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The effect of public commitment on attitudes in consonant and dissonant situations

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THE EFFECT OF PUBLIC COMMITMENT ON ATTITUDES IN CONSONANT AND DISSONANT SITUATIONS

BY

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INTRODUCTION

Brehm and Cohen (1962) note that commitment has two major theoretical functions. Of primary importance is the implication of consonant and dissonant elements within the cognitive structure from which predictions about responses to new information can be drawn. When actions are taken which provide information dissonant to that held with commitment to an attitude, Festinger (1957) delineates several possible modes of resolution including alteration of overt behavior, alteration of the environment to which dissonant elements correspond, or adding new elements which are consonant with previous information. Secondarily, commitment increases resistance of the cognitive elements to alteration, making some modes of dissonance reduction more likely than others. Dissonance theory holds that the element least resistant to change will define the mode of resolution (Festinger, 1957). Commitment provides a highly specific element in an otherwise indistinct construction of implied cognitions. As such it will be very resistant to change:

> ... dissonance aroused in connection with a commitment is likely to be reduced by change in elements other than those involved in commitment. If a person chooses A of two alternatives, A & B, he is not likely to reduce the resulting dissonance by saying that his choice was wrong and that he should have chosen B [Brehm and Cohen, 1962, p. 9].

The effect of commitment in the dissonance formulation is essentially constrictive, reducing the number of variable elements and placing restrictions on the way in which other pertinent elements

may be changed in the course of dissonance reduction. Commitment is therefore seen as an anchoring element in the cognitive system from which specific effects may be predicted. As such, it occupies a central role in empirical tests of dissonance theory.

> Because commitment provides relatively clear specification of consonant and dissonant cognitions, it also provides rather readily a condition under which many aspects of the theory can be tested. Where a person can be clearly committed to a given behavior or decision, information that is unambiguously inconsistent with that commitment should create dissonance and the individual should manifest attempts to reduce that dissonance. In the absence of other forces, a failure to find attempts at dissonance reduction under these conditions would be clear evidence against the theory [Brehm and Cohen, 1962, p. 9].

In the design of empirical tests, attention has been given to what behaviors constitute commitment. These tests of theory require unequivocal explanation in terms of the theory. Brehm and Cohen (1962) point out that many attitude change paradigms are ambiguous with regard to the interrelationships of the variables and are consequently open to interpretation by judgemental principles as well as dissonance theory. Commitment clarifies these relationships in dissonance terms:

> What these studies illustrate is that when subjects commit themselves to exposure to a piece of discrepant information, dissonance is aroused by the inconsistency between their commitment behavior and their initial attitudes and not by the inconsistency between the communication and their initial attitudes. They can then only change their attitudes in line with the communication to which they have exposed themselves, and do so differentially, depending on the amount of dissonance they have experienced. It is this sort of situation that is entirely closed to judgemental interpretation and rather unequivocally explained by the dissonance formulation [Brehm and Cohen, 1962, p. 111].

Actual performance of a counterattitudinal act is then unnecessary to produce detectable dissonance effects whenever commitment is obtained. Rather, mere commitment to such a position should be sufficient for dissonance arousal, with reduction following one

of the methods predicted by dissonance theory (e.g., attitude shift). Empirical support is found in several forced compliance studies. In Brock and Blackwood (1962) Ss in either high or low justification conditions were asked to commit themselves to write a counterattitudinal essay by signing the title page. High justification Ss were given a number of reasons to argue against their own position by E, such as helping to solve social problems and aiding in the advancement of science. Low justification Ss received no encouragement from E. An attitude questionnaire was then completed before composing the essay. Results were in agreement with dissonance theory in that Ss in the low justification condition exhibited greater attitude shift toward the counterattitudinal position than those in high justification, both without performing the discrepant behavior. In Rabbie, Brehm, and Cohen (1959) a similar design was used in which half of the Ss received the attitude measure before writing a counterattitudinal essay, and half after. Varying conditions of inducement were employed in both groups. The results indicate that attitude shift occurred concomittant with inducement level for both groups. Both studies are in agreement with dissonance predictions on the basis of high or low justification, and demonstrate that in some form, commitment alone is capable of arousing dissonance in conjunction with low task justification. Brehm and Cohen's (1962) assertion that commitment is in fact the variable that is responsible for dissonance arousal is given some credibility but support is clouded by the presence of the traditional kingpin variable in dissonance theory, low justification, of which the Ss were well aware at the time of attitude shift measurement.

This cognitve element, the knowledge that counterattitudinal effort would in the future be required with low justification, is alone enough to meet theory requirements for dissonance production and subsequent change, leaving the only clear function of commitment in these designs to be an anchoring effect.

In order to determine the role of commitment behavior in its own right as a dissonance producing variable, and its consequent effect on attitude change, it is necessary to delineate more clearly what behavior constitutes commitment. Additionally, commitment must be described in terms that are amenable to use as operational definitions. Manipulation as a variable would otherwise be impossible. Before this can be done a distinction must be made between public and private commitment.

Forced choice studies often indicate commitment as a variable under manipulation by presenting Ss with discrepant information under high or low reinforcement for participation in the experiment (cf. Brehm and Cohen, 1962). Commitment is inferred by the act of S's consent to listen to such communication, or to perform a consonant or dissonant act. While in agreement with dissonance theory, such commitment is ambiguous. In a study by Kiesler, Pallak, and Kanouse (1968) the investigators describe their commitment manipulation as "varied by telling the subject that the speech, which advocated a position consistent with the subject's own, would be made public or remain anonymous[p. 332]." Each S in the high commitment condition read a consonant speech (prepared by E) against college tuition increases. Each S was told his speech would be heard as part of a nationwide study, that the audience

would probably think the opinions expressed were his own, and to include his name, address, and age. Low commitment Ss were told that the tapes would be chopped up and reassembled, guaranteeing anonymity. Dissonance was manipulated by providing high and low choice conditions with regard to participation in the counter-attitudinal task, writing an essay favoring greater similarity between public and private schools (e.g., tuition increases). The Es report significant differences between dissonance and control groups, indicating that the choice manipulation was effective. However, no significant effects of the commitment conditions alone were found ($t's < 1.0$); the contribution of the commitment variable on attitude change was in the form of an interaction with dissonance levels ($p < .05$). Low prior commitment on a related topic enhanced dissonance effects and attitude shift in the counterattitudinal direction. High commitment had the opposite effect, essentially counteracting dissonance.

The dissonance results themselves are typical of forced compliance studies, while the effect of commitment is notable for its apparent neutrality. Examination of the commitment manipulation shows it to be basically one of forced choice by assignment to threatening (nationwide audience) or non-threatening (anonymous) conditions. Rather than consonant commitment, the Es may have manipulated threats to self-esteem, resulting in differential attention toward the content of the prepared speeches. It is possibly the cognitive elements formulated in the delivery of the speech that interacted with the dissonance manipulation to produce the experimental results, and not the act of commitment itself. In addition, as in

most forced choice studies, attitude measurement was taken after both the commitment and dissonance manipulations, making it impossible to determine the effects of either alone. Conditions necessary for a distinction between public and private commitment did not obtain.

The confusion regarding the conditions that constitute commitment characteristic of this study has been common to studies of commitment as a contributing variable. Due to the design of forced compliance or free choice, and to the indirect nature of the dissonance formulation itself, the generation of commitment in Ss is implied through justification levels and the like rather than specified or demonstrated directly.

The value of public commitment as a variable lies in its explicitness for both S and E. Its anchoring function within the dissonance framework is explained by Festinger:

> The first and foremost source of resistance to change for any cognitive element is the responsiveness of such elements to reality...Given this strong and sometimes overwhelming responsiveness to reality, the problem of changing a behavioral cognitive element becomes the problem of changing the behavior which is mapped by the element. Consequently, the resistance to change of the cognitive element is identical with the resistance to change of the behavior reflected by that element, assuming the person maintains contact with reality [Festinger, 1957, p. 25].

The explicitness of commitment specifies what behavior is being mapped, and consequently, what is likely to change as a result of dissonance. Private commitment as utilized in many experiments is described only in terms of the behavior it changes (e.g., if there is much attitude change, S must have been committed very little; if S is resistant to change, he was highly committed). Public commitment is overt and discrete for S and E, and so cannot be denied without altering reality, providing a variable which anchors

the relevant cognitive elements into a set of relatively invariant relationships until new salient information is forthcoming.

Studies using the public commitment variable as a cognitve anchor within the design have confirmed its effectiveness in behavior-mapping element change. In conformity experiments involving stimulus matching, commitment may be regarded as a crucial anchoring point in the decisional process of stimulus judgement around which other elements may vary (e.g., social conformity or independence; Deutch and Gerard, 1955; Gerard, 1963). Commitment has been treated in a similar manner with regard to its effectiveness on dissonance reduction through information seeking in both free choice (Cohen, Brehm, and Latané, 1959; Adams, 1961) and forced compliance designs (Sears and Freedman, 1963). These examples characterize commitment as an either-or decisional phenomenon fitting neatly into dissonance theory (Brehm and Cohen, 1962, p. 113). But recent evidence indicates that depicting public commitment as a single binary event is incomplete, and although it serves adequately as a variable within dissonance theory, effects on attitudes have been observed following public commitment other than that to which dissonance can be applied (Jellison and Mills, 1969; Kiesler and Sakumura, 1966).

In their model for commitment, Kiesler and Sakumura (1966) define commitment as a binding of the individual to overt behavioral acts, the strength of commitment being determined by a number of variables including the explicitness and irrevocability of the act. In this, and in a similar study (Nuttin, 1966), attitude measurement was taken after both commitment and performance of the consonant action. A more recent study (Jellison and Mills, 1969) retained explicit commitment but separated commitment from performance by

interposition of the attitude measure. Jellison and Mills found in their first experiment, investigating the effect of public commitment on opinion change after forewarning of a persuasive attack, that Ss' private opinions became more extreme when they committed themselves to argue against proposals which they opposed. Ss were asked their views on several educational issues, and if opposed to them, commitment was then obtained by getting S to agree to make a tape recording of his position against two of these issues which he was told would be played before national audiences. After indicating that he would make the tape recordings each S was asked to sign a release thereby firmly committing himself. A Likert-type opinion questionnaire was then administered, containing items directly related to those on which S had declared his position, and items of the same type (educational issues) on which he was not publicly committed. It was found that Ss were significantly more negative on committed positions than uncommitted ($p < .05$). In the second part of their experiment (essentially a replication) Jellison and Mills obtained similar results. Ss were asked their views on two educational proposals (different from the first experiment), and if favorable, were asked to make a tape recording of them on one of the issues. Commitment was made explicit in a manner similar to the first experiment, signing a card declaring support for the proposals. Attitude was determined by a Likert-type scale, as in the first experiment. Results were in agreement with the first experiment: after public commitment Ss' opinions became more strongly in favor of a position they originally favored ($F = 16.61$, 1 & 19 df, $p < .01$).

The results cannot be explained in terms of dissonance in that Ss were not asked to provide arguments against their own position, nor did they receive any discrepant information or choose between high and low justification conditions. It is notable that the attitude measure was taken before the performance of any consonant activity, clearly isolating commitment as the salient variable. Jellison and Mills suggest the possibility ...that the performance of the consonant action may in some way reduce the effect which the commitment to perform the action has on opinions[p. 346]." A cognitive explanantion is offered for the results. Commitment may have increased the Ss' desire to be correct and to be certain of the validity of the arguments to be used in the tape recordings. Jellison and Mills contend that thinking of arguments in favor of their own side and against the opposing position would cause the Ss to take a more extreme position.

It has been shown that overt commitment to an act or position is a salient variable in attitude change both as the result of dissonance reduction and in designs to which dissonance does not apply. While it has often been used as an anchoring variable, commitment as a variable with independent effects has been neglected. The present experiment has been designed to investigate the effects of public commitment in both dissonance and non-dissonance contexts while eliminating much of the ambiguity of effect resulting from inferential methods of manipulation.

A number of specific hypotheses were drawn for the experimental conditions designed to meet these criteria. Jellison and Mills (1969) found that when "...subjects committed themselves to make a tape

recording of a position they favored, their private opinions became more strongly in favor of that position [p. 345]." An experimental condition, Commitment Only-Consonance (CO-C) was designed to correspond to the Jellison and Mills experiment, providing attitude measurement after overt commitment to a consonant position, but before performance of the committed act. It was predicted that within CO-C a significant amount of attitude shift toward the extreme of the position originally held would be shown between the attitude measures (a Pretest, taken before commitment, and a Posttest, taken after). A second consonance condition, Commitment with Argument-Consonance (CA-C), differed only from the first in that attitude measurement is preceded by both commitment and performance of the argument. Predicting from Jellison and Mills' speculations, CA-C would show positive change between the Pretest and Posttest, but significantly less than CO-C. These results would imply that performance of a consonant action reduces the effect of commitment on attitude, possibly through the presence of competing information S may cognize while formulating the argument.

Rabbie, Brehm, and Cohen (1959) suggest that there may be two ways to reduce dissonance resulting from the decision to argue a discrepant position: "...once the indivdiual has made the decision to take the discrepant stand, the ensuing dissonance can be reduced by attitude change or by actually verbalizing the stand. To the extent that he does one, he need not do the other [p. 414]." The present dissonance manipulation will provide exactly these conditions. In the first dissonance condition, Commitment Only-Dissonance (CO-D), the Posttest will take place after a discrepant stand had been committed,

but before verbalization of that stand. The second dissonance condition, Commitment with Argument-Dissonance (CA-D), provides verbalization (the argument) before the Posttest. If change in CO-D were due to the effects of dissonance reduction through attitude shift, Ss would become significantly more negative toward the originally held position. CA-D however would show no such effect, since dissonance reduction would have taken place before attitude measurement. It was predicted, then, that CO-D would be more negative than CA-D, reflecting the effects of dissonance reduction through attitude shift or verbalization in response to the same dissonance-producing conditions.

In addition to a check on temporal factors the Control condition will provide information in two areas. The items used in the investigation are themselves controversial topics; events in the news during the course of the experiment could conceivably influence the responses of the entire sample, or possibly a subgroup (one sex or the other). Secondly, attitude measurement will be done under very different settings between the Pretest and Posttest. The Control results will provide a check on the possible placebo effects of measurement itself under the one to one setting of the experimental room with equipment present. No significant differences were predicted within the Control group.

There is little information available in the literature on the functions of commitment in attitude change, and what is there, for the most part, is theoretical speculation about the role of commitment in fixing the positions of attitude elements prior to change. The small amount of actual data relates the act of commitment to gross attitude change without separating it from the attitudes

to which S is committed, essentially confounding the effects of either the attitude change or commitment. The primary purpose of the present study was therefore to determine the effects of commitment alone as contrasted with the customary treatment of commitment plus accompanying argument. Together these alternative treatments constitute the Commitment Factor.

Attitude change takes place in any context under one of two fundamental conditions, consonance or dissonance. While it is true that no two attitude elements are entirely consonant or dissonant with each other, the predominant relationship between them can always be characterized as consonant, dissonant, or irrelevant, and the direction of attitude change inferred from the prevailing condition. In the absence of any clear data differentiating between the function of commitment under consonance and dissonance, the experiment was designed to allow a clear comparison between the effects of each commitment treatment as they occurred under both conditions. The second major factor was therefore the Consonance-Dissonance conditions.

In order to determine the reliability of responses to the experimental items, the entire 31 item scale was administered to an equivalent sample of Ss in a pilot study prior to the actual experiment. Two items were found to produce about 30% of the responses in the desired ranges (7-9 for Topic 1, 3-5 for Topic 2). These ranges were chosen to allow detectable change in either direction. The final critical items are as follows:

Topic 1 - "Federal government aid for the construction of schools is long overdue, and should be instituted as permanent policy."

Topic 2 - "This country should disarm regardless of whether or not other countries do" (see Appendix A).

METHOD

Subjects. 100 Ss were chosen from the undergraduate Psychology classes at the University of Richmond.

Apparatus. The experiment was conducted in a room containing two tables, two chairs, and a tape recorder with microphone. A stop-watch was used to time the recordings.

Design and Procedure. The experiment was performed in two parts, following a four factor repeated measures design with repetition on one factor. The first part involved the assessment of the Ss' attitudes before the experimental manipulation, and was conducted in a group format. The second part was the experimental manipulation and immediate assessment of attitude change, conducted individually with each S. Attitude measurement in both parts was done using a subform of an eleven-point Likert-type scale constructed for use in this experiment (see Appendix A). The data consisted of the mean values of the critical items (those to which S was asked to commit himself in the experimental manipulations), and was analyzed by a 2x2x2x2 Analysis of Variance with appropriate post-hoc tests to locate sources of variance.

The Pretest was administered in booklet form with a cover sheet and instructions, followed by two pages of attitude items. Ss signed their names on the first page. After the booklets were passed out, instructions were read to the group by E.

Only Ss whose response on either of the critical items was between three and five or seven and nine were retained for the second part. These ranges allowed for the detection of significant attitude shifts in either direction as a result of the manipulations. Ss in the appropriate ranges were randomly assigned to one of the experimental conditions (or Control) for the second part, with the restriction that the male-female ratio was held approximately constant within each cell (Kiesler, Pallak, and Kanouse, 1968, found a consistent difference of attitude on some topics between the sexes).

In the second part the experimental groups to which Ss were assigned were as follows:

CO-C: Consonance condition (commitment to argue for a topic which S favored, or against a topic which S opposed), measurement of commitment effect on attitude before argument.

CA-C: Consonance condition, measurement of commitment effect after argument.

CO-D: Dissonance condition (commitment to argue against a topic which S favored, or for a topic which S opposed), measurement before argument.

CA-D: Dissonance condition, measurement after argument.

Control: Control condition receiving identical measurement conditions and instruments without commitment or argument manipulations.

This paradigm was designed to control effectively the operation of variables salient to the effects of commitment on attitude shift: CO-C provided a test on the effects of consonant public commitment alone in that only the declaration of commitment preceded the attitude change measurement (Posttest); CA-C indicated the role played by

commitment and performance of the consonant argument, both preceding measurement; CO-D was designed to detect any differential effect of commitment alone under dissonance, and was otherwise comparable to CO-C: CA-D was the dissonance couterpart of CA-C, the effect of both commitment and argument.

After formation of the experimental and Control groups, another experiment was announced to the group, described as unrelated to the first part. A sheet was passed around on which Ss signed up for individual time periods to record arguments. The names of the Ss in the condition being run appeared at the top of the sheet, and Ss were instructed to sign only if their name was on the list. The purpose of this was disguised for the Ss.

The following instructions were read to each S in the experimental room:

"As I explained in class, this is an experiment in the cognitive organization of concepts. In this part I am interested in finding out how people organize arguments (for/against, depending on condition) controversial subjects on very short notice, that is, when they have relatively little time to think about the arguments. The arguments are recorded for analysis later on by several professors and graduate students of the Psychology Department. In order that we can keep track of the variables, you will be asked to record your name before the argument if you agree to record one (stressed). Now, in order to completely randomize the topics, I would like you to choose one of these four cards (face down on the table). They have the topics on the other side. (S chose one, E removed the rest from sight, face down). What topic did you get? (S showed E the card; actually, all

are identical). Almost everyone so far has agreed to record an argument, even if they did not know much about their topic. I would like you to sign this release allowing us to use your tape for the experiment, and as a record of your agreement." If S refused, he was asked to take the Posttest, thanked, and allowed to leave.

If S agreed, he signed the sheet which states that he gives all rights to his tape recording to the University of Richmond Department of Psychology to use for scientific purposes. Verbal agreement and signing constituted public commitment to the topic. The procedure for each manipulation was as follows:

CO-C: Before proceding with the recording S was told that further information was needed and was given the Posttest. When finished, S was told he had five minutes to formulate and record an argument consonant with his position on the topic, and the timer was started. Scratch paper was provided for making an outline of the argument. S was reminded to include his name before the argument.

CA-C: S proceded directly from commitment to recording. Instructions were the same as in CO-C. When the recording was finished S was told that further information was needed, and the Posttest was administered.

CO-D: The procedure was identical to CO-C but commitment and argument were against S's own position as determined by the Pretest.

CA-D: Identical to CA-C but commitment and argument were against S's own position.

Control: S entered the experimental room and received instructions. "This is an experiment in the cognitive organization of concepts. I am interested in finding out how people organize their ideas about various subjects. I would like you to read the instructions

on this sheet (the Posttest) and then answer the questions."
When the Posttest was completed, S was thanked and allowed to leave.

The study was conducted with the Pretest-manipulation-Posttest design characteristic of most attitude change research. Accordingly, the dependent variable was the magnitude and direction of change following each Topic X Condition X Treatment combination, as measured along the eleven-point scale. In all, the design was a four factor 2x2x2x2 with repitition on the last factor. An Analysis of Variance was carried out on the raw data (the Ss' scores) to determine the relative influence of each of the factors across trials. It will be recalled the Ss were chosen for participation in the experiment on the basis of their Pretest responses to one of the two topics, that is, they responded within the 7-9 range for Topic 1 (schools) or the 3-5 range for Topic 2 (disarmament). When the data were combined for the final analysis this arbitrary Pretest score difference, included as raw data, would have indicated a significant difference between the Ss on the basis of the stimulus attitude when in fact the difference was an artifact of the design. Accordingly, each score of all Ss in Topic 2 (3-5 range) was converted from its original value to the corresponding value in the 7-9 range to allow a non-confounded analysis along a single scale. The choice of Topic 2 for conversion was also arbitrary, with the purpose of simplifying the meaning of the numerical results. Done this way, consonant change was indicated by the positive direction, dissonant change by the negative. The same factor relationships would have been obtained had Topic 1 been converted, but interpretation would have been

confusing because of this direction of change. The relative direction and absolute value of the scores was not altered by this procedure so that any variance indicated by the analysis reflected an actual difference between the effects of the topics on other factors.

RESULTS

From Table I it can be seen that a basic hypothesis of the study was given some support. The significant B X C X D interaction ($F = 6.03$, 1 and 38 df, $p < .025$) indicates systematic differences between the Commitment groups under Consonant and Dissonant conditions. The simple effects analysis shows that differences between the groups on the Pretest (D_1) were nonsignificant (Table II) demonstrating that the experimental manipulations were the source of the significant variance found between the groups at the Posttest (D_2) level (Table III; $F = 5.71$, 3 and 76 df, $p. < .005$). T-tests between the Posttest means (Table IV) of groups CO-C and CA-C (C at B_1) demonstrated the significantly greater effect of Commitment with Argument on consonant attitude change ($t_{obs} = 3.94$, 38 df, $p < .001$). However, the difference between the Dissonance groups was nonsignificant. Thus, the simple effects analysis of the B X C X D interaction clearly disconfirmed the hypothesized function of commitment as a factor capable of producing attitude change by itself. The superiority of Commitment with Argument was only clear, however, under Consonant conditions, perhaps indicating a difference in the basic function of commitment between Consonance and Dissonance. But inspection of Figure 1 shows that the same pattern of relationships was obtained for both Consonance and Dissonance groups, implying the difference is one of magnitude only. Post-hoc tests were conducted on the Pretest-Posttest data to assess the effects of the manipulations

TABLE I. SUMMARY ANALYSIS OF VARIANCE

Source	SS	df	ms	F	p
Total	407.77	159			
Between	232.75	79			
A (Stimulus)	11.37	1	11.37	4.55	<.05
B (Consonance/Dissonance)	6.39	1	6.39	2.56	ns
C (Com.Only/Com. Argument)	4.22	1			
A X B	2.17	1			
A X C	10.68	1	10.68	4.27	<.05
B X C	16.92	1	16.92	6.77	<.025
A X B X C	.72	1			
$Error_{between}$	180.28	72	2.50		
Within Subjects	227.49	80			
D (Trials)	5.62	1	5.62	2.36	ns
A X D	5.30	1			
B X D	14.42	1	14.42	6.06	<.05
C X D	9.05	1	9.05	3.80	ns
A X B X D	.30	1			
A X C X D	.93	1			
B X C X D	14.35	1	14.35	6.03	<.025
A X B X C X D	6.13	1	6.13	2.58	ns
$Error_{within}$	171.39	72	2.38		

TABLE II. SIMPLE EFFECTS-GROUPS AT D_1 (PRETEST)

Source	SS	df	ms	F	p
Total	2843.1	79			
Between groups	.66	3	.22	.31	ns
Error within groups	53.54	76			

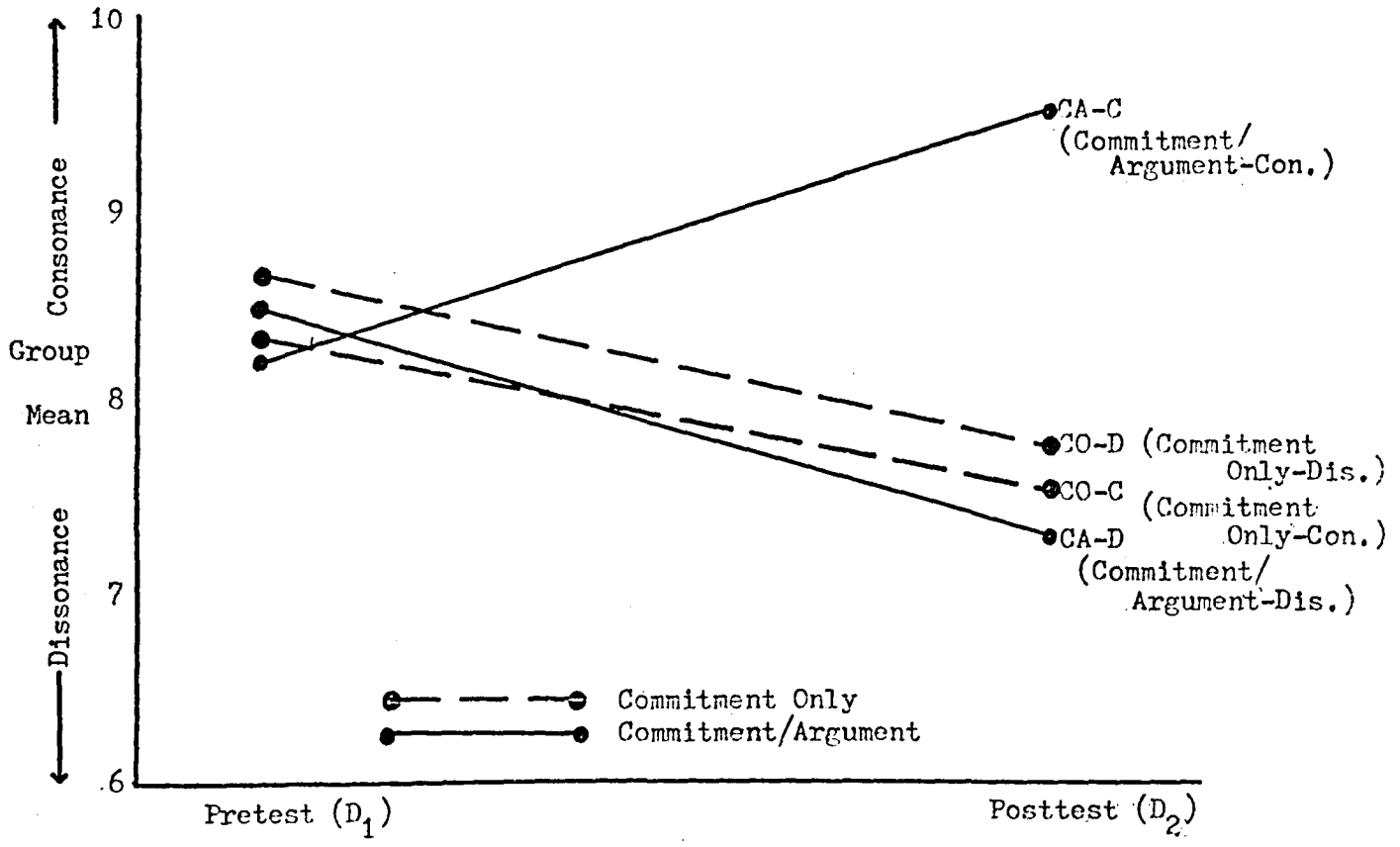
TABLE III. SIMPLE EFFECTS-GROUPS AT D_2 (POSTTEST)

Source	SS	df	ms	F	p
Total	347.95	79			
Between Groups	64.05	3	21.35	5.71	<.005
$\text{Error}_{\text{within groups}}$	283.90	76	3.74		

TABLE IV. PRETEST AND POSTTEST MEANS OF EXPERIMENTAL GROUPS

		Pre (D_1)	Post (D_2)	Mean Diff.	t values(Post)
	Com. Only	8.30	7.45	.85	
Consonance					3.94 ($p<.001$)
	Com./Argument	8.20	9.50	1.30	
	Com. Only	8.55	7.70	.85	
Dissonance					.67 (ns)
	Com./Argument	8.35	7.25	1.10	

FIGURE 1. MEANS OF EXPERIMENTAL GROUPS



within each group (Table V), The results further support the notion that Commitment with Argument is more effective than Commitment Only in that no significant change was observed within the Commitment Only groups, but CA-D Ss did show significant negative change after delivering the argument ($p < .05$). The pattern evident from the results shows a similarity in the function of commitment under both Consonance and Dissonance, but also indicate the Dissonance effect is somewhat reduced in magnitude.

Table I also shows an unexpected significant A X C interaction ($F = 4.09$, 3 and 76 df, $p < .05$). An analysis of Commitment levels by Topic (Table VI) shows the difference between groups to be significant ($F = 3.05$, 3 and 76 df, $p < .05$). Simple effects t-tests were then done in order to differentiate between the effectiveness of the Commitment treatments for each stimulus attitude (Table VII). No significant differences in the relative effectiveness of either Commitment treatment were found on Topic 1 (C at A_1), but Commitment with Argument was found to have resulted in significantly greater change than Commitment Only on Topic 2 (C at A_2; $t_{obs} = 4.03$, 38 df, $p < .001$). Figure 2 illustrates these relationships, implying that the process which resulted in the greater overall effectiveness of the Commitment with Argument manipulation was potentiated by some conceptual aspect of Topic 2.

Since the topics used as stimulus factors were current and somewhat controversial there was a possibility that events in the news might affect the Ss' attitudes as the data collection progressed, confounding the experimental effects. A Control group was therefore run for each Topic, concurrent with the other data collection, to ascertain the influence of current events. The Control group

TABLE V. EFFECT OF TRIALS BY GROUP (POST-HOC)

Source	SS	df	ms	F	p
$Trials_{Group\ CO-C}$	7.22	1	7.22	3.03	<.10
$Trials_{Group\ CA-C}$	17.00	1	17.00	7.14	<.01
$Trials_{Group\ CO-D}$	7.22	1	7.22	3.03	<.10
$Trials_{Group\ CA-D}$	12.10	1	12.10	5.08	<.05
$Error_{within\ groups}$	171.39	72	2.38		

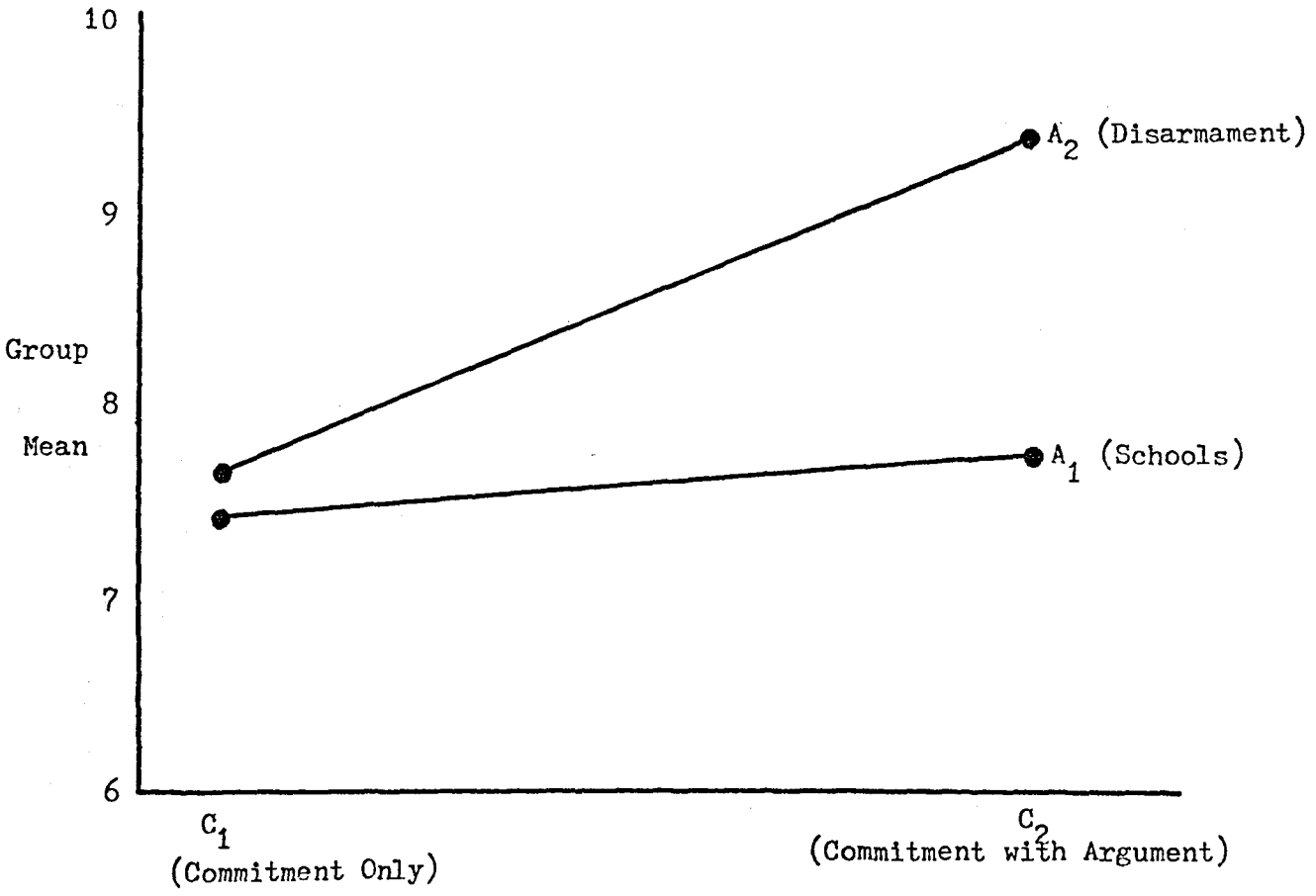
TABLE VI. SIMPLE EFFECTS-COMMITMENT TREATMENTS BY TOPIC

Source	SS	df	ms	F	p
Total	5436.00	79			
Between groups	37.45	3	12.48	3.05	<.05
Error$_{\text{within groups}}$	310.50	76	4.09		

TABLE VII. MEANS OF COMBINED COMMITMENT GROUPS BY TOPIC

	Topic	
	A_1	A_2
Commitment Only	7.75	7.70
Commitment/Argument	7.60	9.15
	t=.22, 38df (ns)	t=4.03, 38df ($p < .001$)

FIGURE 2. SIMPLE EFFECTS OF COMMITMENT AND TOPIC



data could not be included in the Analysis of Variance because it was designed as a check on the stability of the data and not as a no-treatment comparison group. Control Ss were not asked to commit themselves, or given any dissonance-producing information. These procedural differences prevented direct comparison of the Control and experimental groups. A t-test for related means was performed on the Control group data, and detected no significant differences for either Topic (Table VIII).

In all the results presented a pattern of relationships which indicated that Commitment with Argument was more effective in producing attitude change than Commitment Only, that the function of Commitment with Argument was the same for both Consonance and Dissonance, but that the magnitude of change produced was lower under Dissonance. This magnitude difference was further amplified in the present study by one of the Topics (disarmament), suggesting that some cognitive factor altered the relative power of commitment..

While it was not predicted that the two attitude stimuli should produce any differential effect, the possibility existed that the Ss might react to them or to the experimental situation in some systematic way in terms of personal involvement, effort put into the argument, or the quality of the argument as S perceived it. A short debriefing questionnaire was given, allowing each S to estimate the influence of these factors on an eleven-point scale, with a final open-ended question designed to find whether S had discovered the purpose of the manipulations. None of the Ss questioned reported any interpretation of the experiment other than that described by E in the instructions. Table IX summarizes the questionnaire results. This data could not be included in the main analysis

TABLE VIII. CONTROL GROUP MEANS

	Pretest	Posttest	Mean difference	t
Topic 1	8.0	7.8	.2	ns
Topic 2	4.1	3.5	.6	ns

TABLE IX. QUESTIONNAIRE RESULTS-RESPONSE MEANS

	Topic 1					Topic 2				
	n	1	2	3	4	n	1	2	3	4
CO-C	8	7.6	5.0	5.0	7.2	8	7.6	6.7	6.6	7.6
CA-C	5	5.2	4.4	5.0	6.0	9	5.8	5.5	5.0	6.5
CO-D	9	8.2	6.2	6.2	7.0	8	7.2	5.2	6.5	6.8
CA-D	7	5.0	4.4	4.7	4.8	7	6.8	4.5	4.1	6.1

since the questionnaire was introduced after the beginning of data collection and not all Ss were given the opportunity to respond. Although the number of Ss per group was the same, the number responding ranged from five to nine. In lieu of statistical analysis the questionnaire data show no apparent pattern between the Topics or groups, indicating no systematic bias along a particular factor.

DISCUSSION

The experiment sought to clarify two aspects of the attitude change process: a) the effectiveness of commitment itself, and b) the functions of commitment under both consonance and dissonance. The results provided information on both of these points, and also indicated some effects of the conceptual properties of the attitude stimulus on the relationships between other factors. Together these findings illustrate the operation of several major factors in attitude change.

The significant B X C X D interaction indicated that the effectiveness of commitment varied between the Consonance and Dissonance conditions. The simple effects analysis showed that contrary to predictions, Commitment with Argument (Group CA-C) was significantly more effective than Commitment Only (Group CO-C, $p < .001$), clearly disconfirming commitment itself as the factor responsible for consonant attitude change. The same pattern of results obtained for the Dissonance groups at a level below significance, although change within the CA-D group did reach significance ($p < .05$) as did change within the comparable Consonance group, CA-C ($p < .01$). Looking at the pattern presented by the commitment factors it is apparent that the results were consistent: the change within Commitment Only groups was of marginal significance ($p < .10$) with an identical Pretest-Posttest mean difference of .85; change within both Commitment with Argument groups was significant, occurred in the expected directions, and differed only in magnitude,

the Dissonance group being somewhat reduced. This implies that the difference between groups CO-D and CA-D did not reach significance due to the lower magnitude of change produced in Group CA-D, indicating a similar function of commitment for both consonance and dissonance, but that the power of the experimental manipulation was reduced by some factor unique to dissonance.

Since the main thrust of the study was to isolate commitment as a factor, the Commitment Only manipulation was comprised of task instructions and exposure to the attitude stimulus, followed by the commitment act itself. As was shown, this produced only marginal results. The Commitment with Argument treatment included task instructions, exposure to the stimulus, and commitment, followed by delivery of the argument. This treatment therefore consisted of many more cognitive elements and processes preceding the attitude measurement than the Commitment Only treatment. The pattern of significant results therefore indicates the commitment difference was due to something occurring during formulation and delivery of the argument. It follows that the magnitude difference found between the Consonance-Dissonance conditions also had its origin in these processes as a subsidiary effect.

Change could have been due either to different processes occurring under each manipulation, or to a different combination of factors interacting within the same basic framework. The consistency of the results between conditions strongly supports this second idea. Differences between the number and type of elements entering into the basic process would have resulted in varied amounts of change concordant with the nature of the manipulation. Character-

ization of attitude change in these terms does not imply that it is a fixed stimulus-processing program which passively adjusts S's attitudes to be congruent with new stimuli. Rather, the data suggest that a dynamic interaction takes place between new and pre-existing information in a continual reassessment of the relationships between cognitively relevant elements. The framework of this process is indicated by regularities of response shift found to be associated with particular antecedents, in this case the components of the treatment levels.

In order to specify the function of commitment as an antecedent in this scheme, it is necessary to examine the processes which took place at each level as they relate to a general model of attitude change.

Cognitive consistency or balance models of attitude change posit a fundamental drive toward psychological agreement between all cognitive elements of which a person becomes aware through stimuli impinging from the environment. The resolution of inconsistency in this model usually takes the form of the addition or averaging of new information with old to arrive at a balance between the original and new positions on a given attitude cluster. While complete consistency is rarely achieved, the balance process takes place to maximize agreement even if information must be distorted or ignored. A variety of models have been devised to account for behavior under specific stimulus conditions (Rokeach, 1969; Feldman, 1968; Anderson, 1968; Cartwright amd Harary, 1956; Osgood and Tannenbaum, 1955), taking the general conceptual form

$$\text{Pressure toward change} = \frac{\Sigma NP(\text{new})}{\Sigma NP(\text{original})} \qquad [1]$$

where N = the number of relevant attitude elements in each cluster and P = the average weight given the cluster as determined by the relative importance of the individual elements. The inducement to change an attitude position is seen to be equal to the ratio of new attitude elements to old, each weighted by its importance (adapted from Kiesler, Collins, and Miller, 1969, p. 195). In this model the valence of a cluster (consonant or dissonant) would not in itself alter the amount of change resulting from new stimuli but would instead dictate the direction of change when a resolution mode had been determined. The addition of a large number of cognitive elements, of any level of importance, would then be sufficient to alter the ratio to produce detectable change.

By characterizing the study which originally suggested the commitment hypothesis in terms of Equation [1], it becomes clear why the present Commitment Only manipulation failed to produce significant results. Jellison and Mills (1969) found that Ss became more extreme on several educational issues which they originally opposed following public commitment to argue against them. This was also found to occur when Ss committed themselves to argue for positions which they favored. There is no indication that the proposals used in the Jellsion and Mills study were relatively more important to the Ss than the topics used here. The strength of commitment in the Jellison and Mills study was potentiated by virtue of the fact that it included a large number of cognitive elements derived from commitment to several topics simultaneously. In this study commitment on either topic was made to a single, rather specific proposition comprised of relatively few attitude

elements. Considered according to Equation [1], the Commitment Only treatments added few new elements beyond the pre-existing position and so resulted in low inducement and questionable change.

It is clear from the results of the Commitment with Argument groups that the behavior which followed actual commitment was the source of most attitude change. Predicting from Equation [1], this could occur either from a drastic increase in the importance of the attitude for the Ss between the time of commitment and argument, or from the introduction of many more elements than were present in the Commitment Only groups. The first possibility is given initial support by the significant A X C interaction (Table I) indicating a differential effect of commitment dependent on the topic of argument. But the simple effects show this difference was due to the action of only one of the topics (disarmament) on the Commitment with Argument Ss which resulted in a large consonant increase in position. The explanation that importance increased does not account for the significant consonant increase which occurred for Ss who argued Topic 1, or for the negative change which occurred for Dissonance groups on both topics. It therefore seems highly likely that the significant Commitment with Argument effects were due to the addition of new cognitive elements during preparation and delivery of the argument, altering the Equation [1] ratio sufficiently to result in both consonant and dissonant change.

More change resulted in Commitment with Argument groups because of the many cognitions added during the argument. But the change within Group CA-C was of higher magnitude than that for Group CA-D although both were in the predicted direction. Since the location of significant variance within these groups was the oral argument,

it is likely that differences between them also originated there. The difference lies along the Consonance-Dissonance dimension, suggesting some basic properties of one not shared by the other. The problem can be resolved by examining the behavior of the Ss under each condition preceding and during the argument.

In the Consonance condition S committed himself to argue for something he favored (or against something he opposed). In order to produce a convincing argument in support of his position S then had to recall relevant facts, ideas, opinions, and propositions from memory, assemble them in a logical way, and phrase them so that they would be both audible and understandable. The entire process required much seeking of information and quick judgement of its relevance to the topic and the task. Ss were often so absorbed in the task that they were visibly irritated when E announced the time remaining at minute intervals. S was therefore highly motivated to actively search for support for a position in which he had some interest in addition to the commitment made before the task was begun. Since only relevant elements in agreement with the original position were sought by S, they combined additively resulting in a new position more extreme than the old. The process is somewhat modified for Dissonance Ss, however. When the commitment was made to argue against something which S supported (or the reverse) a slight amount of dissonance may have been aroused, but at a level too low to detect with the present design. Festinger (1957) maintains that when any dissonance is aroused the person will attempt immediately to reduce it, and if unsuccessful will at least actively avoid seeking new information which would increase it. Dissonance Ss were in a bind

in this situation: they had committed themselves to a discrepant task, thus preventing the reduction of dissonance through denying the relevance of the topic, and further, they were committed to producing information supporting it. A compromise was then necessary to minimize additional dissonance production while still satisfying the terms of commitment. This could be done by choosing less convincing arguments and insubstantial facts, and relating them in a less coherent way than S may have been capable of. Since the stimulus attitude against which the new information was compared was the same as that for Consonance groups, the effect of the dissonance arguments was relatively reduced, reflecting the Ss' need to satisfy two incompatible tasks simultaneously. No such incompatibilty occurred under Consonance and so greater attitude change occurred.

Direct support for this explanantion would come from the tape recordings made by the Ss. As determined by independent raters the arguments of Consonance Ss should be judged to be more convincing, coherent, and well-supported than those of Dissonance Ss, and objectively be longer in length and contain more facts and opinions. This leads also to the implication that if it were possible to equate the arguments for quality and objective criteria, no differences would be found in the magnitude of change produced by either Consonance or Dissonance.

Although the shift within the Commitment Only groups only approached significance ($p < .10$) it is worthwhile to examine the results presented by them in relation to the overall pattern of significant effects. Comparing between commitment levels, Figure 1 shows that the performance of the Dissonance groups (CO-D and CA-D) is nearly parallel. Complete symmetry of the commitment effect would

require the same parallel relationship between the significant CA-C group and nonsignificant CO-C, but this did not occur. The trend of CO-C was reversed toward the dissonant direction, and was the only group to produce countercommitment results. Examination of the raw scores of all ten Ss in Group CO-C revealed that although only one changed in the expected direction, six changed their position two or less points with three of these showing no change at all. The troublesome reversal is due to three Ss who reversed their positions between measures by three, four, and five points respectively. Only one S on Topic 2 changed negatively as much as three points. With no more evidence than this to explain a marginal trend it is reasonable to conclude that the CO-C reversal was a chance occurrence or subject error until an experiment can be designed to pursue the problem more directly. Such a study should take into account the variables of time between commitment and posttest, S's familiarity with the topic, its importance to S, and the clarity of the instructions. Ambiguity in any of these factors might have resulted in S's being unsure of his own ability to perform the task and resolving the possible threat by revising his original attitude toward a more neutral position, which would necessitate negative (dissonant) movement. This seems reasonable in that only four of the twenty CO-C Ss actually moved into the true disagreement range (below 5 for Topic 1, above 7 for Topic 2). Also, Kiesler (1968) notes that in previous studies the manipulation of public commitment has inadvertently resulted in dissonance as a by-product. Commitment might also make pre-existing dissonance (between individual elements of a single attitude) more salient when made public. In either case resolution of dissonance would require negative shift, which would be expected for CO-D Ss but not for CO-C Ss. Such dissonance

would be masked in both Commitment with Argument groups by the influx of new elements. This explanantion would be tenable if new data replicated the post-commitment negative shift. It would then be necessary to devise a very homogeneous attitude stimulus to insure the independence of commitment and dissonance.

It was noted above that a significant A X C interaction ($F = 4.27$, 1 and 72 df, $p < .05$) was found to indicate a varying effect between the topics on the Commitment treatments. The simple effects analysis (Table VI) found the difference between groups to be significant ($F = 3.05$, 3 and 76 df, $p < .05$) and showed that the performance of Commitment with Argument Ss was significantly greater than that of Commitment Only Ss on Topic 2 ($t_{obs} = 4.03$, 38 df, $p < .001$). The difference between groups on Topic 1 was nonsignificant. Some cognitive property of Topic 2 therefore increased the effectiveness of the Commitment with Argument treatment, evidently in Ss who changed in the consonant direction. Equation [1] implies this property was the importance of the attitude stimulus. Importance as a cognitive attribute of attitude has been central to discussions of attitude change and has been found to be a critical determinant of the relevance and centrality of a particular position. Applied to commitment, it has been shown to entirely control the power of the commitment act in influencing overt change (Kiesler, Collins, and Miller, 1969). Festinger (1957) delineates importance as one of the necessary antecedents of dissonance, with the amount of dissonance produced varying directly with the importance of the obverse elements, again describing a power relationship. Equation [1] shows why this should be so: ΣNP describes a multiplicative relationship between the individual

cognitive elements and the weight given each under S's own value system, the products of which are combined additively. The net effect (power) of only a few elements is very great if held to be central by S; if they border on irrelevance even a large number of inputs would have no actual effect. This theoretical scheme is not as speculative as it might seem. Stimuli of all kinds are perpetually bombarding the cognitive field, yet only a few are deemed relevant enough to affect an existing attitude, and even fewer result in large-scale reorientations of an entire cluster. Otherwise the stability and duration of an attitude would be so low as to prevent measurement. Moreover, in the present study a number of Ss in Topic 2 spontaneously commented about their personal concern over what were the relevant issues associated with the topic, including world peace, trust between nations, the historic role of the United States as a leader in world affairs, and the cost of the arms race. Very few comments of this type or ready arguments occurred on Topic 1 (one exception was an education major who had experienced problems finding a job because of school funding difficulties).

Equation [1] implies that the greater the number of elements to which importance is attached, the greater the resultant attitude change. Conversely, the lower the importance of the topic, the lesser the effect of the number of elements, whether large or small. Assuming Topic 2 to have been of greater importance than Topic 1, the qualitative results fulfill these predictions almost exactly. Figure 2 illustrates that Topic 2 as an attitude stimulus resulted in greater Posttest shift in both Commitment treatments (although the Commitment Only mean difference is nonsignificant), while neither Commitment level on Topic 1 was substantially altered (mean difference

between treatments = .15). This pattern denotes the function of both importance and commitment as factors in the change process. It was seen that commitment itself possesses no inherent ability to produce change independent of its association with substantive attitude elements or clusters, and that the role of importance was one of potentiating the effects produced by the interaction of all other relevant factors entering into the restoration of balance. Commitment to a single important issue resulted in greater shift than commitment to an unimportant one (Figure 2-C_2 means) while commitment followed by many important elements resulted in greater change than the same factors associated with an unimportant issue (Figure 2-C_2 means). The overriding influence of importance was underscored by the relative lack of movement of Ss in (unimportant) Topic 1 even after the inclusion of the arguments. The multiplicative property of importance made it a critical determinant of the magnitude attitude change.

Considering the role of commitment in attitude change according to the relationships indicated by Equation [1] it is clear why the main commitment hypothesis was disconfirmed. It was predicted that commitment to defend or attack a position on a particular topic would result in a more extreme position than that originally held, and that the addition of verbal argument following commitment would negate or reduce change instigated by the commitment act itself, under both consonance and dissonance (Jellison and Mills, 1969; Rabbie, Brehm, and Cohen, 1959). This was found to be incorrect, with only marginal shift occurring following commitment by itself. The difficulty posed by the discrepancy between these results and

those of Jellison and Mills is resolved by examining the operational definition of commitment in each study. Jellison and Mills asked their Ss to agree to make a tape recording and sign a release in a way almost identical to that used here, but the specifics of commitment were ambiguous and general in that commitment was made to an attitude area (education) rather than to a single topic. Measurement was made on related but not identical topics, further broadening the cluster of stimuli to which commitment was associated. By delaying measurement for a few minutes without any interpolated activity other than the related topics questionnaire, Jellison and Mills allowed their Ss to think about the stand they had committed. This nearly corresponds to the Commitment with Argument treatment used here, less the overt delivery of the argument. The present consonance results are therefore basically in agreement with the previous study in that Jellison and Mills failed to isolate commitment clearly and so measured the effect of commitment plus thinking, related to a topic area. Under these conditions Equation [1] would predict substantial shift. Similar results were predicted for dissonant commitment, and likewise, were disconfirmed. Rabbie, Brehm, and Cohen (1959) hypothesized that dissonance created by commitment to argue a discrepant position might be reduced by either attitude change or overt verbalization of the dissonant position. But their study failed to separate commitment from the dissonance-producing stimuli in that high or low justification was used as the operational definition for both dissonance and commitment. The failure of the present dissonant commitment to produce dissonance reduction reflects the isolation of commitment as a discrete act. When commitment is clarified in this way, it can be seen that the prediction of dissonance reduction

by either attitude shift or verbalization was not substantiated: with well-defined discrete variables, no change took place unless the dissonant position was verbalized. Whether any dissonance was created by discrepant commitment cannot be determined from the measures taken here; if so, it was not reduced through attitude change.

The only dependent variable used in this study was linear attitude change along an arbitrary scale. This may have been a limitation on the value of the results. Earlier studies (Brock and Blackwood, 1962; Brehm and Cohen, 1962; Rabbie, Brehm, and Cohen, 1959), have indicated commitment to have several effects in addition to gross attitude shift, including cognitive anchoring, psychological implication, and reality testing. Measures of these functions would have indicated that although commitment alone did not affect overall attitude shift, it may have specified the relationships which did actually result in overt attitude change. Equation [1] implies that a single element (such as commitment) has little power to change an entire cluster, but that once several new (or important) elements are made relevant, change will occur. The distinction is between the qualitative and quantitative effects of commitment. While commitment alone may not result in measureable change it may create the conditions that do so by bringing previously unrelated elements into cognitive relevance.

SUMMARY

While the data do not support the original hypothesis the consistent pattern of significant results does suggest an alternative view of the role of commitment. A primary objective of the study was to treat commitment as a discrete independent variable, avoiding the confusion resulting from inferential and partially confounded designs employed in most previous commitment studies, and this objective was achieved. Separation of commitment as a distinct variable allows specific inferences to be made about its function in the attitude change process. Kiesler (1968) summarizes the usefulness of the data:

> Commitment must be conceptually distinguished from dissonance. The first step (and a minimal one) in such a distinction would be to indicate the conditions under which one may vary commitment without affecting dissonance. Without at least this, the term commitment has no conceptual status independent of that of dissonance. I would argue that without the independent status, the term commitment is superfluous to social-psychological theory. One of the initial steps in making the distinction is to answer the question: Is commitment in and of itself motivating? I argue that it is not. If one wants to take the opposite position, he must clearly indicate the motivational properties of commitment that are distinct from those of dissonance. [Kiesler, 1968, p. 455]

The findings agree with Kiesler's proposition:

1) While commitment has the status of a cognitive factor, it has no motivating properties of its own which produce attitude change. Change in this experiment following commitment was shown to be dependent on the number and importance of cognitive elements with which the commitment was associated. The primary hypothesis that commitment would induce significant attitude change was not supported, agreeing in this respect with the results of Kiesler, Pallak, and

Kanouse (1968) and Kiesler and Sakumura (1966). Brehm and Cohen (1962) assert that commitment fixes the relationships between relevant cognitive elements, increasing their resistance to change and thereby restricting the ways in which balance may be restored. The data agree with this proposition in that change took place following both consonant and dissonant commitment, but required that a large number of elements be present for the shift to achieve significance. The function of commitment itself in this regard is unclear because of the lack of a no-treatment control participating in the argument manipulations. Presumably such a group would have many more avenues of restoring balance after stimulus input and would show less consequent shift.

2) The function of commitment (and argument) was shown to be the same under both consonance and dissonance, but the resultant amount of change under dissonance was reduced. This was seen to have been the result of conflicting motivations created by dissonance, in which S was at once bound by his commitment to perform the task and also desired to avoid the greater dissonance created by it. A compromise occurred which resulted in less attitude change, probably through ineffective information seeking.

3) The results also provide support for general dissonance theory (see p. 2). As predicted by dissonance theory, unambiguous commitment followed by discrepant information introduced during the argument resulted in dissonance reduction through attitude change.

4) The importance of the topic was found to strongly affect the magnitude of change produced, varying differentially with the number of elements present in the treatment. Like commitment, importance acted as a variable which by itself had no motivating

properties, but acted within the dynamic balance process to increase the salience of some factors and resulted in much greater overt change.

Public commitment produced no motivation to change attitude positions by itself, but did bind the S to the performance of a task which incorporated motivating factors. Two primary factors were found to be consonant or dissonant imbalance, and issue importance.

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APPENDIX

APPENDIX A

Two subforms of the attitude scale, composed of 62 items taken from three separate scales (Lerner, Pendorf, and Emery, 1971; Comrey and Newmeyer, 1965; Kerlinger, 1963) were used, one for each part of the experiment (31 items). A reliability study was conducted on a comparable but separate population preceding the experiment to determine inter-form reliability and compatability of the items. The percentage of Ss falling into ranges acceptable for Part II (item mean of 3-5 or 7-9) was checked, indicating overall suitability of the composite scales for the experiment. Inasmuch as each of the original scales was designed to discriminate along a liberal-conservative dimension (each reporting high reliability figures for this: Kerlinger, split-half reliability .78, .79; Lerner, Pendorf, and Emery, t-test discrimination between young and old Ss at $p < .05$ on 89.5% of the items; Comrey and Newmeyer, inter-form correlation = .96), the initial reliability study was primarily concerned with the ability of each of the subforms to detect Ss along this dimension as indicated by the percentage of the sample that scored within the desired ranges. About 30% did so on two items which were then used for the main study:

Topic 1 - "Federal government aid for the construction of schools is long overdue and should be instituted as permanent policy."

Topic 2 - This country should disarm regardless of whether or not other countries do.

These items were shown to be almost completely uncorrelated ($r = .03$).

APPENDIX B

PRETEST

1 2 3 4 5 6 7 8 9 10 11

Very Strongly Disagree — Neutral — Very Strongly Agree

1. Individuals who are against churches and religions should not be allowed to teach in college.
2. Laws dealing with drugs, such as marijuana, are unjust.
3. Employers should be prevented by law from hiring only people of their own race.
4. My conscience would bother me if I killed a man in war.
5. Laws which benefit the people are more important than laws which strengthen the nation.
6. Regulation of business by government usually does more harm than good.
7. The federal government has too much power over citizens and local government.
8. Individuals with the ability and foresight to earn and accumulate wealth should have the right to enjoy that wealth without government interference.
9. Every child should have religious instruction.
10. Government laws and regulations should be such as first to ensure the prosperity of business since the prosperity of all depends on the prosperity of business.
11. Federal government aid for the construction of schools is long overdue, and should be instituted as permanent policy.
12. The United nations should be wholeheartedly supported by all of us.
13. Our country should prepare to employ every available weapon to destroy any major power that seriously attacks us.
14. The government should guarantee every citizen enough to eat.
15. The United States should work peacefully for a strong world governemnt.
16. Science and society would both be better off if scientists took no part in politics.
17. When something is run by the government it is apt to be innefficient and wasteful.

18. There should be no interference with business and trade.

19. Our laws give too much protection to criminals.

20. Society should be quicker to throw out old ideas and traditions and to adopt new thinking and customs.

21. This country should disarm regardless of whether or not other countries do.

22. The United States should be willing to surrender some of its rights to strengthen the United Nations.

23. All individuals who are intellectually capable of benefitting from it should get college education, at public expense if necessary.

24. True democracy is limited in the United States because of the priviliges enjoyed by business and industry.

25. Universities should not oppose radical groups, but should provide them with the protection that others have.

26. Funds for school construction should come from state and federal government loans at no interest or very low interest.

27. If called upon to do so, a citizen should be willing to sacrifice his life for his country.

28. Laws dealing with drug conviction are too harsh.

29. It is moral to flee to Canada to escape the draft.

30. Marriages between persons of different races should be socially acceptable.

31. A first consideration in any society is the protection of property rights.

POSTTEST

1 2 3 4 5 6 7 8 9 10 11

Very Strongly Disagree — Neutral — Very Strongly Agree

1. The average man today is getting less than his rightful share of the national wealth.

2. A first consideration in any society is the protection of property rights.

3. A greater degree of government control over business would result in a weakening of this country's economy.

4. Some sort of religious education should be given in the public schools.

5. Laws dealing with drug conviction are too harsh.

6. Our laws give too much protection to criminals.

7. When something is run by the government, it is apt to be innefficient and wasteful.

8. Universities should not oppose radical groups, but should provide them with the same protection that others have.

9. The government should guarantee every citizen enough to eat.

10. Society should be quicker to throw out old ideas and traditions and to adopt new thinking and customs.

11. All individuals who are intellectually capable of benefitting from it should get college education, at public expense if necessary.

12. Regulation of business by government usually does more harm than good..

13. Every child should have religious instruction.

14. The United States should be willing to surrender some of its rights to strengthen the United Nations.

15. Federal government aid for the construction of schools is long overdue, and should be instituted as permanent policy.

16. The federal government has too much power over citizens and local government.

17. Our country should prepare to employ every available weapon to destroy any major power that seriously attacks us.

18. If called upon to do so, a citizen should be willing to sacrifice his life for his country.

19. Science and society would both be better off if scientists took no part in politics.

20. Government laws and regulations should be such as to first ensure the prosperity of business since the prosperity of all depends on prosperity of business.

21. Laws which benefit the people are more important than laws which strengthen the nation.

22. The United States should work peacefully for a strong world government.

23. Individuals with the ability and foresight to earn and accumulate wealth should have the right to enjoy that wealth without government interference and regulation.

24. There should be no government interference with business and trade.

25. This country should disarm regardless of whether or not other countries do.

26. Funds for school construction should come from state and federal government loans at no interest or very low interest.

27. The United Nations should be wholeheartedly supported by all of us.

28. True democracy is limited in the Unieted States because of the priviliges enjoyed by business and industry.

29. Large fortunes should be taxed fairly heavily over and above income taxes.

30. Employers should be prevented by law from hiring only people of their own race.

31. The gradual social ownership of industry needs to be encouraged if we are ever to cure some of the ills of society.

NAME_____

1) Indicate the amount of real effort you put into formulating your argument:

1 2 3 4 5 6 7 8 9 10 11

___ very little Very much

2) How convincing do you think your argument is?

1 2 3 4 5 6 7 8 9 10 11

___ Not convincing at all Very convincing

3) How well thought out is your argument?

1 2 3 4 5 6 7 8 9 10 11

___ Poorly Very well

4) Indicate how much personal involvement you felt while formulating and recording your argument.

1 2 3 4 5 6 7 8 9 10 11

___ No involvement Very much involvement

5) Do you think you understand what the experiment is about? _____.

If so, explain briefly:

Vita

Mark Joseph Slichter was born on October 18, 1947 in Omaha, Nebraska. He graduated from W. T. Woodson High School in Fairfax, Virginia. He attended the University of Virginia where he received a Bachelor of Arts degree in Psychology in 1969. He then completed one semester of graduate study in Psychology at California State College at Long Beach. In 1970 he returned to Charlottesville, Virginia to teach Special Education at Henley Junior High School. In 1971 he entered the Graduate School, Department of Psychology, at the University of Richmond where he will receive the Master of Arts degree.