N Continued

Pre-Counterattitudinal Manipulation Scores of Item 4 Regarding Task Enjoyment and Interest

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	2	11	22	17	20	18
	7	2	15	19	22	14
	7	6	15	14	20	21
	2	8	12	15	17	18
	2	6	14	13	16	16
	6	3	17	17	17	16
	4	12	15	18	19	15
	9	2	13	15	14	12
	10	5	11	14	8	17
	6	7	16	14	15	15
Means:	5.5	6.2	15.0	15.6	16.8	16.2

Pre-Counterattitudinal Manipulation Scores of Item 5 Regarding Degree of Felt Learning

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	1	3	8	2	8	5
	2	1	6	6	9	6
	3	3	5	3	5	6
	1	2	4	1	5	5
	3	2	3	6	2	4
	1	6	6	7	11	1
	9	7	3	2	5	7
	1	1	3	3	7	6
	3	3	3	8	3	4
	2	3	4	3	7	2
Means:	2.6	3.7	4.5	4.1	6.2	4.8

Appendix N Continued

Pre-Counterattitudinal Manipulation Scores of Item 6

Regarding Degree of Experiment Contribution to Science

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	5	1	8	8	6	7
	6	5	6	9	6	7
	6	2	5	4	7	9
	6	6	5	7	7	7
	6	6	7	4	6	6
	6	2	6	5	5	6
	9	8	7	6	11	9
	6	1	5	4	7	2
	6	3	4	5	3	8
	5	7	7	3	8	8
Means:	6.1	4.2	6.1	5.5	6.6	5.9

Pre-Counterattitudinal Manipulation Scores of Item 7

Regarding Desire to Participate in a Similar Experiment

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	4	11	8	10	10
	3	2	9	8	9	6
	6	1	5	6	6	9
	7	6	7	7	5	8
	9	3	7	7	8	6
	2	1	8	7	10	9
	2	5	6	9	8	7
	2	6	6	8	7	3
	6	9	8	6	2	9
	10	4	8	3	10	6
Means:	5.0	4.1	7.5	6.9	7.4	7.3

Appendix N: Continued

Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of Item 4

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	680.55	73.25*
A X B	2	2.616	
Error	54	9.29	

*p.<.001

Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of Item 5

Source of Variation	df	Mean Square	F
A: Justification	1	3.75	
B: Task	2	32.716	6.62*
A X B	2	5.55	
Error	54	4.94	

*p.<.01

Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of Item 6

Source of Variation	df	Mean Square	F
A: Justification	1	8.066	
B: Task	2	13.816	3.62*
A X B	2	6.816	
Error	54	3.62	

*p.<.05

Summary of the Analysis of Variance of Pre-Counterattitudinal Manipulation Scores of Item 7

Source of Variation	df	Mean Square	F
A: Justification	1	4.816	
B: Task	2	50.616	9.40*
A X B	2	.616	
Error	54	5.39	

*p.<.01

Appendix O: Total Task Favorability Post-Counterattitudinal Scores (Sum of Items 3-7) in Each Experiment Condition

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	17	22	51	49	49	45
	36	25	46	48	58	43
	35	13	40	36	45	62
	31	23	37	44	38	47
	32	38	39	39	30	36
	27	18	50	47	59	49
	42	31	34	47	49	46
	39	15	35	40	33	26
	46	22	40	41	25	50
	37	46	43	35	38	47

Appendix P: Post-Counterattitudinal Manipulation Scores of Each Task Favorability Item in Each Experiment Condition

Post-Counterattitudinal Manipulation Scores of Item 3 Regarding General Experiment Enjoyment

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	5	9	8	3	9
	7	5	9	9	11	7
	8	2	8	6	10	11
	8	4	7	9	6	3
	6	8	7	7	7	4
	2	3	11	10	10	9
	9	6	7	9	11	8
	7	4	6	7	7	7
	2	3	8	6	3	9
	7	8	8	8	7	9

Appendix P Continued

Post-Counterattitudinal Manipulation Scores of Item 4 Regarding Task Interest and Enjoyment

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	6	9	18	16	21	17
	15	11	17	18	22	15
	12	5	15	12	20	22
	4	3	14	18	13	16
	5	13	13	13	12	14
	9	3	19	18	21	18
	15	10	12	20	11	16
	13	2	13	14	14	10
	18	6	15	14	12	16
	13	17	14	14	13	15

Post-Counterattitudinal Manipulation Scores of Item 5 Regarding Degree of Perceived Learning

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	2	6	8	8	5
	4	4	6	6	8	6
	5	2	6	6	2	10
	2	4	4	2	7	7
	6	6	7	7	3	6
	4	4	6	2	11	4
	7	1	3	6	6	6
	8	2	5	7	7	3
	4	3	3	7	4	8
	4	3	6	2	5	8

Appendix P Continued

Post-Counterattitudinal Manipulation Scores of Item 6

Regarding Degree of Experiment Contribution to Science

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	3	8	8	7	4
	6	5	7	7	6	7
	6	2	6	7	6	8
	9	5	5	8	7	8
	6	5	7	5	4	6
	6	7	6	7	6	8
	8	4	5	5	9	9
	9	3	5	7	7	3
	9	10	6	3	4	8
	5	6	6	5	6	8

Post-Counterattitudinal Manipulation Scores of Item 7

Regrading Desire to Participate in a Similar Experiment

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	3	10	9	10	10
	4	4	7	8	11	8
	4	2	5	5	7	11
	8	10	7	7	5	8
	9	6	5	7	4	6
	6	4	8	9	11	10
	3	4	7	8	8	7
	9	3	6	7	5	3
	6	8	8	3	2	9
	8	1	9	7	7	7

Appendix P Continued

Item 3: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores Regarding General Experiment Enjoyment

Source of Variation	df	Mean Square	F
A: Justification	1	2.016	
B: Task	2	39.20	8.02*
A X B	2	2.066	
Error	54	4.97	

*p.<.01

Item 3: Mean General Experiment Enjoyment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	4.8_{bc}	7.9_{a}	7.6_{a}
Low Justification	5.9_{ac}	7.8_{a}	7.5_{a}

Item 4: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores Regarding Degree of Task Interest and Enjoyment

Source of Variation	df	Mean Square	F
A: Justification	1	9.60	
B: Task	2	255.716	17.39*
A X B	2	20.45	
Error	54	14.70	

*p.<.01

Item 4: Mean Task Interest and Enjoyment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	7.9_{a}	15.7_{b}	15.9_{b}
Low Justification	11.0_{c}	15.0_{b}	15.9_{b}

Appendix P Continued

Item 5: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores Regarding Perceived Degree of Learning

Source of Variation	df	Mean Square	F
A: Justification	1	3.75	
B: Task	2	31.85	7.60*
A X B	2	6.35	
Error	54	4.19	

*p. .01

Item 5: Mean Degree of Perceived Learning in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	2.8_a	5.3_b	6.3_b
Low Justification	4.6_b	5.2_b	6.1_b

Item 6: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores Regarding Degree of Experiment Contribution to Science

Source of Variation	df	Mean Square	F
A: Justification	1	1.35	
B: Task	2	2.466	
A X B	2	7.80	2.44
Error	54	3.16	

Item 6: Mean Degree of Experiment Contribution to Science in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	5.0_a	6.2_a	6.9_a
Low Justification	6.7_a	6.1_a	6.2_a

Appendix P Continued

Item 7: Summary of the Analysis of Variance of Post-Counterattitudinal Manipulation Scores Regarding Desire to Participate in a Similar Experiment

Source of Variation	df	Mean Square	F
A: Justification	1	1.067	
B: Task	2	27.95	4.90*
A X B	2	7.216	
Error	54	5.68	

*p. .05

Item 7: Mean Degree of Desire to Participate in a Similar Experiment in Each Experiment Condition

Task:	Negative	Positive: CA only	Positive: CA and Feedback
High Justification	4.5_{b}	7.0_{ac}	7.9_{ac}
Low Justification	6.0_{bc}	7.2_{ac}	7.0_{ac}

Appendix Q: Mood-Adjectives Which Yielded Nonsignificant Results with the Analysis of Variance Post-Counterattitudinal Manipulation Scores of "Pleased"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	2	2	2	2
	3	3	3	2	2	2
	2	2	1	2	2	2
	1	0	1	3	2	2
	1	3	2	2	1	2
	1	0	2	2	2	3
	1	2	2	2	2	2
	3	1	2	2	2	1
	3	3	1	1	1	1
	2	2	2	2	2	1

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Downhearted"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	2	0	0
	2	2	3	0	2	0
	0	0	0	2	0	3
	0	0	0	0	0	0
	1	1	0	1	1	0
	0	2	0	0	0	0
	0	2	0	0	0	0
	0	0	1	1	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0

Post-Counterattitudinal Manipulation Scores of "Downhearted"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	0	0	0
	2	2	1	0	2	0
	2	0	0	0	0	1
	1	0	0	0	2	0
	0	0	0	0	1	0
	0	2	0	0	0	0
	0	2	0	0	0	0
	0	0	0	1	0	0
	0	0	3	0	0	0
	0	0	0	0	0	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Lighthearted"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	0	3	3
	1	1	1	2	0	0
	0	2	2	0	1	0
	0	0	2	0	2	2
	0	2	3	2	2	2
	0	0	2	2	2	1
	2	3	2	2	0	2
	2	2	2	1	0	2
	0	1	0	2	2	2
	2	2	2	2	2	2

Post-Counterattitudinal Manipulation Scores of "Lighthearted"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	2	2	2	2
	3	1	1	3	0	0
	2	2	2	2	1	2
	0	0	2	2	3	2
	0	2	2	2	2	2
	0	0	2	2	2	3
	3	2	2	3	0	2
	1	1	2	1	0	1
	2	2	0	2	2	2
	2	2	2	2	2	1

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Tense"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	0	3	0	0
	0	3	0	0	0	2
	2	3	0	0	0	2
	2	2	0	1	2	0
	2	0	0	2	0	0
	0	3	0	0	0	0
	0	2	0	0	2	0
	0	0	0	0	2	0
	0	0	2	0	0	2
	1	0	0	0	0	1

Post-Counterattitudinal Manipulation Scores of "Tense"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	0	3	0	1
	0	2	0	1	2	2
	2	0	0	0	0	2
	1	1	0	1	1	0
	2	0	0	2	0	0
	0	3	0	0	0	0
	0	3	0	2	0	2
	0	2	0	0	2	0
	0	0	2	0	0	2
	1	0	0	0	0	0

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Cheerful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	0	2	1	2	2
	3	2	3	2	0	0
	2	2	1	2	2	2
	1	0	2	2	2	2
	0	2	2	2	2	2
	0	0	2	3	2	2
	3	3	2	2	2	2
	1	2	2	2	0	2
	2	2	0	2	2	2
	2	2	2	2	2	2

Pre-Counterattitudinal Manipulation Scores of "Annoyed"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	0	0	0	1
	1	0	0	0	1	0
	0	0	1	0	0	0
	1	0	0	0	1	0
	1	0	0	0	1	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	2	1	0	1	2
	0	2	0	0	0	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Carefree"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	1	0	3	0
	2	0	1	3	0	0
	2	0	1	1	1	3
	0	0	2	0	2	2
	2	1	2	2	1	1
	2	0	3	3	0	2
	0	2	1	2	0	0
	3	1	1	2	0	1
	3	1	3	2	1	1
	2	0	3	0	2	1

Post-Counterattitudinal Manipulation Scores of "Carefree"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	0	2	2
	3	1	1	3	1	0
	0	1	1	2	2	2
	0	0	2	1	2	2
	0	1	3	2	2	2
	2	0	2	2	0	2
	3	2	1	2	0	2
	1	1	2	2	0	1
	3	2	3	2	1	1
	2	1	2	2	2	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Attentive"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	3	2	2	2
	3	2	1	2	2	2
	2	3	2	2	3	2
	1	0	2	3	2	3
	0	1	2	2	2	2
	3	2	2	2	3	3
	2	0	1	2	2	3
	3	1	2	2	0	3
	1	3	0	2	2	2
	3	2	2	2	3	2

Post-Counterattitudinal Manipulation Scores of "Attentive"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	2	2	2	2
	2	1	3	2	1	2
	0	0	2	1	3	3
	2	0	2	1	2	3
	2	1	2	2	2	2
	3	2	1	2	3	3
	2	3	2	2	2	3
	2	1	2	2	0	2
	2	3	0	2	2	2
	2	1	1	2	2	1

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Thoughtful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	0	3	3	2
	3	3	3	2	2	3
	2	0	0	2	3	0
	2	0	2	3	2	2
	3	2	0	2	2	2
	2	3	1	2	3	3
	0	3	2	1	3	3
	1	3	3	2	0	2
	0	2	3	3	2	2
	0	3	1	2	3	2

Pre-Counterattitudinal Manipulation Scores of "Tired"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	0	0	0	0
	3	3	3	1	2	0
	2	0	0	2	2	0
	2	0	2	2	2	2
	3	2	0	2	2	2
	2	3	1	0	0	2
	0	3	2	0	0	3
	1	3	3	0	2	0
	0	2	3	0	3	2
	0	3	1	3	0	0

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Tired"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	1	2	0	0	0	2
	3	3	3	1	2	0
	2	0	0	2	0	0
	1	0	1	0	0	2
	3	1	0	1	2	1
	2	3	0	0	0	0
	0	2	0	0	0	3
	0	3	3	0	3	0
	0	0	1	0	3	2
	0	2	1	3	0	2

Pre-Counterattitudinal Manipulation Scores of "Affectionate"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	1	1	0	1	2	1
	3	3	3	2	1	0
	0	0	1	0	1	3
	2	0	2	0	1	1
	1	1	3	1	2	2
	0	2	2	1	2	3
	2	2	3	2	0	0
	0	2	1	0	2	1
	0	0	0	1	2	1
	2	3	1	3	2	1

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Affectionate"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	1	3	1
	2	2	3	2	2	1
	0	2	1	0	1	2
	1	0	2	0	1	0
	1	1	3	2	1	2
	0	1	2	2	1	3
	1	3	3	2	0	2
	1	2	1	2	0	1
	2	0	0	1	2	1
	2	3	1	3	2	0

Pre-Counterattitudinal Manipulation Scores of "Kindly"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	1	2	1	3
	2	1	3	2	2	1
	1	0	1	2	0	3
	1	0	2	0	2	2
	2	2	1	2	2	3
	0	0	2	1	2	2
	2	2	2	1	2	1
	1	2	1	2	1	2
	2	0	0	1	2	2
	2	2	2	2	2	2

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Kindly"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	1	0	1	2
	3	2	3	2	2	1
	0	1	1	2	2	2
	1	0	2	1	2	2
	2	2	2	2	2	2
	0	0	2	1	2	2
	2	2	2	1	2	1
	1	2	1	2	0	1
	2	0	0	2	2	2
	2	2	3	2	2	2

Pre-Counterattitudinal Manipulation Scores of "Regretful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	0	0	0	0
	0	3	3	1	0	0
	0	0	0	2	0	2
	3	0	0	0	2	0
	1	0	0	2	0	0
	0	3	1	1	0	0
	2	3	0	0	0	0
	0	1	1	0	1	2
	0	0	0	1	0	2
	0	0	0	2	0	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Skeptical"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	1	3	0	0	0
	0	0	0	1	2	2
	2	2	2	3	0	1
	3	1	0	0	1	0
	3	0	0	1	0	0
	1	3	2	0	0	2
	2	3	0	2	3	3
	0	3	1	1	1	0
	0	2	3	2	2	2
	0	3	1	0	1	0

Post-Counterattitudinal Manipulation Scores of "Skeptical"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	2	2	0	0	1
	0	2	1	1	2	2
	2	0	2	0	0	0
	3	1	0	0	1	0
	3	0	1	1	1	0
	0	2	1	2	0	2
	2	2	0	2	2	1
	1	1	1	2	2	2
	1	1	3	1	3	2
	1	0	0	0	2	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Upset"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	2	0	0
	0	3	2	0	2	0
	0	0	0	0	0	3
	2	0	0	0	1	0
	2	0	0	1	0	0
	0	0	0	0	0	0
	0	3	1	0	0	0
	0	0	1	0	0	0
	0	0	3	0	0	0
	1	0	0	0	0	0

Post-Counterattitudinal Manipulation Scores of "Upset"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	0	0	0
	0	2	0	0	1	0
	0	0	0	0	0	0
	2	0	0	0	1	0
	1	0	0	1	0	0
	0	0	0	0	0	0
	0	2	0	0	0	0
	0	1	0	0	0	0
	0	0	2	0	1	0
	2	0	0	0	0	0

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Discouraged"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	2	0	0	0	0
	2	2	3	1	1	0
	0	2	0	0	0	3
	2	0	0	0	0	0
	2	0	0	1	0	0
	0	2	1	0	0	0
	0	3	0	0	0	0
	0	0	1	0	0	2
	0	0	3	1	0	0
	0	0	0	0	0	0

Post-Counterattitudinal Manipulation Scores of "Leisurely"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	1	2	2
	3	1	1	2	2	2
	0	0	2	2	2	3
	0	0	2	2	2	2
	2	2	1	2	1	2
	0	1	2	1	0	3
	2	3	3	1	0	2
	1	1	1	2	0	1
	2	2	3	2	1	2
	2	1	2	2	2	2

Appendix Q Continued

Pre-Counterattitudinal Manipulation Scores of "Disagreeable"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	0	0	0	0	0
	0	0	0	1	1	0
	0	0	0	0	2	0
	2	0	0	0	0	0
	1	0	3	0	0	0
	0	3	0	0	0	0
	0	2	0	0	0	0
	1	0	1	0	0	0
	0	0	2	1	0	0
	0	0	0	0	0	0

Pre-Counterattitudinal Manipulation Scores of "Cooperative"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	2	3	1	3
	3	2	3	3	2	2
	2	3	2	2	3	2
	1	0	2	2	2	2
	2	3	3	3	2	3
	2	0	3	3	3	3
	2	3	2	2	3	3
	1	3	2	3	1	2
	2	3	0	2	2	2
	2	2	3	3	3	3

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Cooperative"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	2	2	2	3
	3	2	3	3	2	2
	2	2	2	2	3	3
	1	0	2	3	2	2
	2	3	2	2	2	3
	3	0	3	2	3	2
	2	3	2	2	2	2
	2	2	2	3	0	3
	3	3	0	2	2	2
	2	2	3	2	3	2

Pre-Counterattitudinal Manipulation Scores of "Active"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	1	2	3	2
	2	2	2	3	0	2
	0	0	1	0	2	0
	3	0	0	0	2	0
	0	0	1	2	2	2
	0	0	1	2	2	2
	2	2	2	2	0	0
	0	0	1	2	0	0
	2	3	1	2	2	2
	2	1	2	2	1	0

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Active"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	0	2	1	1	2
	2	2	3	3	1	1
	0	2	1	0	2	2
	3	0	1	2	1	0
	0	2	1	2	0	2
	0	0	1	2	2	3
	0	3	2	2	0	2
	1	0	1	2	0	1
	3	2	0	1	1	1
	2	1	3	2	2	0

Pre-Counterattitudinal Manipulation Scores of "Calm"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	2	2	0	2	3
	2	0	3	2	2	2
	2	2	2	0	3	3
	0	1	3	2	2	2
	3	3	2	3	3	3
	0	0	3	3	2	2
	2	2	3	2	3	3
	2	3	2	3	0	3
	3	3	0	2	2	2
	2	2	3	2	3	3

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Calm"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	1	3	0	2	3
	2	1	3	2	1	2
	0	2	2	2	3	2
	0	1	2	3	2	2
	1	3	3	3	2	2
	3	0	3	2	2	2
	2	3	2	2	2	2
	2	2	2	3	0	3
	3	3	0	2	2	1
	1	2	2	2	3	3

Pre-Counterattitudinal Manipulation Scores of "Happy"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	3	1	2	3
	2	3	1	3	1	2
	2	0	2	0	3	0
	2	0	2	0	2	2
	1	3	0	2	2	2
	2	0	3	3	2	2
	2	2	2	3	2	2
	0	3	1	2	0	2
	1	2	0	2	1	2
	2	2	3	2	3	2

Appendix Q Continued

Post-Counterattitudinal Manipulation Scores of "Happy"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	1	2	2
	2	1	2	3	0	0
	0	2	2	2	3	2
	2	0	2	2	2	3
	1	2	1	3	2	2
	1	0	3	3	2	2
	2	1	2	3	2	2
	0	2	3	1	0	2
	3	2	1	2	2	2
	2	2	3	2	3	3

Appendix R: Scores of Mood-Adjectives Which Yielded Significant Results with the Analysis of Variance

Pre-Counterattitudinal Manipulation Scores of "Pleased"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	0	2	2
	2	0	0	2	1	0
	1	0	1	2	1	1
	0	0	1	2	1	2
	0	2	1	1	1	2
	0	0	1	2	2	2
	0	2	2	2	0	2
	1	1	1	1	1	1
	1	1	1	1	2	2
	1	1	2	2	2	1

Appendix R Continued

Pre-Counterattitudinal Manipulation Scores of "Angry"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	0	0	0	0	0
	3	3	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0

Post-Counterattitudinal Manipulation Scores of "Angry"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	0	0	0
	2	0	0	0	0	0
	0	0	0	0	0	0
	0	0	1	0	0	0
	1	0	0	0	0	0
	0	3	0	0	0	0
	0	2	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	1
	0	0	0	0	0	0

Appendix R Continued

Pre-Counterattitudinal Manipulation Scores of "Cheerful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	2	3	3
	2	0	3	3	1	0
	0	0	1	2	2	2
	0	0	2	0	1	2
	0	2	2	0	2	2
	0	0	2	2	2	1
	2	3	2	2	2	2
	2	2	2	1	0	1
	1	1	0	2	2	2
	2	0	2	3	2	2

Post-Counterattitudinal Manipulation Scores of "Annoyed"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	2	0	0	0	1
	2	2	2	0	0	0
	0	0	1	0	0	0
	0	0	1	0	0	0
	2	0	0	0	1	0
	0	3	0	0	0	0
	0	2	0	0	0	0
	0	0	0	0	0	0
	0	0	2	0	0	2
	0	0	0	0	0	0

Appendix R Continued

Post-Counterattitudinal Manipulation Scores of "Thoughtful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	2	0	3	3	3
	2	3	3	2	2	2
	2	0	0	0	3	3
	1	0	1	0	2	2
	3	1	0	2	2	2
	2	3	0	2	3	0
	0	2	0	2	3	3
	0	3	3	2	0	2
	0	0	1	2	2	3
	0	2	1	2	2	2

Pre-Counterattitudinal Manipulation Scores of "Dull"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	1	1	0	0	0
	2	2	1	0	2	0
	2	2	0	0	0	0
	0	2	1	0	0	0
	3	0	0	2	1	0
	2	3	0	0	0	0
	0	3	1	0	0	2
	0	3	0	0	1	0
	1	2	2	0	0	1
	0	0	1	1	0	0

Appendix R Continued

Post-Counterattitudinal Manipulation Scores of "Dull"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	2	0	0	0	0
	2	1	1	0	1	0
	2	0	0	0	0	0
	0	2	0	0	0	0
	3	0	0	0	0	0
	1	3	0	0	0	0
	0	2	1	0	0	0
	0	3	0	0	0	0
	0	0	3	0	1	1
	1	0	0	0	0	0

Post-Counterattitudinal Manipulation Scores of "Regretful"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	0	0	0	0	0
	2	0	3	1	0	0
	0	2	0	0	0	0
	2	0	0	0	0	0
	1	0	0	1	0	0
	0	3	1	0	0	0
	0	3	0	0	0	0
	0	1	1	0	0	0
	0	0	0	0	0	1
	1	0	1	0	0	0

Appendix R Continued

Pre-Counterattitudinal Manipulation Scores of "Lively"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	2	2	2
	0	0	3	3	0	1
	0	0	1	2	2	0
	3	0	0	0	1	2
	0	1	2	2	2	2
	2	1	2	2	2	2
	2	2	2	1	0	2
	0	0	0	2	0	1
	2	2	0	1	2	2
	0	0	2	2	2	1

Post-Counterattitudinal Manipulation Scores of "Lively"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	2	0	2	2
	1	1	3	2	1	1
	0	2	1	2	2	2
	2	0	2	2	1	2
	0	2	2	3	1	2
	2	0	2	2	2	2
	1	3	2	2	0	1
	2	0	2	2	0	1
	2	2	0	1	2	2
	0	2	3	2	2	1

Appendix R Continued

Post-Counterattitudinal Manipulation Scores of "Discouraged"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	0	2	0	0	0	0
	0	2	1	0	1	0
	0	0	0	0	0	2
	0	0	0	0	0	0
	1	0	0	0	0	0
	0	2	1	0	0	0
	0	2	0	0	0	0
	0	1	0	0	0	1
	0	0	3	1	0	1
	0	0	0	1	0	0

Pre-Counterattitudinal Manipulation Scores of "Leisurely"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	0	0	2	0	2	3
	3	1	1	3	2	2
	0	2	2	2	3	2
	0	0	2	0	2	2
	0	2	2	2	2	2
	0	0	2	2	1	3
	0	2	3	2	2	3
	2	3	1	3	0	1
	0	2	2	2	1	2
	2	2	3	3	2	0

Appendix R Continued

Post-Counterattitudinal Manipulation Scores of "Disagreeable"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	0	1	0	0	0	0
	0	1	0	0	1	0
	0	0	0	0	0	0
	2	0	0	0	0	0
	1	0	0	0	0	0
	0	3	1	0	0	0
	0	2	0	0	0	0
	1	0	0	0	0	0
	0	0	0	1	0	1
	0	0	0	0	0	0

Pre-Counterattitudinal Manipulation Scores of "Bored"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	2	0	0	0	0
	2	3	2	0	0	0
	0	3	0	1	0	0
	0	1	0	0	0	0
	2	2	0	2	1	0
	2	2	0	0	0	0
	0	3	0	1	0	0
	1	0	1	1	1	1
	0	1	1	1	2	0
	0	0	0	0	0	1

Appendix R Continued

Post-Counterattitudinal Manipulation Scores of "Bored"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	2	0	0	0	0
	2	2	1	0	1	0
	0	2	0	0	0	0
	0	2	1	0	2	0
	2	0	0	0	0	0
	2	3	0	0	0	0
	0	2	0	0	0	1
	0	2	1	0	2	1
	1	0	0	0	2	0
	0	1	0	0	0	0

Change Scores of "Disagreeable"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	-2	1	0	0	0	0
	0	1	0	-1	0	0
	0	0	0	0	-2	0
	0	0	0	0	0	0
	0	0	-3	0	0	0
	0	0	1	0	0	0
	0	0	0	0	0	0
	0	0	-1	0	0	0
	0	0	-2	0	0	1
	0	0	0	0	0	0

Appendix R Continued

Change Scores of "Lighthearted"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	0	0	2	-1	-1
	2	0	0	1	0	0
	2	0	0	2	0	2
	0	0	0	2	1	0
	0	0	-1	0	0	0
	0	0	0	0	0	2
	1	-1	0	1	0	0
	-1	-1	0	0	0	-1
	2	1	0	0	0	0
	0	0	0	0	0	-1

Change Scores of "Pleased"

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	0	0	2	0	0
	1	3	3	0	1	2
	1	2	0	0	-1	1
	1	0	0	1	1	0
	1	1	1	1	0	0
	1	0	1	0	0	1
	0	0	0	0	2	0
	2	0	1	1	1	0
	2	2	0	0	-1	-1
	1	1	0	0	0	0

Appendix S: Raw Scores and Summaries of Analyses of Variance (Yielding Nonsignificant Results) of Post-Experiment Items Regarding the Perception of Self and Other Subject

Scores of Item 1 Regarding How Well the Other Subject was Thought to have Reacted to Oneself

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	7	8	4	7	10	2
	8	6	4	8	5	7
	8	8	4	4	4	9
	8	7	8	9	8	7
	3	9	8	8	3	6
	6	3	11	9	8	3
	8	7	7	8	11	3
	8	5	5	9	7	9
	5	2	2	7	8	9
	6	7	6	8	6	8

Summary of the Analysis of Variance of Post-Experiment Item 1 Scores

Source of Variation	df	Mean Square	F
A: Justification	1	.60	
B: Task	2	.616	
A X B	2	9.65	
Error	54	5.18	

Appendix S Continued

Scores of Item 2 Regarding the Extent to Which the Other Subject was Thought to have Accepted One's Task Description

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	8	8	5	7	11	2
	8	8	6	9	5	9
	8	10	7	4	5	9
	8	6	9	7	11	9
	1	9	10	5	3	7
	3	2	10	7	10	4
	7	5	6	7	11	8
	8	2	4	9	6	7
	3	3	3	3	8	10
	4	6	10	9	5	8

Summary of the Analysis of Variance of Post-Experiment Item 2 Scores

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	.80	
A X B	2	3.466	
Error	54	6.54	

Appendix S Continued

Scores of Item 3 Regarding How Well the Other Subject was Expected to Rate One's Behavior

(a)Degree of Convincingness the Other Subject was Expected to Attribute to Own Behavior

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	7	6	9	9	3	10
	8	8	7	8	5	9
	7	9	7	6	5	9
	6	6	8	6	5	6
	6	8	9	7	5	7
	3	2	10	7	10	7
	8	7	7	9	9	5
	8	5	6	8	7	7
	3	3	4	8	8	7
	7	9	9	8	8	7

(b)Degree of Accuracy the Other Subject was Expected to Attribute to Own Behavior

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	9	3	8	9	9
	8	1	6	9	5	8
	3	11	5	4	5	9
	5	8	8	4	6	4
	8	8	8	7	7	8
	7	1	11	7	10	7
	6	7	4	6	11	2
	6	8	7	9	8	8
	3	3	7	7	8	5
	5	9	6	2	7	7

Appendix S Continued

(c) Degree of Truthfulness the Other Subject was Expected to Attribute to Own Behavior

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	9	3	7	8	10
	7	1	6	8	7	5
	3	10	5	4	5	9
	5	3	7	5	9	3
	6	8	10	8	5	7
	5	1	10	7	9	6
	6	9	3	7	8	4
	6	3	6	9	9	9
	3	10	4	6	8	7
	6	10	5	7	8	6

Summary of the Analysis of Variance of Post-Experiment Item 3 (Sum of a-c) Scores

Source of Variation	df	Mean Square	F
A: Justification	1	8.066	
B: Task	2	64.466	2.071
A X B	2	18.466	
Error	54	31.11	

Appendix S Continued

Scores of Item 4 Regarding How the Other Subject was Expected to React to the Task

(a) Degree to Which Other Subject was Expected to React to the Task as Described by Oneself

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	3	9	3	7	9	2
	3	1	9	8	5	8
	2	10	6	6	4	9
	5	5	8	8	4	3
	9	9	5	7	5	8
	6	5	4	2	9	8
	8	7	3	2	11	4
	5	2	7	4	7	9
	4	4	5	8	8	7
	5	2	5	7	5	7

(b) Degree to Which the Other Subject was Expected to be Upset About the Task

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	6	5	8	9	3
	3	1	5	5	5	8
	7	5	6	6	8	10
	10	5	9	11	8	7
	7	5	7	8	7	9
	6	8	4	8	9	7
	3	8	10	3	11	9
	7	10	6	6	9	8
	6	10	8	7	9	7
	6	9	8	6	10	9

Appendix S Continued

(c)Degree to Which the Other Subject was Expected to be "Taken Back" or Gratified

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	6	4	8	5	1
	3	1	2	6	5	7
	4	5	4	6	8	4
	6	4	7	5	6	5
	3	6	5	7	7	6
	6	5	4	7	9	7
	3	7	7	2	6	8
	6	5	5	3	6	6
	6	8	4	5	8	7
	5	2	6	7	8	6

Scores of Item 5 Regarding How Accurate or Misleading One's Description was Expected to be Judged by the Other Subject

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	1	10	3	8	7	2
	2	1	6	8	5	7
	3	10	5	9	3	6
	4	4	7	5	8	3
	1	9	4	8	4	6
	7	1	3	3	2	7
	3	4	2	3	11	4
	5	1	6	8	7	8
	2	9	3	8	7	6
	4	2	4	4	7	7

Appendix S Continued

Summary of the Analysis of Variance of Post-Experiment Item 5 Scores

Source of Variation	df	Mean Square	F
A: Justification	1	20.4166	3.21
B: Task	2	15.266	
A X B	2	10.466	
Error	54	6.35	

Scores of Item 6 Regarding the Extent of Self-Rated Disturbance About the Counterattitudinal Behavior

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:	Low	High	Low	High	Low	High
	11	6	9	8	1	6
	8	4	11	5	10	4
	4	9	7	4	8	10
	10	9	10	8	9	8
	2	6	4	8	4	10
	11	11	4	7	5	8
	9	6	11	2	11	10
	8	5	4	9	7	10
	8	10	11	8	11	8
	7	10	10	8	10	10

Summary of the Analysis of Variance of Post-Experiment Item 6 Scores

Source of Variation	df	Mean Square	F
A: Justification	1	1.066	
B: Task	2	1.80	
A X B	2	6.066	
Error	54	7.40	

Appendix S Continued

Scores of Item 7 Regarding How Positively the Other Subject was Expected to View Oneself as a Person

Task:	Negative		Positive: CA only		Positive: CA and Feedback	
Justification:						
	Low	High	Low	High	Low	High
	2	6	3	9	8	1
	4	1	6	6	3	3
	3	10	5	4	7	3
	9	4	8	6	3	3
	3	8	8	8	3	7
	6	8	4	5	3	6
	3	7	3	3	8	2
	6	7	6	8	7	9
	6	4	3	4	6	5
	7	5	9	5	7	9

Summary of the Analysis of Variance of Post-Experiment Item 7 Scores

Source of Variation	df	Mean Square	F
A: Justification	1	.816	
B: Task	2	1.266	
A X B	2	4.066	
Error	54	5.65	