Distraction : Effects on the Perceived Extremity of a Communication and on Cognitive Responses

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Distraction:
Effects on the Perceived Extremity of a Communication and on Cognitive Responses

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Participants listened to either a proattitudinal or counterattitudinal communication under varying levels of distraction. A distraction × message position interaction indicated that distraction decreased the perceived extremity of the counterattitudinal communication while increasing the perceived extremity of the proattitudinal message. Distraction decreased the number of counterarguments generated by counterattitudinal speech recipients, but unexpectedly did not significantly affect proargumentation. Proargumentation notwithstanding, the results were consistent with the dominant thought disruption hypothesis.

As a comprehensive interpretation of distraction effects on persuasion, the dominant thought disruption hypothesis (Petty et al., 1976) begins with the notion that one's dominant cognitive response to a communication is a major determinant of whether a communication is accepted or rejected, i.e., a communication which elicits primarily favorable cognitive responses (proarguments) is more likely to be accepted than one which evokes primarily unfavorable thoughts (counterarguments). Distraction can presumably disrupt the generation of the dominant cognitive response. Thus, if counterarguing is the dominant cognitive response to a communication, distraction should increase acceptance of that communication; but if proarguing is the dominant cognitive response, distraction should decrease acceptance of that communication.

In their tests of the dominant thought disruption hypothesis, Petty et al. manipulated the counterarguability of a counterattitudinal message (Experiment I) and of a proattitudinal message (Experiment II). In support of the dominant thought disruption hypothesis, they found that distraction enhanced the effectiveness of an easy-to-counterargue message via counterargument disruption, but decreased the effectiveness of a difficult-to-counterargue message via proargument disruption. A major purpose of the present study was to test the dominant thought disruption hypothesis in a conceptual replication of Petty et al. Whereas Petty et al. held message position (proattitudinal or

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counterattitudinal) constant within experiments, the present study manipulated message position and distraction in a single experiment.

A second feature of the present study is that it provided for a measure of perceived message discrepancy as a dependent variable in conjunction with traditional attitude change measures. The inclusion of this measure was prompted by the unsettling observation that a number of studies have found no distraction effects on attitude change (see Baron et al., 1973). But as noted by Ostrom et al. (1974), it is conceivable that shifts in the perceived discrepancy of a message may act as substitutes for shifts in attitude, for it can be as adaptive to displace the communicator's stand as it is to move one's own stand. In short, the failure of some studies to detect any significant differences in attitude change as a function of distraction may have been masked by shifts in the perceived discrepancy of the communication.

From a cognitive response approach, distraction could affect perceived discrepancy in much the same way as it affects attitude change. That is, with distraction-produced counterargument disruption, a counterattitudinal message may subsequently be perceived as less discrepant, whereas with proargument disruption, a proattitudinal message may seem more discrepant or less "pro." It should be added that little is known of the conditions under which perceived discrepancy shifts supplant attitude shifts. Thus, the inclusion of a perceived discrepancy measure in the present study can be considered, in part, exploratory.

To summarize briefly, the hypotheses of the present study were in accord with Petty et al.'s dominant thought disruption hypothesis: (a) Distraction increases the acceptance and/or decreases the perceived discrepancy of a counterattitudinal communication by disrupting counterargumentation; (b) distraction decreases the acceptance and/or increases the perceived discrepancy of a proattitudinal communication by disrupting the generation of proarguments.

METHOD

Introductory psychology and sociology undergraduates (41 females and 31 males) voluntarily served as research participants and received partial course credit. Participants were run singly by a male experimenter. Each participant was seated at a table facing a TV monitor and was informed that the study dealt with the ability to do two things at once. The experimenter explained that a taped speech would be transmitted over a set of headphones while a series of slides would be simultaneously displayed over the monitor. To minimize the potential bias of differential "sets" (Zimbardo et al., 1970), all participants were told that their primary task was to listen to the speech. This speech either advocated (counterattitudinal message) or opposed (proattitudinal message) the doubling of their university fees from $270 to $540 per semester. Each speech was about 3.5 minutes long and covered the same major points from either a pro or con perspective. A local disc jockey served as the taped speaker.

The distraction task consisted of both titling and rating the pleasantness of each of the distractor slides as they appeared on the monitor. Half of the slides depicted tranquil scenes from Hawaii, while the other half showed various hospital and war scenes. Slide order was randomized. Each distractor slide was displayed for 10.6 seconds and was followed by a blank slide whose exposure time varied in such a manner that the percentage of total time participants were distracted was either 90%, 50%, or 10% for high, moderate, and low distraction conditions.

At the conclusion of the tape, participants were allowed two minutes to list their thoughts about the speech. After all other measures had been taken, participants were asked to go back over the thoughts they had listed and to rate each one according to how favorable or unfavorable it was toward doubling fees. Those thoughts which were rated as being favorable toward the position advocated by the speech were scored as proarguments, and thoughts unfavorable toward the advocated position were scored as counterarguments. After listing their thoughts, participants rated in the following order on 61-point scales how favorable they were toward doubling fees, the appropriate amount that students should be assessed for incidental fees, and the perceived extremity of the speech's position. Finally, a distraction-effort manipulation check index was computed for each participant by averaging each participant's responses to 4 61-point scales dealing with their subjective experiences of distraction and effort produced by the distraction task.

RESULTS

The data were analyzed by 3 × 2 × 2 analyses of variance with distraction, message position, and sex as the between subjects factors. Post hoc analyses of significant effects were done with Fisher's least significant difference test (Winer, 1971).

Effectiveness of the Distraction Manipulation

The distraction manipulation was effective, $F(2, 60) = 22.83$, $p < .0001$; highly distracted subjects, $M = 41.76$, experienced more distraction-effort than moderately distracted subjects, $M = 36.01$, $p < .05$, who, in turn, experienced more distraction-effort than the lowly distracted subjects, $M = 22.57$, $p < .05$. No other effects on this index were significant.

Thought Disruption

As expected, distraction decreased the number of counterarguments generated by counterattitudinal speech recipients and had no significant effect on the number of counterarguments generated by proattitudinal speech recipients, $F(2, 60) = 3.21$, $p < .05$. The corresponding interaction on the number of proarguments generated was not significant, $F < 1.00$. See Table 1 for argumentation means.

Dominant Cognitive Responses

The message position manipulation was intended to influence the type of dominant response generated. The analyses of the cognitive response data showed that the subjects who were exposed to the counterattitudinal speech (CS) generated more counterarguments than did the proattitudinal speech (PS) subjects, M_{cs} = 1.67 versus M_{ps} = 0.69, $F(1, 60) = 14.87$, $p < .0001$, and they also generated fewer proarguments than did the proattitudinal speech subjects, M_{cs} = 1.67 versus M_{ps} = 2.28, $F(1, 60) = 4.89$, $p < .05$). Furthermore, under low distraction conditions, 57.4% of the thoughts written by counterattitudinal speech recipients were counterarguments, and 84.3% of the proattitudinal speech subjects' thoughts were proarguments. Thus, counterarguing appeared to be the dominant response to the counterattitudinal communication, while proarguing was the dominant response to the proattitudinal communication.

Perceived Message Extremity

A significant distraction × message position interaction on the perceived extremity of the speech, $F(2, 60) = 4.23$, $p < .02$, showed that distraction decreased, $p < .05$, perceptions of how favorable the counterattitudinal speech was toward doubling fees, while increasing, $p < .10$, such perceptions of the proattitudinal speech. The means for this interaction are presented in Table 1. In effect, as distraction increased, the counterattitudinal speech was rated as being less counterattitudinal, or closer to the recipient's own position, while the proattitudinal speech was rated as being less proattitudinal, or more discrepant from the recipient's own position. The only other effect on this measure was a message position main effect, $F(1, 60) = 721.22$, $p < .0001$, which simply showed that the counterattitudinal speech was perceived to be highly favorable toward doubling fees, M = 52.50, and the proattitudinal speech was rated as being highly opposed to doubling fees, M = 8.89.

Favorableness and Appropriate Fee

Only the main effect of message position proved to be significant in the analyses of favorableness toward doubling fees, $F(1, 60) = 19.52$, $p < .0001$, and of recommended fees, $F(1, 60) = 15.81$, $p < .0001$. Recipients who heard the speech advocating a fee increase were more favorable toward doubling fees and recommended higher fees than recipients who heard the speech opposing a fee increase, means of 14.86 versus 5.28 and 17.17 versus 7.50 respectively.

DISCUSSION

As predicted by the dominant thought disruption hypothesis, distraction decreased the perceived extremity (discrepancy) of the counterattitudinal speech and increased the perceived extremity of the proattitudinal speech. This same interaction, however, was nonsignificant on the two more "traditional" measures of attitude change. Perhaps the shifts in perceived discrepancy acted as

TABLE 1 Argumentation and Perceived Message Extremity Means

Message Position	*Distraction*					
	Low		*Moderate*		*High*	
	Proargumentation and Counterargumentation					
Counterattitudinal	*M*	%	*M*	%	*M*	%
Counterarguments	2.25_b	57.4	1.25_{ac}	42.8	1.50_{bc}	47.3
Proarguments	1.67	42.6	1.67	57.2	1.67	52.7
Total	3.92	100.0	2.92	100.0	3.17	100.0
Proattitudinal						
Counterarguments	0.42_a	15.7	0.75_{ac}	22.5	0.92_{ac}	31.5
Proarguments	2.25	84.3	2.58	77.5	2.00	68.5
Total	2.67	100.0	3.33	100.0	2.92	100.0
	Perceived Extremity of Message's Position					
Counterattitudinal	55.00_b		53.17_{bc}		49.33_c	
Proattitudinal	6.42_a		8.67_a		11.58_a	

Cell n = 12. Means holding no subscripts in common differ at $p < .05$. The means of 6.42 and 11.58 on the perceived extremity measure differ at $p < .10$. End anchors for the perceived extremity scale were "the speech was completely opposed to doubling fees" = 0 and "the speech was completely in favor of doubling fees" = 60.

substitutes for shifts in attitude (Ostrom et al., 1974). The intention of the present study was not to test when such substitution effects occur, but simply to allow for their occurrence. To the extent that the perceived extremity measure used in the present study resembled a measure of attitude polarization, the substitution effects were not in themselves unusual, for Tesser (1976) has reported that distraction, relative to thought, depolarizes attitudes but does not affect attitude change per se.

The hypothesis that distraction effects are mediated by changes in the dominant cognitive response was supported by the significant disruption of counterarguing. However, the observed drop in the pertinent percentages of proarguing (see Table 1) from 84% (low distraction) to 69% (high distraction) was not statistically significant. Several explanations for the failure to obtain the predicted proargument disruption effect can be advanced. First, the argument that the distraction manipulation was not strong enough to disrupt proarguing is weakened by the fact that counterarguing was disrupted. Second, proargumentation may be relatively resistant to experimental treatments (e.g., Cacioppo, 1979; Cacioppo & Petty, 1979; Edell & Mitchell, 1978; Petty et al., 1976; Wright, 1973), perhaps because generating proarguments is akin to delivering the socially desirable responses in many situations. Thus, proarguments may be less dependable than counterarguments as mediators of message acceptance

(Wright, 1973). Finally, Tesser (1976) refers to cognitive changes as mediators of his distraction-thought effects on attitude polarization, yet he typically has found no effects on cognitive responses. It is possible, then, that shifts in the perceived extremity of a message, much like polarization, either require only subtle changes in cognitive responses (as measured by present thought production methods) or are mediated by some other variable(s).

On the whole, the present study not only corroborates Petty et al.'s (1976) dominant thought disruption hypothesis, but it also highlights the need to define more clearly the conditions under which meaningful response differences occur in other than traditional measures of attitude change and thought production.

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