

## CHANGES IN INTERPERSONAL PERCEPTION AS A MEANS OF REDUCING COGNITIVE DISSONANCE<sup>1</sup>

KEITH E. DAVIS AND EDWARD E. JONES

*Duke University*

AMONG the problem areas to which Festinger's (1957) theory of cognitive dissonance may be applied, none has been as intensively explored in recent experiments as the area of attitude change. The paradigm of creating in an experimental group high dissonance that may be reduced by alterations of belief or feeling has been applied with reference to such attitudinal objects as toys (Brehm & Cohen, 1959b), consumer objects (Brehm, 1956), the interest value of a particular experimental task (Brehm & Cohen, 1959a; Festinger & Carlsmith, 1959), non-favored vegetables (Brehm, 1959), membership in a discussion group (Aronson & Mills, 1959), marriage before 23 (Cohen, Terry, & Jones, 1959), and cheating (Mills, 1958). In spite of the heterogeneity of research settings, almost all of these studies have involved the creation of cognitive dissonance by inducing the subject (*S*) to engage in some behavior running counter to his private belief. It has been theoretically proposed and empirically verified that, above the minimum of pressure required to induce the *S* to perform the discrepant behavior, the greater the force to comply the *less* the resulting dissonance and the smaller the tendency to adjust one's private beliefs to support the act of compliance.

If an individual has no alternative but to behave in a fashion running counter to his beliefs, relatively little dissonance is created—it is as if he sees himself as the passive victim of fate. If he sees the possibility of behaving in a different fashion more consonant with his beliefs, and still performs in a manner at odds with his private feelings, more dissonance is created. Following this logic, there has been much explicit interest in the variable, "degree of choice." For example, Brehm and Cohen (1959b) found that children, asked to choose one of either two or four toys to keep, increased their liking of the chosen toy more when it was one of four (high choice) than when it was

one of two (low choice). Festinger and Carlsmith (1959) found that the greater the monetary incentive for *Ss* to argue the merits of a series of boring tasks, the less were the *Ss* own attitudes toward the tasks likely to become more favorable. The greater apparent choice in the low incentive condition seemed to produce greater dissonance regarding the persuasion attempt, and this dissonance was reduced when the *Ss* rated the tasks as more enjoyable than *Ss* in the high incentive (low choice) condition.

The present experiment is both an extension of the above considerations into the area of person perception and an investigation of an alternative mode of dissonance reduction which has largely been ignored in experimental predictions from dissonance theory: the possibility of withdrawing or canceling out one's discrepant behavior instead of showing accommodating changes in attitude.

A recent paper by Jones and Thibaut (1958) emphasized the importance of interaction context in constructing any sensitive and comprehensive theory of person perception. Specifically emphasized in this paper was the role played by the perceiver in defining the situation and eliciting information from the stimulus person. In situations where one individual (*A*) has, for whatever reason, behaved toward another (*B*) in a manner which is discrepant with his private feelings about *B*, we might well expect the production of dissonance and a consequent change in *A*'s attitude toward *B*. At least dissonance theory alerts us to this possibility and suggests the conditions under which such attitude change might occur. If Person *A* is pressured by strong incentives or imperative role demands to behave in an overly warm or overly hostile fashion toward *B*, we would expect little change in *A*'s private impression of *B*. If, however, *A* is less certain about what is expected and perceives alternative ways of responding to *B*, the same extreme behavior would likely produce corresponding changes in

<sup>1</sup> The present research was made possible by a grant from the National Science Foundation (NSF-G8857).

attitude toward B through the mechanism of dissonance reduction. Thus, the "degree of choice" variable seems quite applicable to situations of interpersonal action and perception.

There are, however, occasions similar to the interaction depicted above where A is operating under restraints or incentives which are only temporarily effective. Thus the role requirements are not immutable and A can behave in a different fashion at a later time. An example of this possibility is the case of the practical joker who insults and derogates only to assure his victim, later on, that his remarks were all in jest. Or perhaps more aptly mentioned is the man with a gruff and hostile manner on initial contact who later reveals glimmerings of his heart of gold (and intended to all along).

These examples suggest a variable of more general relevance to dissonance theory. Without exception, the research attempts to create dissonance by inducing the *S* to act in a way that is discrepant from his beliefs, have treated the *S*'s behavior as irrevocable. *S* reads the unpleasant information, he agrees to copy the random numbers, he propagandizes the "naive" subject, he eats the unpleasant vegetable, etc. In all these cases the *S* sees little prospect of taking back or in any public way canceling out the discrepant behavior. Whether or not *S* actually goes through on his commitment to behave in a certain way, he does not anticipate any simple way of neutralizing the behavioral act. It seems logical to suggest that dissonance reduction through attitude change is dependent on the absence of such anticipations. Thus we would expect little dissonance in forced compliance situations where the unpleasant, alien, discrepant behavior can be withdrawn or neutralized.

One form which this undoubtedly takes in many real life situations is neutralization through exaggeration, parody, or dramatic misplaying (see Goffman's discussion of "realigning actions," 1959, p. 190). The child who says "thank you" to his host in response to his mother's imperious prompting may neutralize his remarks (and preserve his autonomy) through sarcastic inflection. The Korean POW who said "I am sorry I called Comrade Wong a *no-good-son-of-a-bitch*" is

also effectively canceling out his compliance by emphasizing the wrong words (see Schein, 1958, p. 322).

A more direct form of cancellation, however, is the anticipation that there will be some later opportunity to take back the behavior, to say "I didn't mean it," or "My fingers were crossed," or "I was playing a joke." It is the opportunity for this latter form of neutralization which was varied in the present experiment.

To give a synopsis of the present experiment, *Ss* were cajoled (Choice) or assigned (No Choice) to read aloud a negative evaluation of a stimulus person (SP) who could hear but not see the *S*. Half of the *Ss* expected to meet the SP later with the experimenter (*E*), at which time *S*'s role and the deceptions involved would be explained to SP (Anticipation condition). The remaining *Ss* were led to believe that such a meeting was impossible and that the SP would not be disabused (Nonanticipation condition). In line with the reasoning presented above, the main experimental prediction was: Since dissonance is greatest in that condition where *S* has the illusion of choice and is not given the opportunity to neutralize his behavior, *S* is more negative in his ratings of SP in the Choice-Nonanticipation condition than in any of the remaining three. It was difficult to make specific predictions for the other conditions except for the expectation that the least dissonance and therefore the more positive ratings would occur in the No Choice-Anticipation condition.

#### METHOD

##### *Subjects*

Exclusive of *Ss* used in pretesting, 52 male introductory psychology student volunteers participated in the experiment.<sup>2</sup> The data of 12 *Ss* were excluded from the analyses reported below—6 of these were suspicious that the SP was not as presented, and 6 either balked at the task presented them, or later indicated that they were subjectively in a different condition from that implied by the induction. Suspicion and subjective misclassification were evenly distributed across the four

<sup>2</sup> Forty-five of these *Ss* were summer school students at the University of North Carolina; the remainder were Duke summer students. We are greatly indebted to the staff of the Organization Research Group of the University of North Carolina for making their research facilities available, and particularly to Joanne Landau who was of invaluable assistance in securing *Ss*.

treatments. Only in the Choice-Nonanticipation condition, however, did any *S* balk at reading the evaluation—3 out of 14 *S*s run in this condition refused the induction attempt.<sup>8</sup> The total number of *S*s providing analyzable data was thus 40, 10 appearing in each of the four experiment conditions.

### Procedure

The procedure was administered to *S*s one at a time but *S*s were instructed that they were taking part in an experiment in first impression formation and that their task was to come to a first impression judgment of "another subject in the next room." *S*s were led to believe that *E* had taken elaborate precautions to see to it that a "genuine first impression situation would be created," and that these precautions included the pairing up of *S*s who were not taking the same courses, who were not living in the same dormitories, and who had been instructed to arrive at the experimental laboratory at slightly different times to avoid overlap in the halls, etc. Upon arrival of the *S*, *E* conducted him to an observation room behind a one-way mirror which, however, was closed off by a curtain so that the *S* could not see into the adjacent room. *E* explained that he was interested in studying only the impression created by "what a person says and how he says it, and not in the contribution of personal appearance to the impression created by a person." Then *E* asked each *S* to fill out a self-rating scale composed of 10 pairs of conventional antonyms, including generous-stingy, honest-deceitful, and timid-bold. The *S* indicated his self-rating by placing a checkmark in one of five blocks arrayed from one member of the pair to its opposite.

*E* then left the naive *S* alone in one room on the pretext of going to explain the experiment to the SP in an adjacent room. As soon as he reached the second room, *E* turned on a tape recording which broadcast back to *S*'s room a discussion between *E* and the SP. On the tape, *E* explained the nature of the experiment in the same terms he had used with *S*. *E* asked the SP to fill out a self-rating scale and then requested him to respond orally to a series of standard questions about his background, his family, his current interests, etc. and to three moral dilemmas adapted from the Universalism-Particularism Scale (Stouffer, 1949). SP was instructed that his answers to these questions would serve as information for *S* to use in coming to his first impression judgment of the SP, and that after SP had finished responding to these questions *S* would write

down a brief personal evaluation of the SP and read this to him over the loudspeaker. As a rationale for this procedure, the SP was told that this would make the experiment "more interesting for you and allow you to hear an honest evaluation of yourself by someone who doesn't know you."

After these remarks, *E* turned off the tape, supposedly leaving the SP to organize his thoughts about the questions which he was to answer and returned to the naive *S*. While waiting for SP to begin, *E* gave *S* a carbon copy of the questions that SP was to answer and made a few informal remarks designed to clarify the procedure. After a short pause *E* returned to the SP and played the second portion of taped material consisting of SP's answers to the standard set of questions and his resolution of the representative moral dilemmas. Because the stimulus information was identical for all *S*s, and because the focus of this study was on the change scores rather than the *S*'s initial impression, no detailed description of the stimulus materials will be presented. The aim was to convey little about the SP except that he was an average, moderately likeable undergraduate. In his appearances on tape, SP seemed slightly nervous; he halted occasionally, groped for words, and seemed quite involved in creating a favorable yet honest impression of himself.

At the close of the SP's talk, *E* turned off the tape and asked the *S* to fill out a "first impression rating scale" (to be described below). Then followed the rationale for the derogation and the Choice and Anticipation manipulations:

As you will remember, I said at the beginning of the experiment that we are also interested in how people respond to evaluations of themselves. Particularly we are interested in studying the effect on a person of extreme evaluations of himself—evaluations that are either very flattering and complimentary or negative in content. . . . What I have done is to prepare in advance two quite general evaluations, one of which is heard by every subject who participates in the other half of this experiment. One of these is quite complimentary and contains statements such as, "You sound like one of the most interesting persons that I have met since I came to Chapel Hill (Duke)," and "I would really like to get to know you much better." The other is negative and contains statements such as, "My overall impression was not too favorable," and "I wouldn't go out of my way to get to know you."

The *S*s were then randomly assigned to one of four treatments involving variations in choice and anticipation of interaction. The various sets of instructions were as follows:

*Choice.* As far as I am concerned, you may read either of these evaluations; but I would like to ask a favor of you. Surprisingly enough, most of my recent subjects have been choosing to read the flattering evaluation of their person, so that I have not been getting much information about the effect of a negative evaluation on people. If you feel able, I'd like to ask you to read the negative evaluation of your partner. Do you think that you'll be able to do this for me?

*No Choice.* Because we are requiring all of our

<sup>8</sup> One *S* in the No Choice-Anticipation or low dissonance condition was, in a sense, self-selected. Originally scheduled for the Choice-Nonanticipation condition, he refused to read the negative evaluation until a meeting was guaranteed (Anticipation) and before being subjected to considerable further pressure (No Choice). Thus in terms of the final induction and his subjective placement on the post-experimental questionnaire, this *S* fell in the No Choice-Anticipation condition. The results are quite unchanged by the inclusion or exclusion of this fortieth *S*. For ease of computation and presentation, this *S* was retained.

Ss to read one or the other of these evaluations, we have decided that the only fair way to assign one of these evaluations to you is to make it simply a matter of chance. Thus we have decided in advance that all even numbered subjects would be required to read the complimentary evaluation of their partner and that all odd numbered subjects would be required to read the negative evaluation of their partner. Since you are the seventh subject who has taken part in this experiment, here is the evaluation that we want you to read.

*E* then handed the mimeographed copy of the negative evaluation to all Ss and began to talk about it only to interrupt himself in one of two ways:

*Anticipation of interaction.* Of course, you realize that as soon as we have had time to study the effect of your reading of this negative evaluation on him, I shall explain to him that this was not your true opinion of him, and you will have an opportunity to meet him and to say anything that you like about your true impression of him. Of course, you don't have to say anything if you don't want to, but you will meet him as soon as we have gathered our data on his reaction.

*Nonanticipation of interaction.* You realize, of course, that we would like to be able to tell this person that this does not represent your true opinion and that it was all part of our experimental setup, but we have found that we cannot do that and continue to do research on this topic. Therefore, we have made this kind of arrangement to protect your identity. As soon as you finish reading this evaluation to him over the microphone, I shall go into the next room and turn him over to an assistant of mine who will take him to a different part of the building where he will, by the use of interviewing and various psychological tests, get at the effect of this evaluation on him. This session will take at least thirty minutes which will give us plenty of time to finish up this part of the experiment and to see to it that you get out of the building without having to meet him and answer any embarrassing questions. Of course, he will never know your name just as you will never know his.

After *S* had had time to read the negative evaluation twice, *E* connected a microphone to an amplifier and appeared to talk briefly with the SP before turning the microphone over to the *S* for him to read it aloud to the SP. The complete negative evaluation follows below (the italicized portion was always dubbed in in pencil to make *S* feel that the evaluation varied to some extent from SP to SP):

As I understand it, my job is to tell you in all honesty what my first impression of you is. So here goes: I hope that what I say won't cause any hard feelings but I'll have to say right away that my overall impression was not too favorable. To put it simply, I wouldn't go out of my way to get to know you. Maybe I'd change my mind if we could talk together in a more natural surrounding, but from the way you spoke—not so much what you said but how you said it—I'd guess that you have some personal problems that would make it hard for us to get along very well. Your general interests and

so on just strike me as those of a pretty shallow person.

To be more specific: *Frankly, I just wouldn't know how much I could trust you as a friend after hearing your answers to those moral questions. You took the easy way out every time.* I guess that I should point out some of the things that you said that made a good impression on me, but that would be a kind of a waste of time since the general impression that I have is not too good. That's all that I have to say.

Before leaving the room to take charge of the SP, *E* handed *S* a completed self-rating form which presumably was the one which had been filled out by the SP. *S* was asked to reread the SP in an attempt to integrate this new information with the information already provided in the "interview." Thus, the second rating was deliberately divorced from the reading of the derogation and given a plausible justification since psychologists "often must combine information from different sources to formulate their conceptions of personality." The answers indicated on SP's self-rating scales were designed to make him appear as typical as possible. In the first place, the items themselves were chosen because it was felt that everyone would respond to them in more or less the same way. In the second place, SP's self-rating indicated that he had a positive self-picture without, however, being especially arrogant or conceited. Ss were specifically instructed that the amount of information that they could gain from such a self-rating was limited by the willingness of the other person to reveal things about himself and that they should not feel constrained to agree with the SP about himself.

*E* then left the room for approximately 4 minutes after which time he returned to administer a written questionnaire designed to check on the effectiveness of the experimental manipulations and an oral questionnaire designed to get at their reaction to the SP's self-rating, to recheck the written questions about experimental manipulations, and to ascertain whether or not any Ss were suspicious of the procedure. This oral questioning period was followed immediately by an explanation of the deception and purposes of the experiment. Most Ss were quite relieved to learn that no one had heard the negative evaluation and left the experimental room with no apparent signs of tension.

### *Rating Scale*

The main dependent variable was the amount of change in each *S*'s evaluation of the SP from before the derogation to after it. The rating scale was constructed specifically to reflect the Ss' impression of the SP, and the *before* and *after* forms of the scale were identical, being composed of five trait clusters—likability, warmth, conceit, intelligence, and adjustment—each of which consisted of four simple declarative sentences, two of which were worded positively and two negatively. For example, the conceit cluster was composed of these sentences: "He strikes me as somewhat arrogant and conceited" (negative), "I think that he is basically a modest, unpretentious person" (positive), "This person seems somewhat distant and

aloof" (negative), and "He seems very humble and self-effacing to me" (positive). The Ss' ratings were made on a six-point scale reflecting the degree of agreement with each of the 20 sentences. For purposes of the present study, the ratings were algebraically summed to provide an overall measure of favorability—that is, all positive items were summed and this total was added to the inversely scored sum of scores for all negative items.

Evidence indicates that both the scale itself and scale change scores are sufficiently reliable. A split-half correlation on the before scores in which one half was composed of the first positive and the first negative item in each trait cluster yielded a .91 value, corrected by the Spearman-Brown formula. A Kuder-Richardson reliability value of .90 was also obtained on the before scores. For the change scores the reliability was somewhat lower but still quite acceptable: .60 when measured by the split-half technique and corrected by the Spearman-Brown formula, and .71 when measured by the Kuder-Richardson technique.

## RESULTS

### *Validation of Experimental Inductions*

As indicated above, only those Ss who saw themselves in the condition assigned to them (as reflected in their responses to the post-experimental questionnaire) were retained for analysis. Without exception, all Ss in the Anticipation conditions indicated a definite expectation of meeting the SP immediately after the experiment. None of the Ss in the Nonanticipation condition did. Nineteen of the 20 Ss in the No Choice condition felt that "I had no alternative but to give the evaluation I gave." The remaining S in No Choice and three Ss in the Choice condition felt that they had some freedom but that there was "a great deal of pressure on me to choose the evaluation I gave." The remaining Choice Ss scattered their responses over three alternatives reflecting greater degrees of subjective choice or freedom to choose. Since there was little or no overlap between the questionnaire responses of the retained Ss in different conditions on questions relevant to condition differences, the experimental inductions may be considered valid almost by definition. Since only six Ss excluded themselves by their questionnaire responses, indicating that subjectively they were not in the induced condition, the experimental inductions may be considered basically valid even without regard to S selection. It should also be noted, again with reference to the post-experimental questionnaire, that there was no interaction be-

tween subjective choice and anticipation. For example, the Choice Ss in the Anticipation condition felt just as much choice as the Choice Ss in the Nonanticipation condition.

A final matter of importance concerns the extent to which the evaluative reading was actually seen to be discrepant—in a negative direction—from each S's initial attitude. Except for two Ss in the high dissonance condition, all Ss saw the evaluation as less favorable in tone than their own attitude. Most Ss thought the discrepancy was considerable.

### *Effects of Choice and Anticipation on Rating Changes*

The dependent variable of critical interest is the summary rating change score for each S. The means and standard deviations of these change scores are presented for each experimental condition in Table 1. A simple analysis of variance indicates that the difference between all four means is significant ( $p < .05$ ). The variances are quite homogeneous, though there is some tendency for the Ss in the Anticipation conditions to show greater variability than those in the Nonanticipation conditions.

As always, interpretation of significant differences in change scores depends on the relationship between change scores and before scores. In the present case, the differences between the four before-score means did not approach significance. Also, none of the four

TABLE 1  
MEAN BEFORE AND CHANGE SCORES AND STANDARD DEVIATIONS OF SUMMARY RATING EVALUATIONS

	Condition			
	Choice		No Choice	
	Antic	Nonantic	Antic	Nonantic
Before <sup>a</sup>				
<i>M</i>	51.0	55.5	48.0	54.7
<i>SD</i>	8.92	17.31	11.89	15.25
Change <sup>b</sup>				
<i>M</i>	-1.8	-7.7 <sup>c</sup>	-2.2	-1.7
<i>SD</i>	6.63	4.79	5.39	3.43

Note.—The lower the before score the more favorable the rating. A minus change score indicates change toward a less favorable impression.  $N = 10$  for each cell; total  $N = 40$ .

<sup>a</sup>  $F$  betw/with = .641.

<sup>b</sup>  $F$  betw/with = 3.41/3 and 36 *df*,  $p < .05$ .

<sup>c</sup> Individual mean comparisons with C-Na (Choice Nonanticipation)—NC-Na:  $t = 3.222$ , 19 *df*,  $p < .01$ ; C-A:  $t = 2.278$ , 19 *df*,  $p < .05$ ; NC-A:  $t = 2.413$ , 19 *df*,  $p < .05$ .

correlations between before scores and change scores differed significantly from zero; two were in the positive, two were in the negative direction. As a final check on the possibility that the change scores were influenced by the before scores in some systematic way differing across treatments, an analysis of covariance was done which indicated that the difference between means was still significant after partialing out any effects of before score.

*The role of choice.* The main hypothesis of the experiment was that the illusion of choosing to read the negative evaluation plus the awareness that there would be no disabusing interaction with the SP would combine to produce the greatest amount of dissonance. The most direct consequence of this heightened dissonance would be a high negative change on the summary evaluation score, relative to the other three experimental groups. It is clear by inspection of Table 1 that this main hypothesis is confirmed. The Choice-Nonanticipation group mean is significantly different from each of the other group means at the 5% level or lower. The remaining three groups are obviously very similar in mean and the differences between them do not approach significance.

It is somewhat surprising to note that the No Choice-Anticipation condition, expected to produce the least dissonance, results in as much negative change as do the two moderate dissonance conditions (Choice-Anticipation and No Choice-Nonanticipation). Apparently, whether or not one has any freedom to read the negative evaluation is not related to the production of dissonance as long as *S* feels he can retract his behavior after the experiment. When this avenue of dissonance reduction (or prevention) is closed, however, the present experiment clearly confirms the role of choice or commitment in the production of dissonance.

*The role of anticipation.* In view of the pattern of rating change results, one could make the same sort of remarks about the role of anticipation as about the role of choice: knowledge that there will be no interaction is essential in the production of dissonance only when *S* has the illusion of some choice in reading the evaluation. However, as we might infer by the tendency toward greater variability in the anticipation groups, the anticipa-

tion variable is probably more complex than the choice variable—or at least the lines between conceptual status and operational definition are more tenuous with regard to anticipation than choice. Choosing to behave in a certain manner is a rather direct index of committing oneself to the behavior, of “owning up to it,” or acknowledging it is at least partially self-caused.

In the present experiment, the anticipation of meeting or not meeting the SP was manipulated to allow half of the *Ss* to reduce or prevent dissonance by anticipating the withdrawal of their behavior rather than changing their attitude. But anticipation had other meanings to these *Ss* as well. A few *Ss* openly expressed anxiety at the prospect of meeting the SP. As one *S* not too lightly said: “I hope he’s not a big guy.” There were probably others who shared some of these feelings but did not express them openly. Nevertheless, there is evidence from the post-experimental questionnaire that such anxiety reactions were definitely in the minority. When asked, “How appealing is (or would be) the prospect of meeting the other subject to explain your part in this?” 10 (or half) of the Anticipation *Ss* checked the alternative, “very much like to meet him and explain.” Six more *Ss* checked the next alternative, “rather like to meet him and explain.” Only three *Ss* checked the third or neutral alternative, with one saying “rather not meet him . . .” In contrast to this, *Ss* in the Nonanticipation condition tended to feel much more neutral about meeting the SP: 11 out of 20 checking the neutral alternative. The *Ss* in the Anticipation conditions are, in fact, significantly *more* eager to meet the SP than the *Ss* in the Nonanticipation conditions ( $\chi^2 = 4.401, 1 df$ , corrected for continuity,  $p < .05$ ). This suggests, perhaps, a “sour grapes” reaction in the nonanticipation *Ss*—since they cannot meet the SP anyway, the dissonance produced by this is partly reduced by expressing a lack of interest in such a meeting. In any event, the relative eagerness of the anticipation *Ss* to meet the SP indicates that anticipation of interaction plays a greater part in dissonance reduction than in anxiety arousal, and that the latter reaction is atypical.

### *Performance Variations and Attributions of Suspicion*

It was impossible to control the facility and sincerity with which the *Ss* read the derogatory evaluation, except by strong instructions urging simulated sincerity and the provision of a brief practice reading period. It is conceivable that some *Ss* deliberately tried to sound insincere or to give cues to the SP that their performance was other than genuine. This possibility was mentioned in the introduction as an alternative means of discounting behavior which is discrepant from other established cognitions. For this reason, *E* attempted to rate each performer on the sincerity of his performance. While it turned out to be impossible to make reliable ratings of such an intangible quality, *E* was aware of only one *S* who seemed to be deliberately conveying cues by exaggerating his part over the microphone. Probably because of the constraints inherent in the situation, then, attempts at caricature in the reading performance did not serve as a major means of dissonance reduction in the present experiment.

Nevertheless, *Ss* did vary in response to one question which asked whether they thought SP was likely to be suspicious of the sincerity or source of the evaluation which was read to them. Fifteen of the *Ss* felt that the SP was likely to be suspicious, and these distributed themselves quite evenly across the different conditions. Since the attribution of suspicion is a possible way of reducing dissonance, it is important to note the relationship between such attribution and rating change scores. Here a rather curious and unexpected finding emerges. In the Nonanticipation conditions, there is no relationship between attribution of suspicion and change score. In the Anticipation conditions, those who attribute suspicion to the SP show significantly greater negative rating change than those who do not ( $t = 3.41$ ,  $p < .01$ ). In none of the comparisons does the choice variable show any relationship to the attribution of suspicion.

The difference within the Anticipation conditions seems paradoxical and quite difficult to explain. One would assume that attributing suspicion to SP would be one way of neutralizing the situation and avoiding dis-

sonance; yet those who attribute suspicion are precisely the ones who show the greatest dissonance reduction by changes in rating. There are a number of equally plausible explanations for this finding which are neither refuted nor supported by available data. Any commitment to a particular explanation would therefore be quite arbitrary. In short, the findings with regard to attribution of suspicion remain essentially a mystery.

### *The Role of Self-Rating Discrepancy*

In order to support the rationale of the experiment, it was essential to provide some further information about the SP during the interval between the first and second rating of him. An attempt was made to construct a bogus self-rating performance for the SP which was purposely uninformative and yet could serve as a minimal justification for changes in rating. Some information was provided by this SP self-rating, however, and many *Ss* claimed that they used this information in re-evaluating him. Many of those who became more negative in their ratings felt that the SP rated himself in a conceited or egocentric way. Since the attribution of conceit would presumably bear some relation to one's own self-ratings on the same scale, the discrepancy between the *Ss*'s and the bogus SP's ratings was considered as a possibly confounding variable. If, for example, *Ss* in the Choice-Nonanticipation condition were for some reason more modest in their self-ratings than *Ss* in the other conditions, they would tend to think of the SP as relatively conceited and therefore dislike him. Such a chance occurrence would make it unnecessary to invoke dissonance theory in order to explain the results.

There were variations in average self-rating discrepancy from group to group, and it so happens that the largest discrepancy occurred in the critical Choice-Nonanticipation condition. None of these differences in self-rating discrepancy means departed significantly from chance, but as a final control over this factor covariance analyses were conducted to partial out the effects of self-rating discrepancy in comparing Choice-Nonanticipation with each other condition in turn.

Suffice it to say that there were no essential changes in results or significance levels except for the overall between groups effect, which drops just below the 5% level. Since this overall comparison includes some groups between which no differences were predicted, and the crucial *t* test comparisons (Choice-Nonanticipation versus the other groups) remain essentially unchanged, we may conclude that the present results cannot be explained by chance variation in the self-ratings of *Ss* assigned to different conditions.

#### DISCUSSION

The results of the present experiment indicate the conditions under which a person, whose behavior toward another departs from his initial attitude toward the other, changes his attitude to make it consonant with his behavior. The person or actor must (*a*) feel that he had some freedom *not* to behave in the discrepant manner, and (*b*) realize that he cannot easily disclaim the behavior in the eyes of the target person. According to the findings presented above, the combination of these two conditions is necessary and sufficient to produce enough dissonance to motivate attitude change. In the absence of either condition, the amount of attitude change is negligible and significantly less than when both are present. We assume in this general statement that it is merely the amount of discrepancy between behavior and initial attitude which is important and not the direction of discrepancy. Since the present experiment only involved behavior which was more negative than the initial attitude, the generality of the present results is contingent on further empirical investigation.

The first of the two necessary conditions (Choice) has received considerable attention in the research of others. The present experiment thus confirms and extends to a different attitudinal object (a person) the findings of Brehm and Cohen (1959a, 1959b) and of Festinger and Carlsmith (1959). The present experiment indicates, however, that the choice to behave in a certain manner must have fairly irrevocable consequences in order for dissonance and consequent attitude change to appear. When *Ss* are led to believe that they will soon meet the target of their negative

evaluation, and that they may then explain away their behavior, the choice variable has no effect on attitude change. In considering the consequence of "forced compliance," therefore, it is essential to note the available means of neutralizing the behavioral act involved in the expected dissonance. Can the person easily change the meaning of this act or modify its significance? Can he later disown or revoke the behavior? One effect of such possibilities, specifically the latter one, is brought to light by the present results. The commitment implicit in choosing to behave in a manner discrepant from attitude, must be a commitment to a durable, preferably public performance, and not a series of acts which can easily be neutralized or taken back.

The implications of the present results for theories of social interaction and perception are rather straightforward. Certainly some clues are provided for predicting the effects of interpersonal communication on interpersonal attitude. A hostile comment that is clearly demanded by role requirements (No Choice) should lead to less change in the communicator's attitude than a hostile comment that represents a response to more ambiguous circumstances (Choice). From this we might further infer that the well practiced performer, the man who feels every interpersonal act is "spelled out in the manual," and who knows the pattern of behavior required by each role he is forced to play—such a man would not likely be affected by his own utterances toward others. On the other hand, the improviser, or the person who is uncertain of situational and role requirements, is much more apt to be constantly in the throes of dissonance elevation and reduction. In the process, presumably, his impressions of the same other may actually be quite variable in the course of an extended conversation. The potential dilemma of this latter type of person is blunted by the fact that he may succeed in always behaving toward another in a manner consonant with his initial attitude. Given some (preferably ambiguous) pressure to depart from this consonance of communicative behavior, however, there should be clear fluctuations in attitude or personal impression.

## SUMMARY

This study was designed to demonstrate that dissonance produced by inconsistencies between one's evaluation of another and one's behavior toward him would be reduced, under certain conditions only, by changing one's evaluation to conform to the behavior. All Ss read a negative evaluation about a stimulus person over a microphone presumably broadcasting to him. Ss were instructed to act as though this was their true evaluation of the stimulus person. Half of the Ss (Choice conditions) were given some opportunity to read a positive evaluation but urged to read the negative one; the remaining Ss (No Choice conditions) were simply assigned to read the negative evaluation. Half of the Ss in each of these groups were in turn informed that they would have a chance to meet the stimulus person immediately after the experiment when all would be explained to him (Anticipation conditions); the remaining Ss were told that no meeting would be possible and that the stimulus person could not be informed of the deception (Non-anticipation conditions).

The major prediction derived from dissonance theory was that only those Ss in the Choice-Nonanticipation condition would have sufficient dissonance so that a negative change in the impressional evaluation of the stimulus person would occur. This prediction was confirmed, though it was surprising that the No Choice-Anticipation group showed no less attitude change than the "moderate dissonance" conditions: No Choice-Nonanticipation and Choice-Anticipation. Some incidental findings were presented and the results were

discussed in terms of dissonance theory and implications for interpersonal perception.

## REFERENCES

- ARONSON, E., & MILLS, J. The effect of severity of initiation on liking for a group. *J. abnorm. soc. Psychol.*, 1959, **59**, 177-182.
- BREHM, J. W. Postdecision changes in the desirability of alternatives. *J. abnorm. soc. Psychol.*, 1956, **52**, 384-389.
- BREHM, J. W. Increasing cognitive dissonance by a *fait accompli*. *J. abnorm. soc. Psychol.*, 1959, **58**, 379-382.
- BREHM, J. W., & COHEN, A. R. Choice and chance relative deprivation as determinants of cognitive dissonance. *J. abnorm. soc. Psychol.*, 1959, **58**, 383-387. (a)
- BREHM, J. W., & COHEN, A. R. Re-evaluation of choice alternatives as a function of their number and qualitative similarity. *J. abnorm. soc. Psychol.*, 1959, **58**, 373-378. (b)
- COHEN, A. R., TERRY, H. I., & JONES, C. B. Attitudinal effects of choice in exposure to counterpropaganda. *J. abnorm. soc. Psychol.*, 1959, **58**, 388-391.
- FESTINGER, L. *A theory of cognitive dissonance*. Evanston, Ill.: Row, Peterson, 1957.
- FESTINGER, L., & CARLSMITH, J. M. Cognitive consequences of forced compliance. *J. abnorm. soc. Psychol.*, 1959, **58**, 203-210.
- GOFFMAN, E. *The presentation of self in everyday life*. Garden City, N. Y.: Doubleday Anchor, 1959.
- JONES, E. E., & THIBAUT, J. W. Interaction goals as bases of inference in interpersonal perception. In R. Tagiuri & L. Petrullo (Eds.), *Person perception and interpersonal behavior*. Stanford: Stanford Univer. Press, 1958. Pp. 151-179.
- MILLS, J. Changes in moral attitudes following temptation. *J. Pers.*, 1958, **26**, 517-531.
- SCHEIN, E. H. The Chinese indoctrination program for prisoners of war: A study of attempted "brainwashing." In Eleanor Maccoby, T. Newcomb, & E. Hartley (Eds.), *Readings in social psychology*. New York: Holt, 1958. Pp. 311-344.
- STOFFER, S. A. An analysis of conflicting social norms. *Amer. sociol. Rev.*, 1949, **14**, 707-717.

(Received August 31, 1959)