The Multiple Source Effect in Persuasion:
The Effects of Distraction

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Holding constant information about the number of sources and number of arguments to which they might be exposed, subjects viewed one source presenting three different arguments, three sources presenting different versions of a single argument, or three sources presenting three different arguments (one each) in favor of a counterattitudinal position. For half of the subjects, this message was accompanied by a distraction task. In the single task conditions, replicating Harkins and Petty (1981), three-source/three-arguments subjects were more persuaded than subjects in the other two conditions, but when the message was accompanied by a distractor, this persuasive advantage disappeared. Since distraction also led to disruption of favorable thought production, but left recall unaffected, these data are consistent with the view that the enhanced persuasion found in the multiple-source/multiple-argument condition is the result of additional message elaboration elicited by the combination of different sources and different arguments.

Persuasion researchers have paid little attention to one of the most basic features of the communication setting: the number of sources of a persuasive message. This is surprising given the many situations in which a message is delivered by multiple people (for example, multiple testimonials for a product on TV, multiple character witnesses for a defendant in a trial). Perhaps this lack of interest results from the feeling that little new would be learned from a study of multiple sources, since research on the relevant factors has already been conducted. For example, conformity pressures, resulting from knowing that others support a position, often lead to movement toward that attitude position simply as a result of normative influence (see Krech, Crutchfield, & Ballachey, 1962; White, 1975). Also, multiple sources may generate different arguments to support their position, and research shows that increasing the number of

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AUTHORS' NOTE: This research was supported by National Science Foundation Grant BNS 7913753 to the authors. Portions of this research were presented at the American Psychological Association convention, September, 1980, in Montreal. Requests for

Personality and Social Psychology Bulletin, Vol. 7 No. 4, December 1981 627-635

arguments used in a persuasive message leads to enhanced persuasion (Calder, Insko, & Yandell, 1974).

However, in previous research on the number of sources, *actual exposure* to persons or their arguments has been confounded with the mere knowledge that the persons or arguments existed. That is, subjects have been exposed either to the positions of one or multiple sources, or to one or multiple arguments, but subjects in the one-person or one-argument conditions have not explicitly been informed that multiple sources or multiple arguments also existed supporting the advocated position, and that they might be exposed to these sources and arguments. Thus, it was not possible to determine whether the information about the number of sources or number of arguments to which they might be exposed would have been sufficient to lead to attitude change, or if actual exposure to these factors was required for persuasion to occur. In a previous study designed to explore this issue (Harkins & Petty, 1981), we exposed subjects to one or three arguments presented by one or three sources, but held constant background information about arguments and sources by telling all of the subjects that we had videotaped three people who advocated a particular position. Subjects were further told that each of these people had generated three arguments on the issue and that they might be exposed to these people and their arguments. This allowed a test of whether actual exposure to sources or arguments had persuasive impact beyond that achieved by the mere knowledge of the number of sources and arguments to which they might be exposed. We found that actual exposure led to additional persuasive impact only when participants were exposed to multiple sources delivering multiple arguments. Exposure to a single source presenting a single argument, to multiple sources who gave different versions of the same argument, and to multiple arguments given by the same source led to no more persuasion than that resulting from the background information about persons and arguments. In addition, subjects did not differ by condition in either their recall of the message arguments or in their estimates of the percentage of their peers they thought would support the proposal.

This pattern of results suggested two plausible alternative explanations. One possibility is that subjects, seeing three different sources independently generate three different, yet convincing, arguments, conclude that a large pool of good arguments in favor of the advocated position must exist, and so, it must be a position worth supporting. Subjects seeing three sources each present the same argument, or a single source (who would be motivated to avoid repeating an argument) present different arguments, would have less reason to come to this conclusion.

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A second interpretation would suggest that subjects who are exposed to multiple sources presenting multiple arguments process the content of the message more thoroughly than subjects in the other conditions. That is, each time a source appears, the subject "gears up" to process the message. If it is a new source, and a new argument, the target thinks about the argument's implications and since the arguments are sound, favorable thoughts and persuasion result. However, if the same source appears again, even though with new arguments, the target may put less effort into thinking about the argument since this source has been heard from already. Likewise, if new sources are presented, but with the same argument, little additional processing takes place. After all, the target has heard the argument before.[1] Consistent with this interpretation, multiple-source/multiple-argument subjects generated more favorable thoughts concerning the advocated position than subjects in the other conditions.

These possibilities were tested in a second experiment in which in one condition subjects were led to believe that the arguments that were presented exhausted the pool of good arguments in favor of the position. In this condition, the argument pool explanation would predict no persuasive advantage resulting from multiple sources presenting multiple arguments, since the argument pool was limited to the number of arguments presented. Although manipulation checks revealed that the argument pool induction was successful, limiting the argument pool did not reduce persuasion. Multiple sources presenting multiple arguments were more persuasive than single sources presenting the same information whether or not the argument pool was limited. These results are consistent with a processing interpretation since limiting the size of the argument pool should not affect one's reactions to the arguments that are actually presented. The processing interpretation received further support from the results of a third experiment in which argument quality was manipulated. Subjects exposed to three sources presenting three convincing arguments were more persuaded than those exposed to the same arguments presented by a single source, but, when the arguments were unconvincing, exposure to multiple sources led to *less* persuasion than that resulting from exposure to a single source. In the latter case, the enhanced thought induced by multiple sources led to greater counterargument production.

The present research represents a further test of this processing interpretation of the effects of number of sources on attitude change. Petty, Wells, and Brock (1976) have shown that when a distractor accompanies exposure to an attitudinal message, it interferes with information processing, leading to a disruption of the typical cognitive responses elicited by the message. Thus, for example, a message that would normally elicit predominantly favorable thoughts elicits fewer under distraction conditions, and diminished persuasion results. If additional processing is taking place in the multiple-source/multiple-argument condition, distraction should lead to greater interference in this condition than in the other cells in which less processing is taking place. This interference should lead to a reduction in the amount of persuasion exhibited in

the multiple-source/multiple-argument cell relative to the others. To test this notion we replicated three conditions of the Harkins and Petty (1981) study: multiple-source /multiple-arguments; multiple-source /single-argument; and single-source/multiple arguments. Other subjects were run in the same conditions but also performed a distraction task, which served as the thought disrupter.

METHOD

Ninety male and female subjects were randomly assigned to one of six cells in a 2 (one task vs. two task) × 3 (multiple-source/multiple-argument; multiple-source/single argument; single-source/multiple-argument) factorial and were run individually.

All of the subjects were informed that the Psychology Department was cooperating with a faculty committee in an attempt to measure student opinion concerning Senior Comprehensive Exams, a test that all seniors would have to pass prior to graduation to demonstrate competency in both the general skills that any college graduate should possess, and the specific skills required by the particular major. The subjects were further informed that as one means of measuring student opinion, several students were to come in and be videotaped giving their views. So far, three students had come in, each of whom had given three thoughts on the topic, and it turned out that each student supported the idea. The subjects were told that they would be shown a randomly selected portion of the videotape that these students had made, after which they would be asked to give their own views on the topic.

All of the subjects were then given a note which stated that a Mr. Brown was interesting in pretesting an experimental task for use later in the quarter, and Dr. Harkins had given him permission to try it on these students. Problems would be flashed on the wall next to the videotape monitor. These problems would consist of addition problems such as eight plus six = x. However, rather than doing the arithmetic, the subjects' task was to add the letters in the number words. The subjects were given several example problems. It was emphasized that their primary task was to watch the videotape. The secondary task was just being pilot tested, so it was not important to solve many of the problems. Only if they had time (for example, as the tape started, between segments, or at the end of the tape) were they to attempt any number word problems. They were to note down the problem number given in the upper left hand corner of the slide, as well as their answer, for any problems they tried. After the subjects read the note, the experimenter emphasized that attending to the tape was the primary task, and, as a matter of fact, he did not care if they did any problems at all.

The experimenter then told the subjects that he was going to get Mr. Brown so that he could show his slides. The experimenter returned in a few minutes and, if the subjects were in the one-task condition, said that Mr. Brown was not to be found and that the subject would not take part in the number-word task after all.

In the two-task condition, the experimenter said that he could not locate Mr. Brown and so he would show the slides himself.

Each of the subjects was then shown a segment of videotape consisting of: one person giving three arguments in favor of Senior Comprehensives; three persons giving three arguments; or three persons giving one argument. The segments were made from a master tape consisting of three males each giving elaborations of the following three arguments in favor of the exams: The quality of education would be improved; the prestige of the university would be enhanced; and graduates would be placed in better paying jobs. Although each source made each of the three arguments, each source's version of the argument was slightly different. The nine messages (three arguments in their three versions) were pretested and found to be equally persuasive. In previous research (Harkins & Petty, 1981; Petty, Harkins, & Williams, 1980) we have shown that without exposure to the background information or persuasive arguments, students are opposed to the comprehensive exam proposal, but that exposure to the arguments employed in the present study leads to the generation of primarily *favorable* thoughts.

The experimental tape was assembled by first randomly determining which of the three conditions would be run. If the one-source/three-argument condition was selected, the speaker who presented the arguments was randomly selected, as was the order in which the arguments were presented. If the three-source/one-argument condition was selected, the argument, as well as the order of speakers, was randomly determined. If the three-source/three-argument condition was selected, the order of the speakers and the pairing of person and argument, were randomly chosen. Each argument took approximately 15 seconds with approximately five seconds between speaker or argument. Each subject saw a different segment constructed in this way.

In the two-task conditions, the slide projector was turned on five seconds before the videotape, and each word problem was shown for four seconds. The projector was turned off five seconds after the video segment ended.

The subjects then responded to two measures of attitude: an 11-point scale asking "To what extent do you agree with the Faculty Committee's proposal requiring seniors to take a comprehensive exam before graduating?" and a series of 4 nine-point semantic differentials: good/bad; beneficial/harmful; foolish/wise; and favorable/unfavorable. For analysis, their responses on the 11-point scale were standardized and averaged with the summed and standardized responses to the semantic differentials.

Subjects were then given 2-1/2 minutes to list their thoughts about Senior Comprehensives, after which they were instructed to go back and rate their thoughts as "+" (favorable toward Senior Comprehensives), "0" (neutral), or "–" (unfavorable) (see Petty & Cacioppo, 1977).

The subjects were given as much time as they wished to recall the arguments used in the segment of videotape that they saw. Two judges scored recall and they agreed in 98% of the cases. A third judge resolved the discrepancies in those cases where the judges did not agree.

Subjects also indicated the number of good arguments that they thought there were in favor of the proposal by circling one of nine categories ranging from "0-1" to "16 or more," and the percentage of their classmates they thought would support the proposal.

Subjects in the two-task condition indicated what portion of their attention they devoted to watching the number word test, the difficulty of the number word problems, and the extent to which the secondary task was distracting.

RESULTS

Number Word Problems

There were slight variations in the lengths of the segments, and, so, there were also slight differences in the number of distraction problems shown. However, these differences were not reliable as a function of condition, $p > .20$. The participants saw an average of 17 slides. There were no differences in the number of problems correctly solved, overall $M = 7.3$, $p > .20$. The two-task subjects also exhibited no differences in their estimates of the portion of their attention they devoted to the secondary task, the extent to which they found the task distracting, or the difficulty of the number word task.

Thought Listing

Replicating Harkins and Petty (1981) in the one-task condition, multiple-source/multiple-argument subjects generated more favorable thoughts, $M = 5.3$, than participants in the multiple-source/single-arguments, $M = 3.1$, or the single-source/multiple-argument conditions, $M = 2.2$, $ps < .05$ (Tukey HSD, Kirk, 1968). However, as predicted, the distraction task, though not affecting favorable thought production in the multiple-source/single-argument, $M = 2.8$, or single-source/multiple-argument cells, $M = 3.6$, $ps > 20$, did lead to reduced production of favorable thoughts in the multiple-source/multiple-argument condition, $M = 2.1$, $p < .05$. In fact, in the distraction conditions multiple-source/multiple argument subjects generated no more favorable thoughts than subjects in the multiple-source/single-argument or single-source/multiple-arguments condition, $ps > .20$. This pattern of means yielded a significant interaction, $F(2,84) = 9.79$, $p < .05$.

There were no reliable differences in the number of unfavorable, neutral, or total thoughts generated by the subjects.

Attitude Measure

Analysis of the attitude measure revealed a similar pattern of results. Again replicating Harkins and Petty (1981), in the one-task condition the multiple-source/multiple-argument subjects were more persuaded, $M = .88$, than participants in the multiple-source/single-argument, $M = -.15$, or the single-source/multiple-argument conditions, $M = -.46$, $ps < .05$. Distraction, though not affecting attitudes in the multiple-source/single-argument or single-source/

multiple-argument conditions, M = –.3 and M = .11, respectively, ps $>$ .20, did lead to less favorable attitudes in the multiple-speaker/multiple-argument condition, M = –.10, $p < .05$. In fact, when distraction was present, seeing multiple sources present multiple arguments led to no more persuasion than that achieved in any other conditions, ps $>$ .20. This pattern of means resulted in a significant interaction $F(2,84) = 5.7$, $p < .05$.

Recall

Two-task subjects did not differ reliably from single-task subjects in the proportion of arguments recalled correctly, $p > .20$. Subjects exposed to single sources presenting multiple arguments recalled 71% of the arguments when performing the single task and 67% under two-task conditions. The comparable percentages for the multiple-source/single-argument conditions were 93% and 87%, and for the multiple-source/multiple-argument conditions, 71% and 60%. A direct contrast of the one- and two-task multiple-source/multiple-arguments conditions yielded no reliable difference, $F(1,84) = .98$, $p > .20$.

Of course, subjects exposed to multiple arguments presented by multiple sources or a single source recalled a smaller proportion of the arguments, M multiple source = 65%, M single source = 69%, than subjects exposed to a single argument, M = 90%, $F(2,84) = 5.70$, $p < .05$.

Ancillary Measures

There were no differences in the number of good arguments the participants thought there were in favor of Senior Comprehensives (overall M = 7.1) nor in the percentage of their classmates they thought would support the proposal (overall M = 52%).

DISCUSSION

Consistent with our earlier study (Harkins & Petty, 1981), we found that multiple-source/multiple-argument subjects produced more favorable thoughts and were more persuaded than either subjects exposed to multiple arguments presented by a single source, or to multiple sources presenting a single argument. However, a new finding was that, when a secondary distraction task accompanied presentation of the message, this persuasive advantage disappeared. Multiple-source/multiple-argument subjects generated no more favorable thoughts and were no more persuaded than subjects in the other conditions.

This finding does not appear to be the result of the distractor simply inhibiting all processing. Multiple-source/single-argument and single-source/multiple-argument subjects were as persuaded in the two-task condition as in the one. There were no differences between one-and two-task subjects in recall, in the number of good arguments they thought existed in favor of Senior Comprehensives, nor in the percentage of their classmates they thought would support the proposal. So, it appears that it is not that all processing ceased upon exposure to the distractor; rather, the *additional* idiosyncratic elaboration of the

cogent arguments presented, which is normally elicited by exposure to multiple sources presenting multiple arguments, was not possible given the requirements of the secondary task.

Although a counterattitudinal advocacy was used in the present research, there is no reason to believe that a different process would be engaged by a proattitudinal advocacy. In other research testing a processing approach to attitude change, pro- as well as counterattitudinal advocacies have been used (see Petty, Wells, & Brock, 1976), and the results have been consistent with the notion that the same process is at work regardless of the attitude position advocated. The crucial variable guiding thinking is the cogency of the message arguments presented.

The present results suggest that exposure to multiple sources presenting multiple arguments has effects beyond those predictable from previous research on number of arguments (Insko, Lind, & LaTour, 1976; Calder, Insko, & Yandell, 1974) or number of sources (White, 1975) and these effects are the result of the additional processing elicited by exposure to the combination of different sources and different arguments. The present experiment indicates that number of speakers in conjunction with number of arguments can play an important role in persuasion and suggests that further interest in the number of sources variable is warranted.

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NOTE

[1]This may seem inconsistent with previous research which would suggest that increasing the number of arguments (Insko, Lind, & LaTour, 1976; Calder, Insko, & Yandell, 1974), and argument repetition (Cacioppo & Petty, 1979; Harrison, 1977) should lead to enhanced persuasion. However, there are differences in methodologies that may account for these seeming inconsistencies. Our subjects, unlike those in the previous research, were all informed about the number of arguments to which they might be exposed. Also, our arguments were simple, one-sentence statements. Had we used more complex stimuli, as have previous researchers, argument repetition might have led to enhanced persuasions, as new implications of the complex arguments became apparent.

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