EGO-INVOLVEMENT, DISCREPANCY, SOURCE CREDIBILITY, AND ATTITUDE CHANGE

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Social judgment theory and dissonance theory make different predictions about the effect on attitude change of discrepancies between a person's own position and a persuasive communication. Persuasive messages were given to 144 subjects in a three-factor design having three levels of discrepancy, two levels of source credibility, and two levels of ego-involvement. Dependent measures were attitude change, source credibility change, ego-involvement change, changes in latitudes of acceptance and rejection, and message evaluation. More attitude change occurred for low than for high ego-involvement. Attitude change was an increasing monotonic function of discrepancy for low ego-involvement, and a nonmonotonic function of discrepancy for high ego-involvement. After receipt of the persuasive message, low credible sources increased in authoritativeness and the importance of the low-ego-involvement issue increased. A number of findings, significant beyond the .01 or .001 levels, were opposed to dissonance theory predictions. Most of the data are consistent with social judgment theory.

Among the many variables influencing attitude change, three have come into particularly sharp focus during the past decade: the credibility of the source of a persuasive communication, the role of ego-involvement in attitude change, and the discrepancy between a persuasive message and the attitude of persons upon whom influence is being exerted. These three factors are significant for two important, competing theories of attitude change, social judgment theory and dissonance theory.

According to social judgment theory, susceptibility to attitude change depends upon the closeness of discrepant information to an attitudinal anchor. An attitudinal anchor is defined in terms of a latitude of acceptance, that is, all the acceptable positions on an attitude continuum. Similarly, a latitude of rejection consists of all the unacceptable positions. Discrepant positions near a person's most acceptable position will be judged as closer to the person's own view than they actually are (assimilation), while positions far from one's own attitude will be judged as farther removed from a person's own position than they actually are (contrast). Assimilation of information mediates attitude change, while contrast either does not mediate change or causes a boomerang effect. When ego-involvement is increased, the latitude of rejection is widened (Sherif, Sherif, & Nebergall, 1965, p. 57). Attitude change is a nonmonotonic function of discrepancy when ego-involvement is high and the range of discrepancies goes from low to moderate to high. Freedman (1964) noted that a nonmonotonic relation should occur even when ego-involvement is low, provided discrepancies are extreme enough.

Sherif et al. (1965) indicated how social judgment theory accounts for the effect of source credibility on attitude change: "The assimilation range is smaller when the topic allows for few alternative interpretations and the communicator or source is not prestigious or is identified with a group unfriendly to one's own reference group [p. 244]." Because of the effect of source credibility on the assimilation range, a given discrepant position will tend to mediate more attitude change if it is advocated by a credible source and less change if it is advocated by a source lacking credibility.

According to dissonance theorists, attitude change is a monotonic function of increasing discrepancy if attitude change is the only
available means of dissonance reduction. A discrepant communication and one's own position are two dissonant cognitions. Psychological tension produced by dissonant cognitions can be alleviated by attitude change. The greater the discrepancy, the greater the dissonance aroused; therefore, if attitude change is the only available method of reducing dissonance, it should increase as discrepancy increases. The degree to which dissonance determines attitude change depends upon the availability of alternative modes of dissonance reduction and the magnitude of dissonance. Zimbardo (1960) indicated that the magnitude of dissonance created, besides depending upon degree of discrepancy, will vary as a direct function of the "importance of, or involvement with, the cognitive elements of the situation" [p. 86] and also the credibility of the information source.

Aronson, Turner, and Carlsmith (1963) have considered change in source credibility as an alternative means of dissonance reduction. Assuming that dissonance increases as discrepancy increases, then both source derogation and attitude change will occur if the source is neither perfectly credible nor incredible and if source derogation and attitude change are the only available modes of dissonance reduction. Derogation and attitude change are reciprocal modes of dissonance reduction. Derogation and attitude change are reciprocal modes of dissonance reduction, particularly for extreme discrepancies where "opinion change and derogation of the communicator are clear alternatives [Aronson et al., 1963, p. 32]." For a given level of discrepancy, a highly credible source will produce more attitude change than a less credible source. With increasing discrepancies, derogation should become relatively greater for less credible than for highly credible sources, and the alternative mode of dissonance reduction, attitude change, should become relatively greater for highly credible than for less credible sources.

Although studies of Hovland and Weiss (1951) and Kelman and Hovland (1953) indicate a positive relationship between communicator credibility and attitude change, later work (Aronson et al., 1963; Bergin, 1962; Bochner & Insko, 1966; Koslin, Stoops, & Loh, 1967) suggests that the impact of source credibility on attitude change varies with discrepancy and with the availability of behavioral alternatives of attitude change. Aronson et al. (1963) found more attitude change for a highly credible than for a mildly credible source, and an increase followed by a decrease in attitude change for increasing discrepancies with a mildly credible source. These authors concluded that "the main body of the results" of their experiment support their dissonance analysis. The highly credible source was evaluated more favorably than the mildly credible source. This condition quite probably existed prior to the experiment, since sources were deliberately selected that were expected to differ in credibility. Hence, differential source evaluation alone provides evidence neither for nor against the dissonance position. The theory could have been supported if, for the mildly credible source, derogation increased as discrepancy increased, but this result failed to occur. Consequently, the dissonance analysis of Aronson et al. requires additional support before it can be accepted.

Sherif et al. (1965) pointed out that "there is no greater confusion in the recent literature than the contradictory conclusions reached about attitude change as it is affected by differences between the subject's stand on an issue and the position advocated in a communication [p. 186]." Some studies, reviewed by Hovland, Harvey, and Sherif (1957), reported changes in attitude away from the discrepant position being advocated. Several other studies (Aronson et al., 1963; Bochner & Insko, 1966; Eagley, 1967; Freedman, 1964; Insko, Murashima, & Saiyadam, 1966) illustrate circumstances where either more attitude change occurred for low than for high ego-involvement or more change was produced by moderate than by high discrepancy.

The "confusion" mentioned by Sherif et al. is probably due in part to the difficulty of comparing existing studies. Aside from Crawford's (1967) unpublished study, no one has undertaken the factorial experiment suggested by Hovland et al. (1957) for manipulating...
discrepancy, credibility, and ego-involvement at once. The studies already cited have generally employed pairs of the three factors of interest. No two of these studies used the same experimental setting, the same issue, or the same operation to establish treatment manipulations. With the exceptions of Zimbardo (1960) and Crawford (1967), latitudes of acceptance and rejection, which are crucial for testing social judgment theory, have not been obtained.

In the research reported herein, discrepancy, source credibility, and ego-involvement were manipulated together in a single experimental setting. Realistic attitudinal issues were used in an after-only design in which the subject's task was quite simple. The levels of the three factors were established both before and after the receipt of a persuasive message. This made it possible to employ as dependent variables changes in the independent variables. The positions of discrepancies relative to latitudes of acceptance and rejection were obtained. The subjects' perceptions of the intended discrepancies were measured, and data were obtained to check on the susceptibility of the procedure to demand characteristics. In short, an attempt was made to test the three factors together, using a design that would provide appropriate conditions for evaluating the predictions of dissonance and social judgment theories.

**METHOD**

**Subjects**

A $2 \times 2 \times 3$ independent groups design was used to manipulate 2 levels of ego-involvement, 2 levels of source credibility, and 3 levels of discrepancy. Twelve different subjects were used for each of the 12 cells of the design. In addition, 36 control subjects were employed for a high-ego-involvement issue and 47 for a low-ego-involvement issue. All subjects were undergraduates at the University of California, Riverside.

**Ego-Involvement Issues**

Fifteen different issues were investigated in a series of pilot studies. Increased tuition at the University of California was chosen as the high-ego-involvement issue. Tuition was being actively discussed by the regents of the university, the Governor of the state, the press, the faculty, and the students. A student march on the State Capitol had been held to protest suggestions for increased tuition. The amount of the new park acreage that should be developed in Allentown, Pennsylvania, was selected as the low-ego-involvement issue. Control subjects gave their opinion for either the tuition or the parks issue by indicating the most and least acceptable position on a 13-point scale. They also indicated other positions which were acceptable or unacceptable, making it possible to calculate latitudes of acceptance and rejection. The tuition scale ranged from $0 to $600 of increased tuition by $50 increments. The parks scale ranged from 0 to 240 acres of increased park acreage by 20-acre increments.

Control subjects also rated the importance of the issues by responding to an item asking, “How important do you consider this issue?” They made their response on a 13-point scale where 0 was “no importance whatsoever” and 12 was “very, very important.” Zimbardo (1960) spoke of “the importance of, or involvement with [p. 86]” cognitive elements, and Sherif et al. (1965) said “to the extent that a person is less ego-involved in the issue (it is less important) . . . [p. x].” Since both dissonance and social judgment theorists speak of ego-involvement and importance in the same breath, importance ratings were taken as a measure of ego-involvement. The mean importance ratings for tuition and parks, respectively, were 9.42 and 5.02. As this difference is highly significant ($t = 6.23$, $p < .001$), there appears to be a clear difference in ego-involvement between the two issues prior to receipt of a persuasive message.

**Source Credibility**

Highly credible or less credible sources were selected for each issue from several potentially high or low sources tested in pilot studies. For tuition, a “Yale Professor of Educational Economics” was chosen as the high source and a “Private First Class, United States Army” was chosen as the low source. For the parks issue high and low sources were, respectively, “The Department of Health, Education, and Welfare Committee on Parks and Recreation” and a “local Allentown hair stylist.” After giving their opinion and importance ratings, the two groups of control subjects indicated on a 13-point scale the authoritative nature of two highly credible and two less credible sources appropriate for the issue they were considering. The sources to be used with messages given to experimental subjects were among the four rated. The scale ranged from 0 (“very unauthoritative”) to 12 (“very authoritative”). For tuition, the mean rating was 8.31 for the professor and 1.31 for the army private. The difference between these means of 7.00 scale positions is highly significant ($t = 9.07$, $p < .001$). For parks the committee received a mean authoritative rating of 10.04, and the hair stylist received a mean of 2.64. This difference of 7.40 scale positions is also highly significant ($t = 13.63$, $p < .001$). The high and low sources for each issue clearly differed in authoritative nature prior to receipt of a persuasive message.

**Discrepancy Levels**

The control group for the parks issue had a mean of 46.17 acres of increased acreage as their most ac-
ceplable position. Discrepancies advocated in persuasive messages given to experimental groups were 60, 120, or 240 acres of increased acreage. The control group for the tuition issue had a mean of $54.17 additional tuition as their most acceptable position. Discrepancies advocated in persuasive messages were $150, $300, or $600 of increased tuition. When acreage or dollars advocated are translated into positions on the 13-point attitude scales, they fall at corresponding scale positions.

Table 1 indicates the position of discrepancies relative to latitudes of acceptance and rejection. For the large majority of subjects and for both issues, the moderate and high discrepancies were well beyond the most favored position. For both issues, the lowest discrepancy from the mean most acceptable position is near the upper end of the latitude of acceptance, and the highest discrepancy is clearly within the latitude of rejection. In terms of latitudes of acceptance and rejection, the discrepancies advocated for the experimental groups were somewhat greater for the tuition issue than for the parks issue.

Procedure

Subjects were told that the experimenter was interested in determining their opinions on a variety of issues. Instructions were the same for all subjects except that passages referring to an essay were deleted for control subjects.

Instructions. The experimental subjects were told they would receive an essay discussing one of several issues. The issues themselves were not named in the instructions. The essays were introduced as follows:

Different students have been exposed differentially to various kinds of information relevant to the issues with which we will be concerned. To help control for this variability we have deliberately collected a number of articles, essays, statements, etc., from a wide variety of sources and have summarized them as accurately as possible. Each of you will be presented with one of these summaries. Each summary contains arguments and statements relevant to one of the issues with which we are concerned. Although several different issues will be used in this study, each of you will receive information concerning only one issue. Though the views expressed in the essays may or may not be in accord with your own views, they will present information relevant to each issue. For a group of students as a whole, reading these various essays will help control for the possibility of previous different amounts of exposure to arguments concerning the issues in question. Please read the essay carefully as it is important that we control properly for this variability.

These instructions were designed to accomplish three things: (a) to make acceptable the appearance of the source in the heading of the persuasive message; (b) to make reasonable the fact that subjects were being asked to read essays before stating their attitudes; and (c) to minimize questions about the authenticity of the message due to its shortness, form, and style—by telling the subjects that the essay was a summary written by the experimenter.

Persuasive messages. After the instructions were read, a five-page booklet was given to each of the experimental subjects. The first page of the booklet contained a title mentioning the issue, followed by two short paragraphs. The first paragraph introduced the issue, providing all subjects receiving a given issue with the same basic information. In the case of tuition, it specified the fee currently being paid and pointed out that the Regents of the university were considering an increase of this fee. For parks, the
subjects were told that new park acreage for Allentown was currently being considered. Allentown has a population of 106,400, and a recent survey revealed that the average United States city had approximately 20 acres of parks per 50,000 residents. The second paragraph introduced the source of the essay to follow. For tuition the source was identified by the name J. P. Kenmore, and his title, either the professor or the army private. The message attributed to the professor was said to be a summary of one of his recent articles. The essay attributed to the private was described as a letter to the editor of the Riverside newspaper, reproduced with corrections in the private's grammar. The essay attributed to the Allentown hair stylist was similarly described, including the use of J. P. Kenmore, except that it was said to come from the local Allentown newspaper. The parks message attributed to the highly credible source, the government committee, was described as an accurate summary of the committee's report on Allentown parks, made at the request of the Allentown City Council.

The second and third pages of the booklet contained the persuasive message arguing for increased tuition or park acreage. For a given issue, all essays were identical except for the increased dollars of tuition or increased acres of parks advocated. For both issues the number indicating the increase advocated was given four times, including once in the first sentence and once in the last sentence of each essay.

Postmessage measures. The fourth and fifth pages of the booklet contained seven measurement items. The first item asked the subject to indicate the position advocated by the writer of the essay. Subjects did this on the same 13-point rating scale used to determine their attribute. This item was deliberately placed first to make sure that the subject had the position advocated in the essay clearly in mind before indicating his own attitude.

Responses to Items 2, 3, and 4 were made on the same scales used with the control subjects. The second item restated the issue and asked the subject to specify his most acceptable position, other acceptable positions, the most unacceptable position, and other unacceptable positions. Item 3 asked the subject how important he considered the issue. Item 4 asked the subject to rate the authoritativeness of the same four sources rated by the control group. The source of the essay read by the subject was identified as such by a parenthetical statement.

Item 5 was aimed at determining the subjects' evaluation of the persuasive messages. Using rating scales borrowed from Bochner and Insko (1966), subjects rated the message on the following dimensions: (a) "made no sense" to "made good sense," (b) "very unreasonable" to "very reasonable," (c) "very illogical" to "very logical," and (d) "very one-sided" to "cover all aspects." Each of these scales ranged from 0 on the negative end to 7 on the positive end.

Items 6 and 7 were inserted to obtain data relevant to the demand characteristics of the experiment. They were both essay-style questions. Item 6 asked "What do you think this study was about?" and Item 7 asked simply "Any other comments?"

The subjects were run in group sessions of 25 or more. As far as possible, both issues, all sources, and all discrepancy levels were used equally often in a given session.

The instructions and booklet received by the control subjects were the same as those used with the experimental subjects, except for removal of the essay and material referring to it.

RESULTS

Postmessage Experimental Conditions

The first item of the experimental booklet, asking for the position advocated by the essay writer, indicates whether the experimental subjects correctly perceived the discrepant position just prior to giving their own attitude. Of the 72 tuition subjects, 71 responded correctly, and of the 72 parks subjects, 69 were correct, indicating that the positions advocated were accurately perceived.

While the desired differences among treatments within the credibility and ego-involvement conditions clearly existed before reading the essay, it is possible that the essay experience either washed out or reversed these differences before the subject's own attitude was given. Using postmessage importance ratings as a manipulation check on ego-involvement, the high-ego-involvement issue was still rated more important than the low-ego-involvement issue ($F = 17.61, df = 1/132, p < .001$). Similarly, checking on the credibility manipulation, the high source was still rated more authoritative than the low source ($F = 129.05, df = 1/132, p < .001$). Furthermore, the difference between authoritativeness means was highly significant at both the high- ($F = 69.55, df = 1/132, p < .001$) and low- ($F = 59.87, df = 1/132, p < .001$) ego-involvement issues taken separately. Clearly, all three experimental conditions were induced as intended.

The final two items in the questionnaire asked subjects what they thought the experiment was about and for any other comments. Answers to these questions were content analyzed to determine if the experiment was contaminated by undesirable demand characteristics. Both questions were treated as one for the purpose of content analysis. All answers were separated from the rest of the question-
naire and categorized by two paid raters working independently. In order to make statistical tests of the proportion of answers indicating perceived intent to influence, each subject’s answer was categorized as either indicating perceived influence or not indicating perceived influence. Ninety-one percent agreement between raters’ categorizations was obtained. The instructions contained three deceptions: the sources, the reason for reading the messages, and a statement that the messages were summaries of other material. Not a single subject commented on these deceptions, which indicates that the instructions were taken at face value. Only two subjects mentioned or implied the possibility that varying levels of the experimental factors were used with other subjects. Answers of these two subjects were placed in the “influence” category.

Tests were made for each rater’s categorizations of the difference between the proportion of control and experimental subjects who perceived influence. There were no differences at the .10 level for either rater’s categorizations of either issue. Approximately 12% of the control subjects and 11% of the experimental subjects gave replies that could be placed into the influence category. Considering the fact that the experimental subjects had just finished reading the message and replying to questions about their own attitude, the essay, the sources, and the importance of the issue, the nonsignificant differences between the control and experimental subjects seem almost embarrassingly small for intelligent guessers. The comparison between control and experimental subjects indicates that perception of intent to influence is not a significant problem in this experiment.

**Attitude Change**

Attitude-change scores were obtained by subtracting from the most acceptable scale position of each subject the mean most acceptable scale position of the control group receiving the same issue. A positive change score indicates influence in the direction advocated by the message, and a negative change score indicates a boomerang effect. Attitude-change means are contained in the first column of data in Table 2. Use of change scores makes possible analysis of both issues in a factorial design. As indicated in Table 3, a three-factor analysis of attitude-change scores yields a highly significant main effect due to ego-involve ment, an interaction between ego-involve ment and discrepancy, and a borderline interaction between discrepancy and source credibility (p < .10). Attitude change for the low-involvement issue increases as discrepancy increases; but where involve ment is high, attitude change does not vary.

### Table 2

**Means of Dependent Variables Categorized by Independent Variables**

<table>
<thead>
<tr>
<th></th>
<th>Independent variables</th>
<th>Dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ego-involve ment</strong></td>
<td><strong>Credibility</strong></td>
<td><strong>Discrepancy</strong></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>$180$</td>
<td>$0.58$</td>
</tr>
<tr>
<td></td>
<td>$300$</td>
<td>$0.43$</td>
</tr>
<tr>
<td></td>
<td>$600$</td>
<td>$0.42$</td>
</tr>
<tr>
<td></td>
<td>$150$</td>
<td>$1.50$</td>
</tr>
<tr>
<td>Low</td>
<td>$800$</td>
<td>$1.00$</td>
</tr>
<tr>
<td></td>
<td>$600$</td>
<td>$0.25$</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>$60$</td>
<td>$1.86$</td>
</tr>
<tr>
<td></td>
<td>$120$</td>
<td>$3.36$</td>
</tr>
<tr>
<td></td>
<td>$240$</td>
<td>$5.19$</td>
</tr>
<tr>
<td>Low</td>
<td>$60$</td>
<td>$1.60$</td>
</tr>
<tr>
<td></td>
<td>$120$</td>
<td>$2.10$</td>
</tr>
<tr>
<td></td>
<td>$240$</td>
<td>$3.02$</td>
</tr>
</tbody>
</table>

All three-factor analyses reported throughout this paper are independent groups analyses with two levels of ego-involvement, three levels of discrepancy, and two levels of credibility.
with discrepancy. These results are borne out by two two-factor analyses, one for low ego-involvement and one for high \(^5\) (Table 4).

The low-ego-involvement analysis yields increasing persuasion with increasing discrepancy, and a source credibility effect which is closer to the .05 than to the .10 level, with more influence from the highly credible source. The high-involvement analysis produced no \(F\)s greater than 1. Although high ego-involvement produced no differential persuasion associated with discrepancy, the high-ego-involvement condition did yield a persuasion effect when compared with the control group. As indicated in Table 2, all the high-ego-involvement means for attitude change are positive. The average change for all tuition subjects is .68, which is significantly greater than zero \(^6\) \((t = 2.19, p < .05)\).

As all three tuition discrepancies may be considered beyond the latitude of acceptance (Table 1), consideration was given to tuition data collected in a previous experiment using discrepant positions of $100, $250, and $600. It is quite possible that a curvilinear relation will not be detected when only three discrepancy levels are used. Combining the tuition data of the present and previous experiments, attitude-change means for increasing levels of discrepancy are --.24, 1.04, 1.46, .67, and .20.

\(^5\) As subtracting a constant (the control mean) from every score does not change within or between variances, identical results are obtained using the attitude score without first subtracting the mean.

\(^6\) A difference from zero using change scores is a test of the difference between an experimental group and its corresponding control group.

A two-factor analysis of variance indicates a significant difference among these means (\(F = 4.83, df = 4/100, p < .01\)). There was no difference between source credibility conditions (\(F = .32\)) and no Discrepancy \(\times\) Credibility interaction (\(F = 1.43\)). A trend analysis (Gaito, 1965) indicates a nonsignificant linear trend (\(F = .18, df = 1/100, p > .10\)) and a significant quadratic trend (\(F = 5.91, df = 1/100, p < .025\)). The means for the three middle discrepancies each differ from zero at beyond the .01 level, but the means for the smallest and greatest discrepancies are not.

### Table 3

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Attitude change</th>
<th>Source credibility change</th>
<th>Message evaluation</th>
<th>Ego-involvement change</th>
<th>Latitude of acceptance change</th>
<th>Latitude of rejection change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility (A)</td>
<td>1</td>
<td>.67</td>
<td>31.36***</td>
<td>8.56**</td>
<td>3.45</td>
<td>3.20</td>
<td>.27</td>
</tr>
<tr>
<td>Discrepancy (B)</td>
<td>2</td>
<td>1.12</td>
<td>5.86*</td>
<td>13.98***</td>
<td>.25</td>
<td>.38</td>
<td>.03</td>
</tr>
<tr>
<td>Ego-involvement (C)</td>
<td>1</td>
<td>22.47***</td>
<td>.23</td>
<td>21.28***</td>
<td>22.53***</td>
<td>3.90*</td>
<td>.44</td>
</tr>
<tr>
<td>A (\times) B</td>
<td>2</td>
<td>.90</td>
<td>1.55</td>
<td>.18</td>
<td>.51</td>
<td>.63</td>
<td>.14</td>
</tr>
<tr>
<td>A (\times) C</td>
<td>1</td>
<td>3.40</td>
<td>.83</td>
<td>.01</td>
<td>.93</td>
<td>.10</td>
<td>1.86</td>
</tr>
<tr>
<td>B (\times) C</td>
<td>2</td>
<td>3.77*</td>
<td>.32</td>
<td>.97</td>
<td>.58</td>
<td>.34</td>
<td>1.46</td>
</tr>
<tr>
<td>A (\times) B (\times) C</td>
<td>2</td>
<td>2.54</td>
<td>3.34*</td>
<td>5.21*</td>
<td>.43</td>
<td>.34</td>
<td>.21</td>
</tr>
<tr>
<td>Within*</td>
<td>132</td>
<td>7.59</td>
<td>6.47</td>
<td>26.57</td>
<td>8.35</td>
<td>6.81</td>
<td>7.56</td>
</tr>
</tbody>
</table>

* Mean squares instead of \(F\)s.

### Table 4

<table>
<thead>
<tr>
<th>Source</th>
<th>Source credibility change</th>
<th>Message evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility (A)</td>
<td>1</td>
<td>.53</td>
</tr>
<tr>
<td>Discrepancy (B)</td>
<td>2</td>
<td>.10</td>
</tr>
<tr>
<td>A (\times) B</td>
<td>2</td>
<td>.25</td>
</tr>
</tbody>
</table>

**| 3.54 | 21.21*** | 4.56* |

** Note.—This table contains two-factor analyses of all dependent measures for which ego-involvement was included in an interaction in a three-factor analysis.
Social judgment theory predicts more attitude change for low than for high ego-involvement. In contrast, dissonance theory predicts more attitude change for the more important of two issues. The data support social judgment theory in this general sense. As Tables 2 and 3 indicate, there is considerably more attitude change with low than with high ego-involvement.

Attitude change for low ego-involvement is consistent with dissonance theory, but not with social judgment theory. The low-ego-involvement curves of Figure 1 are close to those of Aronson et al. (1963), who used an issue that was probably not very involving. As dissonance theory predicts, greater attitude change occurs with greater discrepancy. The curves for low ego-involvement should decline according to social judgment theory since the highest discrepancy is in the latitude of rejection (Table 1). It is possible that attributing the message to a highly credible source so widened the latitude of acceptance and so narrowed the latitude of rejection that the high-discrepancy message was no longer in the latitude of rejection. While so much change in latitude seems unlikely, it would enable social judgment theory to explain the attitude-change results for high credibility. However, it still leaves unexplained the monotonic curve for low credibility. Low credibility should narrow the latitude of acceptance and, if anything, widen the latitude of rejection. Hence, the change for the highest discrepancy should be smallest instead of greatest.

Turning to high ego-involvement, it is social judgment instead of dissonance theory which gives a better account of the attitude-change data. The significant quadratic trend for the five tuition discrepancies is consistent with social judgment theory. However, contrary to social judgment theory, the one discrepancy falling within the latitude of acceptance (the lowest discrepancy) fails to produce attitude change. Since none of the tuition curves increase as discrepancy increases, the high-involvement data do not support dissonance theory.

The findings for credibility as an independent variable affecting attitude change do not fully support either social judgment or dissonance theory. Both theories predict more attitude change with higher source credibility. This may occur for low involvement, but it does not occur for high involvement. The nonsignificant difference in attitude change between the high and low sources for the high-involvement message is in the opposite direction and yields an $F$ less than 1.

Although the attitude change data when taken alone largely fail to support dissonance theory, they may be more consistent with the theory when alternative modes of dissonance reduction are considered. The ensuing analyses will examine in turn each of the other modes of dissonance reduction available in this experiment. The possibility of dissonance reduction due to some combination of alternative modes is considered in the Discussion section.

### Source Credibility Change

Source derogation is one available alternative mode of dissonance reduction. Source credibility change is a dependent variable reflecting changes of an independent variable. This change is the difference for each experimental subject between his postmessage source credibility rating and the mean rating of the appropriate control group. Derogation of the source is indicated by a negative change score. Means for source credibility change are presented in Table 2. As indicated in Table 3, a three-factor analysis of credibility change yields main effects associated with the independent variables of source credibility and discrepancy. The less credible source increases in credibility and the highly credible source decreases slightly after the message is read. The low-credibility mean change of 2.09 is very significantly different from zero ($t = 6.97, p < .001$). The high-credibility mean change of $-.28$ is not significantly different from zero ($t = .93, p > .10$). As indicated in Table 4, the significant increase in the credibility of the low source occurs for both ego-involvement conditions.

When changes in source credibility are considered together with the attitude-change results, the data are not consistent with the dissonance predictions of Aronson et al. (1963). Given the attitude-change data for
low ego-involvement, which are similar to the results obtained by Aronson et al., dissonance predictions imply less overall derogation for the highly credible than for the less credible source and increasing derogation with increasing discrepancy. The high and low sources do differ in credibility change beyond the .001 level, but the direction of the difference is the opposite of prediction. The difference is due not to derogation but to increased positive evaluation of the low source. The $F$ for discrepancy of .98 and the means of Table 2 give no indication of increasing derogation with increasing discrepancy. This lack of differential derogation replicates the data of Aronson et al. and fails to support the dissonance prediction.

The data for high involvement are just as discouraging for dissonance theory. There was no differential attitude change associated either with discrepancy or credibility (Table 4). Consequently, since dissonance should be greater for the highly credible than for the less credible source, there should be more derogation associated with the highly credible source. The high source exhibits a quite small nonsignificant fluctuation from no change ($t = .45$), whereas the low source becomes significantly more authoritative ($t = 4.29, p < .001$). Hence, the significant change in source credibility for high ego-involvement (Table 4), like that for low ego-involvement, is clearly due to improved evaluation of the low source and not to derogation.

According to dissonance theory, derogation should increase as discrepancy increases if there is no attitude change associated with discrepancy. Table 4 indicates that discrepancy effects occur mainly when ego-involvement is high. The means for increasing levels of discrepancy for high involvement are 1.78, −.05, and .69. Obviously, these means do not regularly increase in derogation. Only the mean for low discrepancy is significantly different from zero ($t = 4.90, p < .001$), and once again the change is an increase in source credibility rather than derogation. For the highest discrepancy level, where derogation should be greatest, there is a nonsignificant increase in credibility ($t = 1.33, p > .10$). Thus, the occurrence of a significant discrepancy effect fails to support dissonance theory.

Since there was more attitude change for low than for high ego-involvement, dissonance predictions would imply more source derogation for high than for low ego-involvement. This difference does not occur, as indicated by the $F$ of only .23 for ego-involvement in Table 3. Furthermore, the mean change of .80 in source credibility for high ego-involvement is a significant increase in credibility ($t = 2.67, p < .01$), as is the mean change of 1.01 for low ego-involvement ($t = 3.37, p < .01$).

It is not possible from the data of this research to relate social judgment theory to source credibility change. In social judgment theory source credibility is considered as an attitude toward the source (Sherif et al., 1965, p. 148). An appropriate test of the theory requires knowledge of discrepancies concerning the source in relation to latitudes concerning the source. These data are not available.

**Message Evaluation**

Four postmessage questions were asked which were aimed at evaluating the persuasive message itself. It will be recalled that within issues the messages were identical for all subjects except for the source and the number of increased dollars of tuition or increased acres of parks advocated. An individual message evaluation score is the sum of the scale positions circled on the four scales. Each of the four scales ranged from 0 to 7; hence, the least favorable evaluation is 0, and the most favorable evaluation is 28. A three-factor analysis was done for evaluation scores. As indicated by the means in Table 2 and the $F$s in Table 3, the parks message is evaluated more favorably than the tuition message, evaluation becomes less favorable as discrepancy increases, and evaluation is less favorable for messages attributed to less than to highly credible sources. It will be noted from Table 4 that significant discrepancy and source credibility effects occur for both high and low ego-involvement.

The reasoning of Aronson et al. (1963) may be applied to message derogation as an alternative means of dissonance reduction. Messages resulting in greater attitude change should be evaluated more favorably. Since attitude changed more for low than for high ego-involvement, message evaluation should
be more favorable for low ego-involvement; and since attitude towards increased park acreage changed more for high than for low source credibility, message evaluation should be more favorable for high credibility. The data are neatly consistent with these dissonance theory expectations. The discrepancy data for high involvement are also consistent with dissonance theory. There was no differential attitude change for high involvement. Thus, dissonance reduced by attitude change should be about the same for all levels of discrepancy. Since the amount of dissonance increases as discrepancy increases, there remains more dissonance to reduce for higher levels of discrepancy. Hence, message evaluation, as an alternative mode of dissonance reduction, should and does become less favorable as discrepancy increases.

By similar reasoning, message evaluation for high involvement should be more favorable for low than for high credibility. There was no difference in attitude change due to credibility for high involvement. A given discrepant message should produce more dissonance for a highly credible than for a less credible source. Since attitude change was about the same for both sources, there should be more dissonance remaining for the high source. Therefore, the message should be evaluated less favorably for the high source, but the opposite occurs. Furthermore, since attitude change for low ego-involvement increases as a function of discrepancy, message evaluation should become more favorable. Instead, message evaluation becomes less favorable at a high level of statistical significance.

Social judgment theory is well supported by the message evaluation data. According to social judgment theory, a discrepant message will undergo contrast with an attitudinal anchor. For a given anchor, the more discrepant the message the greater the contrast. With greater contrast, message evaluation should be less favorable because the communication will be seen as clearly different from a person’s own view. The message evaluation means in Table 2, as well as the analyses in Tables 3 and 4, confirm this expectation. Since high source credibility increases the assimilation range, more contrast and less favorable message evaluation should occur for low than for high credibility. Again, the means of Table 2 and the analyses in Tables 3 and 4 are consistent with expectation. Finally, more contrast should occur with high than with low ego-involvement. As the means of Table 2 and the analysis in Table 3 indicate, this expectation is confirmed.

Ego-Involvement Change

Ego-involvement change, like source credibility change, is a dependent variable representing changes of an independent variable. These changes were obtained by subtracting the appropriate control group mean from individual importance scores. A positive score is an increase in ego-involvement and a negative score is a decrease. A three-factor analysis yielded a highly significant difference between issues (Table 3). The low ego-involvement change mean of 1.96 is significantly greater than zero ($t = 5.76, p < .001$), whereas the mean change of $-0.33$ for the high-involving issue is not ($t = .97, p > .10$). Thus, the importance of the parks issue clearly increased after reading the message. In contrast, there was little or no change in the importance of the tuition issue.

It is reasonably clear how dissonance and social judgment theory expect ego-involvement to function as an independent variable. Less attention has been given to ego-involvement as a dependent variable. Changes in importance may be expected from dissonance theory, but it is not clear how changes in importance would follow from social judgment theory.

Festinger (1957) stated that “if two elements are dissonant with one another, the magnitude of the dissonance will be a function of the importance of the elements |p. 16|.” It clearly follows from dissonance theory that dissonance may be reduced by a downward adjustment of the importance of the cognitive elements in a dissonant situation. As a possible mode of dissonance reduction, changes in importance must always be decreases in importance. Increasing importance would increase dissonance. For any discrepant message, the more dissonance is reduced by attitude change, the less the potential reduction in importance as an alternative mode of dissonance reduction.
If attitude change and change in importance are alternative modes of dissonance reduction, then the small attitude change occurring for high ego-involvement should be accompanied by a relatively large reduction in importance, and the larger attitude change occurring with low involvement should be accompanied by a smaller decrement in importance. The data are inconsistent with this expectation in two ways. First, there is more instead of less change under conditions of low ego-involvement, and second, this change is a very significant increase in importance. Since attitude change for low ego-involvement increased as discrepancy increased, differential reduction in importance might be expected with increasing discrepancies. But again, importance is increased instead of reduced, and increases for all three discrepancies are significant beyond the .01 level. The highly credible source produced more attitude change than the less credible source for the parks issue, so it would be expected that there would be less reduction in importance for the highly credible than for the less credible source. Importance is not reduced for either source. On the contrary, both sources increase significantly in importance (p < .001 for both sources), and these increases do not differ significantly from each other.

Since five of the six mean changes in importance of the high-involving issue are reductions in importance ratings (Table 2), it is possible that these data are consistent with dissonance theory. For high involvement, there was no attitude change associated with discrepancy. Therefore, if reduction in importance is an alternative mode of dissonance reduction, there should be increasing reduction of importance as discrepancy increases. The data do not support this expectation. The nonsignificant trend that occurs is in the opposite direction. For high ego-involvement, there was no difference in attitude change due to source credibility. Consequently, more reduction in importance should occur for high than for low credibility, since dissonance should be greater for high credibility. The nonsignificant difference that occurs is in the wrong direction.

**Latitude Change**

Three-factor analyses were carried out for changes of latitudes of acceptance and rejection. As with other measures, change scores were found by subtracting the control mean from the individual scores. A positive change score represents an increase in latitude and a negative score a decrease. The results of the analyses of variance are given in Table 3, and the mean changes are shown in Table 2. The only significant change for the latitude of acceptance is associated with ego-involvement. The mean increase in the latitude of acceptance for the parks issue of 1.22 is significantly different from zero (t = 3.97, p < .001), whereas the change associated with tuition is not (t = 1.16, p > .10).

The factorial analysis of change in latitude of rejection yields no significant effects due to the independent variables. However, the means of all 12 cells in Table 2 are negative, indicating a consistent narrowing of the latitude of rejection across all conditions after the message is read. The mean change of −.74 for high involvement is significantly different from zero (t = 2.24, p < .05), and so is the mean change of −1.05 for low involvement (t = 3.18, p < .01).

Presumably, results for changes of latitudes should parallel attitude change as indicated by the most acceptable position. Attitude changes positively for both parks and tuition, and more positively for parks. Hence, the latitude of acceptance should increase in size for both parks and tuition, and it should increase more for parks. The data are reasonably consistent with this expectation. The latitude of rejection should decrease for both parks and tuition. This occurs at statistically significant levels. The latitude of rejection should decrease more for parks than for tuition. The data are in the right direction, but the difference between changes in rejection for parks and tuition is nonsignificant. Although there were no significant differences due to credibility or discrepancy, the trends of the latitude data for these variables are generally consistent with social judgment expectations.
DISCUSSION

General Trends

Contributions by Aronson et al. (1963) and Zimbardo (1960) contain an important principle: To understand the effect upon attitudes of a persuasive communication, it is necessary to consider the motivation which the communication arouses and also outlets for that motivation besides or in addition to attitude change. The data amply support this general principle. Several effects besides attitude change occurred at quite respectable levels of significance. The importance of such changes need not depend upon the assumption that they are alternatives to attitude change, nor on the assumption that the motivating force is dissonance motivation. Even if obtained changes are not thought of as alternatives to attitude change or as modes of dissonance reduction, they give context and added meaning to any attitude change which may or may not occur after receipt of a persuasive communication.

Sherif et al. (1965) and Festinger (1957), as well as others, taken the general theoretical position that the ego-involvement or importance of an issue is a fundamental consideration in the understanding of attitudes. Leaving aside the specific effects that different theories attribute to ego-involvement, the impact of a persuasive message is significantly determined by issues differing in level of ego-involvement. In Table 3, the row for ego-involvement contains several highly significant effects. As the means in Table 2 indicate, all the significant changes associated with ego-involvement are due to greater impact of the persuasive message for the less than for the highly ego-involving issue. With the possible exception of message evaluation, for which change scores were not available, the status quo in every case is more nearly preserved when ego-involvement is high. This finding is reinforced by the effect of source credibility on attitude change. It is widely agreed that source credibility influences attitude change. The data to date have come from studies in which ego-involvement in the issues was probably not very high. The data of the present research are consistent with the usual finding for low ego-involvement only. With high ego-involvement, a difference in source credibility has little effect, and the quite nonsignificant effect that occurs actually favors the less credible source.

Consideration of source credibility brings up a third general finding. Some relation may reasonably be expected between evaluation of a persuasive message itself and evaluation of the source of that message. Indeed, Aronson et al. (1963) operationally combined both kinds of evaluation under the heading of source derogation. Message evaluation should be more favorable for a highly credible than for a less credible source. This clearly occurs. A less expected finding is the relation of changes in source credibility to message evaluation. After receipt of the message the highly credible source was still considered much more authoritative than the less credible source. Nevertheless, the less credible source becomes more credible after the message and the highly credible source decreases nonsignificantly in credibility. Increased credibility of the low source occurs for both low and high ego-involvement. The explanation that immediately suggests itself is that the subjects' conception of the low sources' authoritativeness is improved by associating the source with a message having some degree of reasonableness. Thus, improved credibility due to a reasonable message appears, even though the message is still rated as less reasonable when it comes from a source lacking in authoritativeness.

It should be noted that terms like source derogation (e.g., Aronson et al., 1963) or disparagement (e.g., Bochner & Inske, 1966) can be misleading. The less credible sources, though they were considered less authoritative than the highly credible sources, were not derogated after receipt of the message. On the contrary, the change scores indicate a highly significant improvement in credibility. It is suggested that source evaluation is a more accurate term than source derogation and that derogation should not be assumed in the absence of change scores.

A fourth general result concerns ego-involvement change after receipt of the persuasive message. The change that occurred was primarily due to the highly significant increase in low ego-involvement. The increase
is very consistent, occurring for all of the six low-ego-involvement means of Table 2. Why is it that experiencing the message does little to change the importance of the high-ego-involving issue, where the subjects stand relatively firm, but has a powerful effect upon the importance of the low-ego-involving issue? The subjects probably knew more about a high-ego-involving issue. They had probably worked through the pros and cons and had made a commitment. That seems likely for the tuition issue. On the other hand it is unlikely that California students had given much thought to parks for Allentown, Pennsylvania. It is suggested that when a person is required to think about a topic to which he has previously given little thought, and when he is required to take a position on that topic, his conception of the topic's importance will tend to increase. On the other hand, when he has given much thought and commitment to an important topic, it will not suddenly change in importance when a single discrepant message is received.

**Persuasiveness of Messages**

Since two issues were used to establish two levels of ego-involvement, it is necessary to consider the possibility that the messages constructed for the two issues differed in persuasiveness. A difference in persuasiveness might account for the large difference in attitude change associated with ego-involvement. It might be argued that there was not much attitude change due to tuition because the tuition message was not very persuasive. The arguments used in the tuition message were modeled after arguments actually being made in public discussions of the issue. An effort was made to write a message which would be persuasive. The message must have been somewhat persuasive, since significant attitude change in the direction of the message did occur. Even if a difference in the persuasiveness of the messages exists, we doubt that it is great enough to cause a difference in attitude change which produces an $F$ twice the size of the $F$ needed to reach the .001 level. However, there is no certain way to counter the argument that the difference in attitude change between issues is due to a difference in persuasiveness of the messages.

Although there is no certain way to eliminate the possibility of differential persuasiveness when considering effects due to ego-involvement, such arguments are not applicable to main effects due to source credibility or discrepancy. Furthermore, such arguments are completely irrelevant when one considers credibility by discrepancy analyses for each issue separately, as was done in Table 4. Using two-way analyses for each issue separately, all subjects received precisely the same arguments, word for word, with only the source and the discrepancy differing.

**Assessment of Social Judgment Theory**

The data of this experiment are based on three independent variables and six dependent variables. To aid in understanding so much data, Table 5 presents a summary of the main findings. The dependent variables are listed together with the independent variables. Significance levels from the Results section are shown. The “yes” or “no” decisions about theoretical confirmation are based upon the results as they relate to predictions. A finding was called confirming if, according to theory, it should be and was significant. A result was called disconfirming if a significant difference occurred which was opposed to a theoretical prediction or if a significant difference was expected, but the results were both nonsignificant and in the opposing direction. Table 5 is simplified by omitting results for latitudes. For the most part, the data are consistent with social judgment theory. Eight of the 10 relevant analyses of Table 5 yield statistically significant differences in the predicted direction. Of the 2 analyses failing to support social judgment theory, the one due to parks discrepancies is the most serious. Attitude change steadily increases as a function of discrepancy, even though the high discrepancy seems clearly to fall in the latitude of rejection.

According to social judgment theory, a person's attitude is reflected not only by his one most acceptable position but also by the several acceptable positions which comprise the latitude of acceptance. It is necessary to consider the possibility that attitude change expected from social judgment theory, while not entirely satisfactory for the most accept-
TABLE 5

SUMMARY OF RESULTS: CORRESPONDENCE BETWEEN DATA AND THEORETICAL EXPECTATIONS

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variables</th>
<th>( p &lt; * )</th>
<th>Discrepancy theory</th>
<th>Social judgment theory</th>
</tr>
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<tr>
<td>Attitude change</td>
<td>Low vs. high ego-involvement</td>
<td>.001</td>
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<td>Source credibility</td>
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<td>yes</td>
</tr>
<tr>
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<td>no</td>
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<tr>
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</tr>
<tr>
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<td>for low ego-involvement</td>
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<td>yes</td>
</tr>
<tr>
<td></td>
<td>for high ego-involvement</td>
<td>ns</td>
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<td>b</td>
</tr>
<tr>
<td>Source credibility change</td>
<td>Low vs. high ego-involvement</td>
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<td>b</td>
</tr>
<tr>
<td></td>
<td>Source credibility</td>
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<td>no</td>
<td>b</td>
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<tr>
<td></td>
<td>for low ego-involvement</td>
<td>.01</td>
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<td></td>
<td>Discrepancy</td>
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<td>no</td>
<td>b</td>
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<td></td>
<td>for low ego-involvement</td>
<td>.05</td>
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<td></td>
<td>for high ego-involvement</td>
<td>ns</td>
<td>no</td>
<td>b</td>
</tr>
<tr>
<td>Message evaluation</td>
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<td>yes</td>
</tr>
<tr>
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<td>Source credibility</td>
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<td>yes</td>
</tr>
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<td>Discrepancy</td>
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<td>for high ego-involvement</td>
<td>ns</td>
<td>no</td>
<td>b</td>
</tr>
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</table>

* \( p \) values are from the analyses of variance (Tables 3 and 4) or from further breakdown of the data already presented in the Results.

b Not clear what the theory would predict.

able position, will be fully predictable when the latitudes are examined. When latitudes are subjected to the same analyses as the dependent variables of Table 5, all but 1 of the 10 statistical tests for latitudes are nonsignificant. All but 1 are also in the predicted direction. These nonsignificant results suggest that social judgment theory in its present form does not account for attitude change with sufficient precision. Since the results are generally in the right direction, it is possible that social judgment theory is on the right track and that a refinement of the latitude concept might increase its ability to predict.

Aspects of latitude other than size or most acceptable position might reflect with more sensitivity various nuances of attitude change. For example, under some conditions, the most acceptable position might change, while latitude size remains constant; or the end of the latitude of acceptance nearest the discrepant position might change to encompass previously discrepant positions while the other end does not change; or the end nearest the discrepant position might remain constant while the other end changes. These and other possible variations in latitude might be associated with particular conditions of the attitude-change situation. Furthermore, in the spirit of social judgment theory, it might be useful to describe attitudes by some combination of variables from both the latitudes of acceptance and rejection. It may well be in many situations that the latitude of rejection better represents the person's attitude and is the stronger anchor. Some attitudes seem to re-
licet what the person is against instead of what he favors. For example, it has been said that student activists seem to know what they oppose without having a clear view of an alternative they favor. The latitudes of acceptance and rejection might both be anchors, and attitude change might vary as a function of their relative strengths. It is suggested that full exploitation of the potential of social judgment theory requires thorough investigations of many latitude variations under a variety of pertinent conditions.

Assessment of Dissonance Theory

The attitude-change data by themselves fail to support dissonance theory, but the meaning of these data depends upon the results from available alternative modes of dissonance reduction. As already mentioned, the general principle of a variety of reactions in addition to or besides attitude change was well supported. This principle is highlighted by theoretical alternative reactions to dissonance motivation, and it is at once both a potential strength and a potential weakness of dissonance theory as applied to attitude change. It is a strength because it allows a single theoretical framework to speak on a variety of factors surrounding the attitude-change process. It is a potential weakness insofar as it leaves unspecified which of a number of possible alternatives will operate in a given situation.

Whatever weakness may be inherent in this theoretical position, it has been alleviated by Aronson et al. (1963), who have specified the implications of dissonance theory for the alternatives of attitude change and source derogation. The trends of the data of the present experiment are the opposite of predictions which, according to the analysis of Aronson et al., clearly follow from dissonance theory. The relevant findings are summarized in Table 5 where every dissonance prediction for source credibility change is accompanied by a "no," and where the significant differences for source credibility change are from data diametrically opposed to dissonance predictions.

Overall, the data provide something less than convincing support for dissonance theory. A single reliable finding opposed to a theory presents a problem. Of the 16 significant effects in Table 5, 11 are in opposition to theoretical expectations. Eight of these 11 are significant beyond the .01 or .001 levels. Furthermore, all of the available alternative means of reducing dissonance are accompanied by highly significant results in the wrong direction. Indeed, the data could be more readily explained if one assumed that people try to increase rather than decrease dissonance. Perhaps some esoteric mosaic of alternative reactions to dissonance can be found which would enable the theory to explain the results. Even with a good deal of straining and lack of parsimony, it is not clear what such a combination might be.

It is difficult to see how dissonance theory can account for so many contradictory results without fundamental changes in key concepts or interpretations of the theory. Abelson (1968) pointed out that "following Festinger (1957, p. 178), dissonance theorists have always considered social disagreement to be dissonance-arousing [p. 130]." Since opinion disagreement is such a common experience, Abelson suggests that "in the absence of empirical evidence to the contrary . . . for most people under ordinary circumstances, opinion disagreement per se is not dissonant [p. 130]." If this interpretation is applied to discrepancy and credibility effects, it is consistent with the findings. It has the disadvantage of severely restricting the generality of dissonance theory as applied to attitude change. The present study and many others indicate that attitudes do change as a function of opinion disagreement and source credibility.

REFERENCES


Hovland, C. I., Harvey, O. J., & Sherif, M. Assimilation and contrast effects in reactions to communication and attitude change. *Journal of Abnormal and Social Psychology*, 1957, 55, 244–252.


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