Stanley Presser Howard Schuman

Survey Research Center University of Michigan

Many survey questions require respondents to choose between two contrasting opinion alternatives. Frequently there is a logical middle position which some respondents might prefer to either end of the implicit attitude dimension. For instance, whether one is liberal or conservative could be answered by "middle-of-the-road": whether laws on marijuana should be more strict or less strict implies the possibility of "same as now"; whether the U.S. government provides too much or too little aid to another country can lead to the answer "right amount." Survey investigators must decide whether such a middle alternative should be built explicitly into a question, as against merely accepted when offered spontaneously or even discouraged altogether.

Our primary concern is whether such decisions by survey investigators have consequences for substantive conclusions drawn from attitude surveys. After documenting the fact that the presence or absence of an explicit middle alternative generally affects the proportion choosing it, we consider two types of possible consequences. First: Is the univariate distribution of the other alternatives altered significantly by the movement of respondents into or out of a middle position? Second: Does the relation of an item to other variables change importantly depending upon whether a middle alternative is offered?

Related to these practical questions are theoretical issues having to do with the nature of the middle position in a set of attitudinal alternatives. Three hypotheses are implied by how the middle position is handled. First, when survey investigators decide against offering an explicit middle alternative, they are usually assuming that the middle category consists largely of responses leaning toward one or the other polar alternatives, though perhaps of low intensity. Thus it is legitimate to press respondents to choose one of these alternatives, rather than allowing refuge to be taken in a noncommittal category. Second, some investigators omit the middle alternative in the belief that it tends to attract people who have no opinion on the issue and find it easier to choose a seemingly non-committal position than to say "don't know." Third, investigators who do offer a middle alternative are probably assuming that respondents who opt for it really do favor the middle position, and if forced to choose a polar alternative will contribute some form of random or systematic error to the distribution.

As part of a larger project on the effects of question form and wording (Schuman and Presser, 1977), we designed a series of middle alternative experiments to address these issues. Our main method of investigation is what has traditionally been called the "split-ballot." Two forms of an item, administered to random subsamples of the same survey, are compared in each experiment: on the Offered form of the item a middle alternative is explicitly read to respondents; on the Omitted form, no middle alternative is presented, although it is accepted if given by the respondent.<sup>1</sup>

Table 1 presents the exact wording for all our experiments. The Marijuana item was adapted from a 1972 Gallup survey and the Local Education item comes from the Institute for Social Research Election Studies. The other two questions (Vietnam and Liberal/Conservative) were modeled on frequently asked questions about these subjects. These four experiments (and five replications) were carried out as part of Survey Research Center national surveys: a 1974 faceto-face survey, a 1976 survey conducted partly face to face and partly by phone, and 1976, 1977, and 1978 telephone surveys. (Letters and digits are used to indicate the survey organization and time of survey, e.g., SRC-74F indicates the 1974 fall survey carried out by the Survey Research Center.)<sup>2</sup>

## Effects of the Middle Alternative on Middle Responses

The only previous middle alternative splitballot experiments that we know of were carried out in the 1940s. In their compilation of wording experiments, Rugg and Cantril (Cantril 1944, pp. 33-34) provide the marginals for two such comparisons. In one, the middle category differs between forms by about 30%; in the other, by only 3%. Tamulonis (1947, pp. 68-73) presents four additional examples, all of which show substantial shifts in the middle position, ranging from 16% to 52%. Finally, Stember and Hyman (1940-50) report a middle alternative split-ballot experiment that shows an increase in the middle position of 16%.

The results of our own nine experiments are quite similar. All nine show a highly significant increase (p<.001) in the middle category when it is offered explicitly, with the increase ranging from 11% to 20% in six of the cases. The other three instances involve the question (with two replications) on Liberal/Conservative selfidentification and reveal a much larger increase of 22 to 39%, possibly because in this case the "middle of-the-road" response is a socially wellcrystallized and approved one. If this last explanation is correct, then the fact that the middle category on the Liberal/Conservative Omitted form is not much larger than it is for our other items demonstrates how readily most respondents accept the constraints of the Omitted form.

## Effects of the Number of Other Categories on the Frequency of Middle Responses

Do respondents who move into the middle position when it is offered actually lean toward one of the other polar alternatives? If so, then we should be able to decrease the size of the Offered middle category (and therefore the size of the form effect) by providing alternatives between the polar positions and the middle point. However, if such respondents actually subscribe to the middle ground, then offering intermediate categories should have no impact on the size of the Offered middle category.

We were able to test this with data from the Liberal/Conservative experiment. In SRC-74F, in addition to asking the two forms of that item already presented, we included a third form with a 5-point scale: "On most political issues would you say you are liberal, somewhat liberal, middleof-the-road, somewhat conservative, or conservative?" Although the size of the middle category on this five-point Offered form (41.4%) is still much larger than on the Omitted form (16.2%), it is significantly smaller than on the three-point Offered form (53.7%). Offering the "somewhat liberal" and "somewhat conservative" categories reduces the number of respondents who choose the middle position, though it also draws from the "liberal" and "conservative" categories. It is possible that the provision of even more intermediate categories around the midpoint (say, a seven point scale) would further reduce the size of the middle category, and such experiments would be valuable. For the present, it appears that at least some respondents who choose the middle category on our three point Offered forms do lean toward one of the polar positions.

## Effects of the Middle Alternative on Other Categories

Depending on the item, between 11 and 39% of the total sample would take the middle position on the Offered form but move into other categories on the Omitted form. One possibility is that these individuals give responses on the Omitted form much like other respondents, thus leaving univariate distributions unaffected. If this happens, the marginals for the Omitted and Offered forms, excluding all middle responses, will not differ beyond sampling error.

We tested this null hypothesis for all the experiments, and in no case could it be rejected. Thus, apart from the size of the middle category itself, one would draw the same conclusions from the marginals for one form as from the marginals for the other form. Moreover, the same holds for the experiments presented three decades ago by Rugg and Cantril (1944), Tamulonis (1947), and Stember and Hyman (1949-1950): not one of their comparisons reveals a significant change in univariate distributions once middle responses are excluded. These findings are striking in consistency and important in implication, for they indicate that moving substantial numbers of respondents between middle and other (mainly polar) positions does not generally change the relative distributions among the latter.

However, the overall tests just reported may obscure one finer implication of the middle option--its effect on the Don't Know (DK) category. It is sometimes claimed that the middle category will attract persons who might otherwise say DK but prefer to give a more substantive sounding response. One implication of this hypothesis is that the proportion of DK responses should go down on the form that includes an explicit middle category. A review of our data shows that a decrease in DK does occur for eight of the nine comparisons, which would have happened on a chance basis less than two times out of a hundred. At the same time, all these differences are quite small, the largest being 3.7% and the average being less than 2%. Thus there is evidence that offering the middle position is linked to frequency of DK, but also that the connection is quite weak. Moreover, the correct interpretation of the DK difference by form is not necessarily that explicit middle alternatives attract DK respondents. It is equally possible that question forms omitting a middle alternative increase DK levels by forcing persons to say DK when they find it impossible to choose one of the polar alternatives. Distinguishing between these two possibilities would be theoretically interesting, but the tiny number of respondents involved means that neither process is an important factor in producing the form differences in the size of the middle alternative itself.

# Effects of the Middle Alternative on Associations

Although form differences in marginals are of some importance, the more critical issue for survey research is whether associations of variables differ significantly in nature or magnitude depending upon omission or inclusion of a middle alternative. For example, is education related differently to the "same" item when it omits rather than offers a middle alternative? If so, investigators will have to take account of this aspect of form in designing, analyzing and reporting survey questions and responses. On the other hand, if no important substantive differences in relations occur, inclusion or exclusion of a middle alternative can be treated as a matter of administrative convenience. This type of issue has not been thoroughly studied before: Rugg and Cantril (1944) do not proceed beyond the examination of marginals referred to above; Tamulonis (1947) does raise the issue but summarizes her results in a generalized fashion that makes their evaluation difficult; and the Stember and Hyman (1949-50) analysis is limited to a single item and its relation to the special problem of interviewer effects.

## Intensity and Choice of the Middle Alternative

We investigated several ways in which Omitted and Offered forms might produce different results in associations with other variables. Our first hypothesis was that persons feeling less intense about an issue should be attracted to the middle alternative, hence the Offered form should more completely remove such respondents from polar categories. An implication of this reasoning is that intensity of opinion should be more sharply related to middle vs. polar positions on the Offered form than on the Omitted form.

We tested this hypothesis by including intensity measures with three of our experiments --the two Marijuana replications and the initial Vietnam experiment. After each of these questions was answered, respondents were asked either, "How strongly do you feel about this issue: quite strongly or not so strongly?" or, for the second Marijuana replication, "How important is a candidate's position on penalties for marijuana use when you decide how to vote in an election--is it one of the most important factors you would consider, a very important factor, somewhat important, or not too important?" As can be seen in Table 2, in each case the difference in the relation to intensity is as expected: stronger on the Offered form. Although overall, the size of these differences is not great (it only approaches significance in two of the cases), the results are consistent in direction in three independent surveys.<sup>3</sup>

The finding that low intensity tends to be more strongly related to the middle position on the Offered form than on the Omitted can be stated in another way: the form effect is larger among less intense respondents than among more intense individuals. We interpret this to mean that people who have more definite or "crystallized" opinions on an issue are less likely to be influenced by variations in the categories offered.<sup>4</sup> A more direct test of this idea is possible with panel data, where the particular people affected by form can be identified. The Vietnam experiment was repeated in a reinterview of the SRC-74F sample with respondents who had been asked the Omitted form on the original interview asked the Offered form on the reinterview and vice versa. Table 3 shows that if one crossclassifies the responses (middle vs. polar alternatives) to the two different forms, itemintensity is clearly related to being affected by form. The relation between responses for those who claim to feel intensely is very strong (Q=.75) indicating that form has only a small impact on these individuals. By contrast, those who feel "not so strongly" show a large form effect, their relation between responses being relatively modest (0=.36). The three-way interaction, response to Offered form by response to Omitted form by intensity, is highly significant(p<.005). Thus intensity does specify the effect of form on response.

## Background Variables

Our second hypothesis about form differences in response was that they should be related to education. To the extent that being influenced by the offered response categories might be due to cognitive limitations, we expected the form effect to be greater for less educated respondents. If this were true, then the relation of education to the middle vs. polar position would be stronger on the Offered versions than on the Omitted.

In fact, there is no evidence for this

proposition. In some cases (Vietnam and Liberal/ Conservative) the more educated are less apt to be found in the middle position; in another case (Marijuana) they are more likely to be found in that category; and in still another case (Local Education) there is no relation between education and the middle alternative. But the important point is that all these findings are invariant with respect to question form. Thus one would draw the same conclusions about the relation of education to the middle position on both forms of an item.

We were also able to test variants of the "cognitive" hypothesis by measuring information about, and interest in, the general kinds of political issues that served as the content of these experiments. The measure of information consisted of three items asking for identification of political figures (e.g., Westmoreland), and the indicator of interest was a single question asking how much attention the respondent paid to national and international news. Although these tests were restricted to the three experiments in SRC-74F, none showed any evidence of an interactive effect with form.

Finally, we examined a number of standard background variables widely used in survey analysis (sex, age, race), and generally found them to be related to choice of the middle position in the same way on the two question forms. Moreover, in all the analyses reported in this section, the relation of the polar categories to background variables also does not interact significantly with form. (For a detailed presentation of these results for most of the experiments, see Presser, 1977.)

### Associations Between Attitudes

Our final hypothesis involves the issue of whether form affects conclusions about the nature of relations between attitudes. If correlations between attitudes are generally larger for those who feel more intensely (e.g., Jackman, 1977), then our finding that the average intensity of those in the polar categories is higher on the Offered form than on the Omitted one implies that correlations between polar opinions should be larger for Offered forms than for Omitted forms.5 We tested this notion for the three instances where there was a relation between experiments on at least one form.<sup>6</sup> In all three cases the difference is in the expected direction: the association between polar positions is stronger on the Offered form. In only one of these instances does the response by response by form interaction reach significance, but it is an important case since an investigator would draw quite different conclusions from the two forms about the relation of liberal/conservative self-identification to judgment of whether the U.S. gave too much or too little aid to the South Vietnamese government.

To test further the reliability of this last finding, the Vietnam and Liberal/Conservative experiments were repeated in SRC-78W. As may be seen in Table 4, the finding stands up well. As in 1974, on the Omitted versions there is no difference in opinion on Vietnam between liberals and conservatives, but on the Offered forms liberals are more likely to say "too much aid," conservatives "not enough."<sup>7</sup> Thus the relation that might be expected on some ideological grounds occurs on only one form. What seems to be happening is that among liberals the switch to the middle position on Vietnam comes disproportionately from the "not enough aid" category, whereas among conservatives it comes disproportionately from the "too much aid" response. It may be that respondents are somewhat uncomfortable holding these combinations of attitudes (Liberal with Not enough aid and Conservative with Too much aid), which are in some sense counter to conventional expectations, and thus are more likely to opt for the middle position on the Offered form as a way to resolve the "inconsistency." Whatever its interpretation, it should be noted that people affected by form are not contributing random error to the association, as might have been assumed, but instead join these issues together in a way opposite to that of people unaffected by form. (For a similar finding for respondents affected by No opinion filters see Schuman and Presser, 1978.) It thus appears that form can importantly alter the observed relation between attitudes.

## Conclusion

Offering an explicit middle alternative in a forced-choice attitude item increases the proportion of respondents in that category. On most issues the increase is in the neighborhood of ten to fifteen percent, but it may be considerably larger. Although there is a very slight decrease in the proportion of spontaneous "don't know" responses when the middle alternative is offered, almost all the change in the middle position comes from a decline in the polar positions. The decline seems to affect the polar positions proportionately, so that item form is unrelated to the univariate distribution of opinion once middle responses are excluded from analysis.

Intensity appears to be one factor distinguishing those affected by form from those not affected. The relation of intensity to the middle response is somewhat greater on the Offered form than on the Omitted. Background characteristics of the respondent, on the other hand, appear to be unrelated to form effect, and conclusions about the link between such variables and the middle position are unaffected by form. Finally, one inference about the association between the polar opinion categories of two different items was significantly affected by question form--with the effect replicated in a later experiment. This result warns us of how difficult it is to "prove" the null hypothesis--that question form has no effect on substantive conclusions--and suggests the need for further work to discover how frequently, and under what circumstances, such effects occur.

The response difference by form seems to be partly due to respondents who lean to one of the polar positions but do not feel strongly about the issue. Question form probably structures such respondents' decision-making. For a respondent with a weak opinion leaning in one direction, the answer to the question "Which of the offered alternatives am I closest to?" will differ depending on whether an investigator presents only the two polar options, or those two plus a middle position.

Susceptibility to constraint by question form has sometimes been seen in terms of cognitive limitations or passivity in the interview situation (see for example Schuman and Duncan 1974, p. 240). But there is another way of interpreting such susceptibility for middle alternative experiments. There are investigators who purposely omit a middle alternative in order to force respondents into one of the polar positions, and it is not unreasonable to assume that respondents who feel constrained by question form are in some sense aware of this intention. Such respondents may simply make different assumptions about the information being requested, depending on which question form is asked. Evidence for this interpretation comes from our finding that the form effect is essentially unrelated to measures of cognitive sophistication such as education and information.

If this analysis is correct, then what are its implications for whether middle alternatives should be included in survey items? In <u>Gauging Public Opinion</u> Rugg and Cantril (Cantril 1944, p. 33) suggest that the Offered form is preferable "in that it provides for an additional graduation of opinion." The problem with this solution is that the additional position is very heterogeneous, including those who lean in both directions as well as those who do not lean one way or the other. Writing a number of years after Rugg and Cantril, Payne advises:

> "If the direction in which people are <u>leaning</u> on the issue is the type of information wanted, it is better not to suggest the middle ground. . . If it is desired to sort out those with more definite convictions on the issue, then it is better to suggest the middleground" (1951, p. 64, emphasis in original).

While this is reasonable advice, there may be a way to accomplish both ends at the same time. Asking the Offered form and following it with a probe--"Which way do you lean?"--for those in the middle seems a promising strategy, and we are now undertaking expermental comparisons using this sequence.

## FOOTNOTES

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<sup>1</sup>An "If Volunteered" middle alternative response box was included on Omitted forms and interviewers were instructed to accept that answer if given spontaneously. This may reduce slightly the size of the form effect as compared to survey instructions that encourage interviewers to try to force respondents into one of the polar alternatives, accepting another response only as a last resort. The practice we followed deliberately confines the experiments to question form differences, since variations in interviewer practices would involve other factors difficult to standardize.

<sup>2</sup>Questionnaire forms were randomized by cover sheet instructions so that the randomization occurs within interviewer. (For the 1974 survey there were actually three forms, but except for the Liberal/Conservative experiment as described below, two of the forms were identical for the middle alternative experiments.) Response rates for the surveys varied from about 50 percent to 75 percent. The lower figures were on the telephone surveys most of which were composed of recontact samples from other face to face studies. Thus their response rates are a function of the original response rate, the proportion giving telephone numbers, and the recontact response rate. A comparison of the results based on the lower response rates with those from the study with the higher response rate turned up no differences. Likewise, the experimental comparison of mode of administration in the 1976 survey showed no differences.

<sup>3</sup>In testing for three-variable interactions we have used the method developed by Goodman (1971) for the analysis of multi-way contingency tables. All X<sup>2</sup>s reported are likelihood ratio statistics computed with the com-uter program ECTA. The probability levels reported must be regarded as approximations, since we have used SRS tests even though our samples involve some clustering. We computed more exact sampling errors (taking into account clustering) for all bivariate results (form by response) from our first survey; in no case did this change an inference importantly.

<sup>4</sup>The argument of Sherif and Sherif (1969) that attitudes are usefully seen as configurations of latitudes of acceptance and rejection applies here. Their finding that the more ego involved (i.e., intense) have smaller latitudes of acceptance and larger latitudes of rejection leads to the same conclusion that the less intense should be more affected by the presence of a middle category.

<sup>5</sup>We also examined whether correlations between <u>middle</u> vs. combined polar positions on different items are affected by form. In a preliminary analysis of our first set of experiments we reported that a "generalized set" might be implicated in the form effect because choosing the middle position on the Offered Vietnam item was more strongly related to choosing the middle position on another Offered item than on the corresponding Omitted forms (see Presser and Schuman 1975, p. 21). Analysis of the other experiments failed to replicate this finding.

<sup>6</sup>In the only other case where two experimental items can be inter-correlated (Marijuana and Local Education) there is no relation on either form. Since none of the items were originally designed to be associated, this case does not seem an appropriate test.

<sup>7</sup>In both years the Liberal/Conservative Offered form had five points which have been collapsed to three in these analyses.

# REFERENCES

Cantril, Hadley (1944), <u>Gauging Public Opinion</u>, Princeton: Princeton University Press.

Goodman, Leo A. (1971), "The Analysis of Multidimensional Contingency Tables: Stepwise Procedures and Direct Estimation Methods for Building Models for Multiple Classifications," <u>Technometrics</u>, 12, 33-61.

Jackman, Mary (1977). "Prejudice, Tolerance, and Attitudes Toward Ethnic Groups," <u>Social Science</u> <u>Research</u>, 6, 145-169.

Payne, Stanley L. (1951), The Art of Asking Questions, Princeton: Princeton University Press.

Presser, Stanley (1977), "Survey Question Wording and Attitudes in the General Public." Unpublished Ph.D. Dissertation, The University of Michigan.

, and Howard Schuman (1975), "Question Wording as an Independent Variable in Survey Analysis: A first Report," <u>Proceedings of the Social Statis-</u> tics Section, ASA, 16-25.

Schuman, Howard and Otis Dudley Duncan (1974), "Questions About Attitude Survey Questions," pp. 232-251 in <u>Sociological Methodology 1973-74</u>, Herbert L. Costner ed., San Francisco: Jossey-Bass.

\_\_\_\_\_, and Stanley Presser (1977), "Question Wording as an Independent Variable in Survey Analysis," <u>Sociological Methods and Research</u>, 6, 151-170.

\_\_\_\_\_, and Stanley Presser (1978), "The Assessment of No Opinion in Attitude Surveys" <u>Sociologi-</u> <u>cal Methodology</u> 1979.

Sherif, Muzafir and Carolyn Sherif (1969), <u>Social</u> Psychology, New York: Harper & Row.

Stember, Herbert and Herbert Hyman (1949-50), "How Interviewer Effects Operate Through Question Form, " International Journal of Opinion and Attitude Research, 3, 493-512.

Tamulonis, Valerie (1947), <u>The Effect of Question</u> Variations in Public Opinion Surveys, Master's Thesis, University of Denver.

## TABLE 1

#### Middle Alternative Split Ballots

#### Omitted Forms

In your opinion, should the penalties for using marijuana be <u>more</u> strict or <u>less</u> strict than they are now?

· · · · · · · · · · · · · · · · · · ·	1		(IF VOLUNTEERED)
1. MORE STRICT	5. LESS STRICT	3.	ABOUT SAME AS NOW

Looking back, do you think our government did <u>too much</u> to help the South Vietnamese government in the war, or <u>not enough</u> to help the South Vietnamese government?

	r	(
1. TOO MUCH	5. NOT ENOUGH	3. (IF VOLUNTEERED)
in a second seco		NIONT AMOUNT

On most political issues, would you say you are on the <u>liberal</u> side or on the conservative side?



Do you feel that the federal government has too much or too little control over local education?

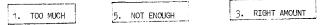


#### Offered Forms

In your opinion, should the penalties for using marijuana be <u>more</u> strict, less strict. or about the same as they are now?

		and the second
		1
1 MORE STRICT	5 LESS STRICT	3. ABOUT SAME AS NOW
T. MORE STRICT	J. LEGO UNITOT	

Looking back, do you think our government did <u>too much</u> to help the South Vietnamese government in the war, <u>not enough</u> to help the South Vietnamese government, or was it about the right amount?



On most political issues, would you say you are on the <u>liberal</u> side, on the <u>conservative</u> side, or <u>middle-of-the-road</u>?

	provide the second s	A REAL PROPERTY AND A REAL
1. LTBERAL	5. CONSERVATIVE	3. MIDDLE-OF-ROAD
1. LIDENAL	· · · · · · · · · · · · · · · · · · ·	
	and the second sec	the second s

Do you feel that the federal government has too much, too little, or the right amount of control over local education?

*	1	1
1. TOO MUCH	5. TOO LITTLE	3. RIGHT AMOUNT
have been stated as a second state of the seco	a second s	the second se

# TABLE 2

# RESPONSE (POLAR ALTERNATIVES VS MIDDLE) BY FORM AND ITEM INTENSITY

	OMITTED FORM		OFFERED	OFFERED FORM		
INTENSITY	POLAR ALTERNATIVES	MIDDLE ALTERNATIVE	POLAR ALTERNATIVES	MIDDLE ALTERNATIVE		
MARIJUANA (SRC 1976W):						
VERY STRONGLY NOT SO STRONGLY	410 137	34 24	356 99	74 61		
	x <sup>2</sup> <sub>1</sub> =6.61, p	<.02, Q=.36	$x_1^2 = 27.02$	x <sub>1</sub> <sup>2</sup> =27.05, p<.0001, Q=.50		
	Three-way	y interaction:	x <sup>2</sup> =0.93, n.s.			
MARIJUANA (SRC-1977S):						
ONE OF MOST IMPORTANT + VERY IMPORTANT* SOMEWHAT IMPORTANT	163	7	159	17		
+ NOT TOO IMPORTANT*	369	29	241	124		
	X <sub>1</sub> <sup>2</sup> =2.18, n.:	s., Q=.29	$x_1^2 = 41.10$	6, p<.0001, Q=.66		
	Three-way	y interaction:	$x_1^2=3.24$ , p<.10			
VIETNAM:						
VERY STRONGLY NOT SO STRONGLY	515 206	70 77	234 69	51 69		
	$x_1^2 = 29.84$ , p	<.0001, Q=.47	$x_1^2 = 46.4$	6, p<.0001, Q=.64		
	Three-way	y interaction:	$x_1^2=3.03$ , p<.10			

\*The third and fourth intensity categories were collapsed because they showed no difference in the way they affected the response-form relation; the first and second categories were collapsed partly for the same reason and partly because of the small number of cases in the first category.

### TABLE 3

OMITTED VIETNAM RESPONSE BY OFFERED VIETNAM RESPONSE BY INTENSITY\*

TABLE 4 VIETNAM RESPONSE BY LIBERAL/CONSERVATIVE RESPONSE BY FORM

	OMITTED FORMS			VERY STRONGLY	
	LIBERAL	MIDDLE	CONSERVATIVE		OMITTED FORM
TOO MUCH AID	76.7%	71.4%	76.9%	OFFERED FORM POLAR MIDDLE	POLAR MIDDLE 459 34 68 36
ABOUT RIGHT	7.0	21.4	9.0		$x_1^2 = 49.92$ p < .001 Q = .75
NOT ENOUGH	$\frac{16.3}{100.0\%}$ (172)	$\frac{7.1}{99.9\%}$ (28)	$\frac{14.0}{99.9\%}$ (321)		$x_1 - 49.92$ p $(.001 \ Q73)$
	$x_4^2 = 6$	.10, n.s.		NOT SO STRONGLY	
Due to association between polar positions: X <sup>2</sup> <sub>1</sub> =0.33, n.s.		POLAR 139 32	POLAR MIDDLE		
	LIBERAL	MIDDLE	CONSERVATIVE	MIDDLE	70 50
TOO MUCH AID	72.0%	59.4%	58.9%		$x_1^2 = 7.29  p < .01  Q = .36$
ABOUT RIGHT	22.0	28.0	24.2		
NOT ENOUGH	$\frac{6.1}{100.1\%}$ (132)	$\frac{12.6}{100.0\%}$ (143)	<u>16.8</u> 99.9% (202)	Three-way	y interaction: $X_1^2 = 9.68$ p<.005
	x <sub>4</sub> <sup>2</sup> =	11.62, p<.03			

Due to association between polar positions:  $\chi_1^2=10.19$ , p<.002

Three-way interaction: 
$$X_4^2=11.81$$
, p<.02

\*Respondents asked the Omitted form originally and the Offered form on the reinterview have been collapsed with those asked the Offered form originally and the Omitted form on the reinterview. The fourway interaction, response to Omitted form by response to Offered form by intensity by sequence in which the forms were asked, is not significant  $(X_1^2=2.11)$ . 48