

EFFECTS OF INVOLVEMENT LEVEL AND CONTEXTUAL STIMULI ON SOCIAL JUDGMENT¹

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The influence on item judgments of context and own-attitude anchors was studied in relation to involvement. For $\frac{1}{2}$ of the 80 Ss, all extreme in attitude towards organized religion, involvement was heightened by means of an interpersonal discussion where Ss defended their positions against a confederate assuming a contrary position. Judgments of moderate statements presented sequentially in the context of extreme anchor statements across 4 alternated trials revealed significant effects on the 1st 2 trials. Congruency of pro-own attitude, pro-context anchor, and heightened involvement produced the greatest initial contrast, in line with theoretical predictions, followed by assimilation to context anchors on the second trial. Dissipation of these potent effects is observed on subsequent trials.

While recent research aimed at a more comprehensive analysis of the judgment process has encompassed many areas of inquiry (Bieri, Atkins, Briar, Leaman, Miller, & Tripodi, 1966), one major aspect of this research has centered on "anchoring" effects in judgment. Anchors, as such, have been conceptualized both in terms of the own attitude of the judge operating as an internal anchor (Manis, 1961; Sherif & Hovland, 1961), as well as in terms of context anchors (Campbell, Hunt, & Lewis, 1957; Helson, 1947, 1959; Segall, 1959) which provide the background for the judgment of midrange or ambiguous stimuli. In their writings, Sherif and Hovland (1961) and Sherif, Sherif, and Nebergall (1965) have stressed the importance of the judge's own attitude as an internal anchor in the judgment of social stimuli in that their assimilation and contrast model is dependent on the distance lying between this anchor and the stimulus being judged. On the other hand, the adaptation-level framework of Helson (1947, 1959) involves background stimuli (translated into context anchors), focal stimuli, as well as residual factors including the judge's own attitude.

In a study specifically directed at an experimental analysis of the influence of context

anchors, Bieri, Orcutt, and Leaman (1963) used alternating extreme stimuli as context anchors for the judgment of moderate clinical stimuli. Their results revealed an initial contrast effect followed by a trend toward assimilation of moderate stimuli in the direction of the context anchors. Turning to the own-attitude anchor, Atkins (1966) dealt with extreme stimulus contexts in the form of either profraternity or antifraternity statements for judges who themselves differed in own attitude toward fraternities (pro, neutral, and anti). In a design similar to that employed by Bieri et al. (1963), in which a four-phase sequential alternation of extreme anchor statements was used, Atkins found that initially context anchors showed no effects, while the influence of own-attitude anchors was more marked. In fact, these own-attitude anchors induced an initial assimilation tendency, in which judges rated moderate statements in a manner consistent with their own stands. Curiously, however, these own-attitude effects proved to be transitory, with context anchors exerting a major influence on the succeeding trials.

Although it is apparent that further study is needed to gain a clearer picture of the interacting nature of both own-attitude and context anchors, the own-attitude anchor is itself a very complex variable which requires greater specification. Research using the own-attitude variable has typically emphasized the *extremity* of the judge's position as indicative of the pro-ness or con-ness of his attitude (Prothro, 1955; Upshaw, 1962; Zavalloni &

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Cook, 1965). However, it has more recently been pointed out (Bieri, 1967) that central to the own-attitude anchor is the degree of *involvement* of the judge's attitude in the issue under study.

As attention has been directed toward this much-neglected area, several approaches have been used to deal with both extremity and involvement simultaneously. Ward (1965) studied three groups of extremely pro-Negro judges, two of whom had actively picketed in favor of Negro rights. Heightening of involvement was accomplished for one of the picket groups by a technique suggested by Charters and Newcomb (1952), in which the importance of group membership was stressed. As expected, the picket group with heightening of involvement produced greater contrast effects than the picket group not exposed to involvement heightening, which in turn had greater contrast tendencies than the nonpicket group. Using a self-report method in a later study, Ward (1966) again found evidence for contrast effects for the more highly involved subjects. In a study of attitude change Miller (1965) was also concerned with the effects of involvement, since it has been demonstrated (Atkins, Deaux, & Bieri, 1967; Sherif & Hovland, 1961) that acceptance or rejection of a persuasive communication is affected by the subject's commitment to his position as well as his judgment of the location of the communicator's position. In Miller's study subjects were given a 300-word talk stressing the importance of their stand on fluoridation and inducing them to commit themselves to their stand. As predicted, those subjects for whom involvement was made more salient showed greater resistance to persuasive attempts. It is possible to infer that greater involvement may have led to a contrasting of the communication, and consequently less effectiveness.

In examining the available research on anchoring effects in judgment, it appears, then, that not only is it necessary to analyze the interactive effects of both context and own-attitude anchors, but the subject's involvement in his position must be studied simultaneously. Although the study by Atkins (1966) referred to earlier incorporated both own-attitude and context anchors, subjects were selected on the basis of extremity of own

position without regard to degree of involvement. The present study explores the effects of both context and own-attitude anchors in a setting where involvement was manipulated by means of an interpersonal discussion in which extreme subjects defended their positions towards organized religion against a communicator who assumed a contrary position. In order to preserve as much continuity with earlier work as possible, the same essential design was used as in the Atkins (1966) study in which both context and own-attitude anchors were present, and judgments were made in a four-phase sequential alternation of extreme context anchors.

The general hypothesis was that extreme judges whose involvement in the issue is heightened will differ in their anchoring tendencies from a comparable group of extreme judges given no involvement manipulation. From the theoretical formulations of Helson and of Sherif and Hovland it would be expected that anchoring effects would be most pronounced when both context and own-attitude anchors are congruent and when involvement is heightened. Such conditions would presumably yield the most marked contrast effects in judgment. This prediction stems from the consideration that all three variables would interact so as to create a strong anchor, shifting the adaptation level towards this anchor, with consequent contrast effects. A subsidiary aspect of this research was to investigate the results of a sequential alternation of anchors, since evidence points to subsequent assimilation tendencies (Atkins, 1966; Bieri et al., 1963). Further, since Atkins (1966) found a dissipation of own-attitude effects, it would seem useful to examine the persistence of the initial anchoring results as the number of trials continues.

METHOD

Subjects

Undergraduates in a variety of courses in a liberal arts college completed a Students' Attitudes Questionnaire designed to obtain information on their attitudes towards a number of social issues. These students rated each issue on a 15-point graphic rating scale with 1 indicating "very undesirable" and 15 indicating "very desirable." In addition, each student indicated how strongly he felt about the issue by checking one of four alternatives for each response

(i.e., feel very strongly, pretty strongly, not very strongly, not strongly at all). Among the statements to be rated was the issue of the desirability of adhering to the beliefs and practices of organized religion.

From this pool of approximately 200 subjects 80 were selected on the basis of the *extremity* of their responses to the question of adhering to the beliefs and practices of an organized religion (pro or anti) and the *strength* of their commitment to their position. Forty of these subjects had endorsed a position ranging from 12 to 15 (pro end of the scale), while the other 40 had endorsed a position ranging from 1 to 4 (anti end of the scale). The mean positions for these two groups were 13.9 and 2.5, respectively. Forty-five of the 80 subjects were female, and sex representation within each of the eight subgroups was approximately equal. All of these subjects had indicated that they felt either "pretty strongly" or "very strongly" about the issue. In effect, these subjects had revealed in the questionnaire that they took an extreme position on this issue and felt strongly about it.

Involvement Condition

Forty of the subjects (20 pro and 20 anti) were exposed to an interpersonal situation designed to heighten their involvement in the issue. This was accomplished by having a male student confederate engage each subject individually in a free interchange of ideas initiated by the confederate who described his own position towards organized religion. This was a prepared statement which was always directly opposed to the subject's known position, and the subject was asked to refute the interviewer (i.e., the subject was asked to support his own position). In this way, it was felt that in the course of the discussion the intellectual and emotional underpinnings of the subject's religious beliefs would become more salient to him. In addition, pretesting had established that having a tape recorder present to record the interaction increased the importance of the situation to the subject. The other 40 subjects were not exposed to any interpersonal discussion and proceeded directly to the anchoring task to be described below.

Anchoring Task

The stimuli to be judged consisted of statements expressing attitudes towards the beliefs and practices of organized religion. These statements were culled from a variety of sources and were selected from a larger pool of items judged by a group drawn from the same campus as the subject population. Judgments were made on a 15-point scale, and on the basis of the means and variances calculated from these ratings three sets of statements were compiled—a set of extremely proreligious statements ($\bar{X} = 13.4$), a set of extremely antireligious statements ($\bar{X} = 1.6$), and a set of moderate, midrange statements ($\bar{X} = 6.9$).

The anchoring task, which was analogous to that used by Atkins (1966), required subjects to make judgments of 12 statements presented as a group of three on each of four different trials. They were instructed to circle on a 15-point graphic rating scale the number which they thought "best indicates the stand toward religion that is represented in the statement," with 15 indicating "strongly favorable" and 1 indicating "strongly opposed." Each group of three statements consisted of two extremely pro (or two extremely anti) statements, constituting a context anchor, and one moderate, midrange statement. All three statements were judged, with the two extreme anchor statements being judged initially followed by the midrange statement. Sample triads of a pro-anchor and an anti-anchor set of statements are given below, the third statement in each set being a moderate one.

Pro-Anchor

Only through the adherence to the practices of an organized religion will man be able to discover the true essence of life.

Religious practices should command one's highest loyalty and respect.

Religious practices are neither good nor bad.

Anti-Anchor

Religious practices create people who are narrow-minded, fanatic, and intolerant.

Religious practices are not only ridiculous but also hypocritical.

It can't hurt to be a religious adherent.

The anchor conditions were alternated from one trial to the next, such that a subject who judged a moderate statement initially under a pro-context anchor would then judge a moderate statement under an anti-context anchor on the next trial, and so forth. The order of presentation of the four moderate statements was counterbalanced. The experimental approach consisted, then, of a $2 \times 2 \times 2$ factorial design involving: 2 conditions of own atti-

TABLE 1
ORDER OF JUDGMENTS OF MODERATE STATEMENTS FOR EACH EXPERIMENTAL GROUP

Own attitude	Involvement	Context conditions			
		Trial 1	Trial 2	Trial 3	Trial 4
Pro	Heightened	PPM	AAM	PPM	AAM
Pro	Not heightened	PPM	AAM	PPM	AAM
Pro	Heightened	AAM	PPM	AAM	PPM
Pro	Not heightened	AAM	PPM	AAM	PPM
Anti	Heightened	PPM	AAM	PPM	AAM
Anti	Not heightened	PPM	AAM	PPM	AAM
Anti	Heightened	AAM	PPM	AAM	PPM
Anti	Not heightened	AAM	PPM	AAM	PPM

Note.—P = pro statement, A = anti statement, M = moderate statement.

TABLE 2
ANALYSIS OF VARIANCE OF JUDGMENTS OF MODERATE STATEMENTS AT EACH OF FOUR SEQUENTIAL TRIALS

Source	df	Trial 1		Trial 2		Trial 3		Trial 4	
		MS	F	MS	F	MS	F	MS	F
Between groups									
Own attitude (A)	1	28.8	2.80	.1	.009	28.8	2.69	16.2	1.41
Involvement (B)	1	115.2	11.23**	4.1	.38	24.2	2.26	0	0
Context anchor (C)	1	5.0	.49	54.5	5.06*	2.4	.22	22.05	1.92
A × B	1	12.8	1.25	92.45	8.58**	39.2	3.66	14.45	1.26
A × C	1	9.8	.96	.05	.004	22.0	2.05	16.20	1.41
B × C	1	45.0	4.38*	1.25	.116	.45	.04	5.0	.43
A × B × C	1	7.2	.70	21.95	2.04	2.55	.24	1.25	.11
Within groups	72	10.26		10.77		10.70		11.5	
Total	79								

* $p < .05$ (two-tailed).
** $p < .01$ (two-tailed).

tude (pro or anti); 2 conditions of involvement (heightened or not heightened); and 2 conditions of initial context anchor (pro or anti). Table 1 presents an abbreviated form of the counterbalanced design used.

RESULTS

Because judgments were made on four successive trials, an analysis of variance was carried out at each of these trials. Table 2 summarizes the findings obtained for judgments of moderate statements across trials. Before ex-

aming the results in greater detail, it can be noted that the significant effects were found on the first two trials, with the last two trials revealing a dissipation of the rather strong initial anchoring and involvement effects. Table 2 indicates that a significant main effect was found due to involvement on the first trial. It can be observed from the means presented in Table 3 that judges under heightened involvement judged the moderate statements lower than the nonheightened-involved subjects.

TABLE 3
MEAN JUDGMENTS FOR OWN-ATTITUDE, INVOLVEMENT, AND CONTEXT CONDITIONS^a

Own attitude	Involvement	Context conditions			
		Trial 1	Trial 2	Trial 3	Trial 4
Pro	Group I—Heightened Group II—Not heightened	Pro	Anti	Pro	Anti
		3.4	5.4	4.9	5.4
Pro	Group III—Heightened Group IV—Not heightened	8.7	8.4	7.2	7.0
		Anti	Pro	Anti	Pro
Pro	Group III—Heightened Group IV—Not heightened	6.7	8.4	5.4	8.1
		7.8	8.8	8.1	8.2
Anti	Group V—Heightened Group VI—Not heightened	Pro	Anti	Pro	Anti
		6.7	8.7	8.2	8.3
Anti	Group VII—Heightened Group VIII—Not heightened	9.2	5.3	8.4	7.7
		Anti	Pro	Anti	Pro
Anti	Group VII—Heightened Group VIII—Not heightened	7.4	9.5	7.3	8.7
		8.1	7.7	6.5	7.6

^a N = 10 in each group.

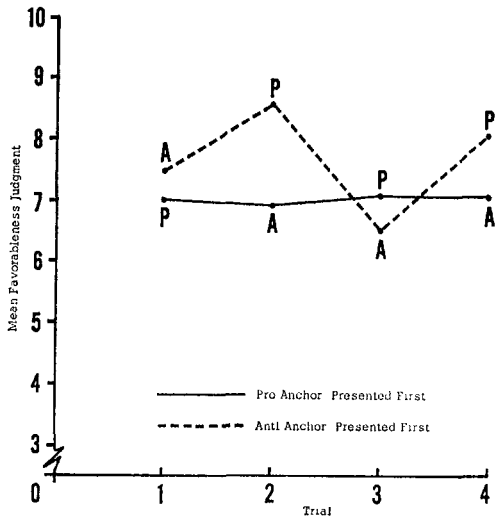


FIG. 1. Mean judgments of moderate statements under initial pro- and antireligious anchors.

On the second trial, however, the significant main effect is due to context anchors. Table 3 reveals that on Trial 2 antireligious context stimuli produced lower judgments than did proreligious context stimuli. In addition, a highly significant interaction between involvement and own attitude of the judge is observed on this trial. For a clearer understanding of how the three major variables operated and interacted, a series of graphs depicting the results is presented. In Figure 1 the data are collapsed to represent the mean judgments of pro- and anti-anchored moderate statements (i.e., the context-anchor conditions). As can be observed, there is little difference between the effects of the pro- and antireligious context anchors on the first trial. However, the initial antireligious context group manifests shifts on subsequent trials indicative of assimilation trends and consistent with earlier results reported by Atkins (1966). The initial pro-context anchor group shows almost no effect of context anchors on subsequent trials. That this flat curve conceals the major effects of *involvement* is revealed in Figure 2 where we observe that subjects with heightened involvement differ strikingly, especially on the first trial, under the initial pro-context anchor. Such effects are not produced under initial antireligious anchor contexts (Groups VII versus VIII, Table 3). This

involvement effect becomes even more pronounced when we examine Figure 3, where we note the differences between heightened involvement and no heightened involvement for pro-context initial anchor when the subjects are themselves also proreligious. Here the differences between Groups I and II on Trial 1 are significant at the .01 level ($t = 3.51$, $df = 18$). None of the other differences between groups on the initial trial attained a level of statistical significance. Thus, we see strong evidence for a *contrast* effect when own attitude is pro, the initial context of judgment is pro, and involvement is heightened. Although there is a tendency for antireligious subjects with heightened involvement to display some contrast from the pro context anchor relative to those not exposed to an involvement manipulation, this difference was not significant (Groups V versus VI). Thus, it is the *congruency* of pro own attitude and pro context anchor which produces the greatest initial contrast under heightened involvement, as reflected (Table 3) in the difference between the mean judgments of Groups I and V ($t = 2.52$, $df = 18$, $p < .03$).

As noted earlier, the main effects of context become apparent on Trial 2, and as was pointed out in Table 3 these effects are in terms of an assimilative direction. That is,

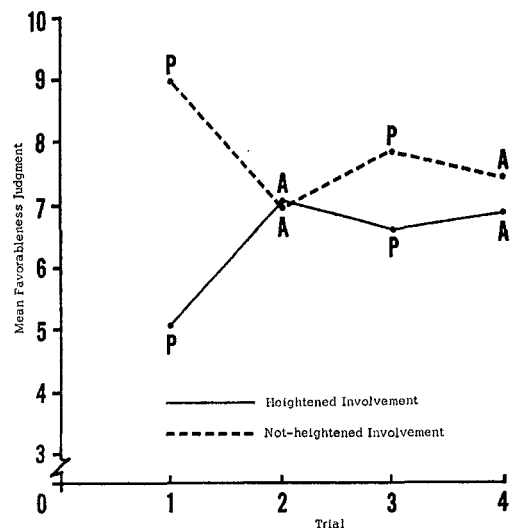


FIG. 2. Mean judgments of moderate statements for high versus low involvement under initial proreligious context anchor.

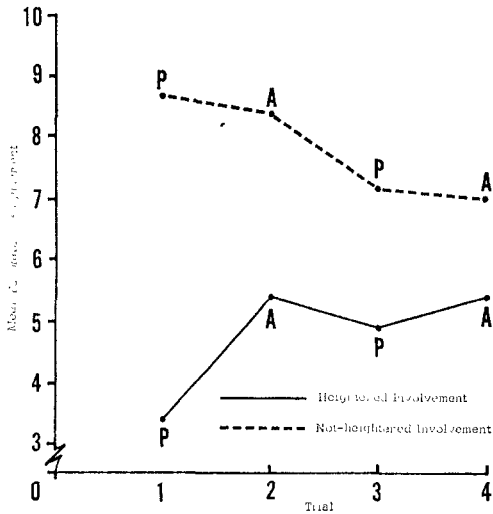


FIG. 3. Mean judgments of moderate statements for proreligious judges under high versus low involvement and initial proreligious context anchor.

pro contexts produced higher judgments than did anti contexts. At the same time, the interactive effects of our two other major variables are significant on this trial. As on the initial trial, the mean judgments for subjects who are antireligious in own attitude and exposed to the heightened-involvement manipulation are lower than are the judgments for the proreligious subjects under heightened involvement. However, in comparison to the results obtained earlier for these subjects when own attitude was congruent with context anchors, the results obtained on the second trial are quite different. On this trial, the only significant comparison between groups is found between Groups V and VI ($t = 2.28$, $df = 18$, $p < .05$). Strikingly, the congruency of antireligious own attitude with antireligious contexts produced a mean judgment reflective of *assimilation* for the group where involvement was *not* heightened. It is interesting to note that again congruency of own attitude and context are important, yet operate in an opposite direction.

DISCUSSION

The theoretical position of the Sherif and Hovland model (Sherif & Hovland, 1961) posits that judges with extreme positions and strong personal involvement will displace attitude statements away from their own posi-

tions. Furthermore, this displacement is expected to be maximal for ambiguous midscale items. Using this model, we have a simple and clear explanation for our findings on the first trial relative to the pro judges. At the same time, we feel that we have obtained evidence to highlight this tendency. By heightening the awareness of one's attitudes toward religion, we have shown that subjects matched for extremity and involvement can, in addition, be situationally aroused so as to produce even greater contrast tendencies. It would seem that such arousal creates strong affective responses in the subjects which manifest themselves in greater rejection of ambiguous stimuli.

These initial contrast tendencies can also be interpreted within Helson's adaptation-level framework (Helson, 1947, 1959). According to this theory, stimuli are judged with reference to the location of the subject's adaptation level, or point of neutrality. This adaptation level is determined by background factors, in this case the context anchor, focal stimuli, as well as residual factors including the judge's own attitude. It is logical to expect that when the judge's own attitude is pro and the context provided for judgment is also pro, the context anchor is reinforced. In effect, this means that the adaptation level shifts even more toward the pro context, and consequently the items being judged are displaced toward the opposite end of the scale. Furthermore, if we assume that heightening involvement makes this end anchor even more salient, it is to be expected that sharper contrast tendencies would result. Clearly, our findings for the pro judges are compatible with such an interpretation.

It would be parsimonious if all our results consistently supported these interpretations. However, our findings for the antireligious anchors, both context as well as own attitude, did not yield such definite contrast effects. Nor did involvement play a significant a role in exaggerating the contrast tendencies. Although there is no simple means of reconciling these differences, the data do suggest that pro-ness and anti-ness of own attitude may have different properties, despite the fact that both represent extreme positions along the same continuum. Others (Miller, 1965)

have also noted such differences. Indeed, the impression gained from listening to the taped responses of subjects was that the emotional impact of defending a proreligious position in the face of an interpersonal confrontation appeared to be greater than that experienced by antireligious subjects.

Further data bearing on the differences between pro- and antireligious subjects were available through an analysis of the latitudes of acceptance for both groups. Sherif and Hovland have indicated that extreme judges characteristically have narrow latitudes of acceptance and wide latitudes of rejection, thus facilitating contrast tendencies. In the present study, latitude of acceptance was measured after the anchoring task using the method of Atkins, Deaux, and Bieri (1967). It was found that pro judges whose involvement was heightened had somewhat narrower latitudes of acceptance than did antireligious subjects whose involvement was heightened. By dividing the pro-heightened-involvement subjects into two groups, those with the narrower latitudes of acceptance showed more marked contrast effects on the initial trial than did those with the wider latitudes of acceptance. The mean judgments of the moderate statements by these two groups were 4.0 and 7.5, respectively. Although one can only speculate at this point, it is suggested that the emotional involvement created by defending one's position against an opponent may have led to an even greater constriction of latitude of acceptance with a corresponding enhancement of contrast tendencies.

As in the study by Atkins (1966), we observe in the present research a dissipation of the effects of own attitude over trials. Further, the effects of the involvement manipulation are no longer in evidence on the later judgment trials. Such observations support the notion that heightened arousal may have transitory effects. Those conditions which would create and support the continuing effects of arousal need further empirical investigation.

It should be recognized that there are differences between the involvement and control conditions in the present research which warrant further study. Thus, before judging the first statements, the subjects in the in-

volvement condition had heard the opposing arguments of the confederate as well as his own arguments, and each of these views, acting as a prior anchor, might have affected the subsequent judgments irrespective of the involvement created in the subjects. An additional control condition in which subjects could read arguments which were both consistent and inconsistent with their own position would help clarify this method problem. Such a condition could also activate some degree of involvement, of course, and might also serve to clarify how varying levels of involvement interact with own position and context to influence judgment.

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