Knowledge of the Advocated Position and the Processing of In-Group and Out-Group Persuasive Messages

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This study investigated the processing consequences of receiving non-membership-relevant persuasive messages from in-group or out-group members. Students were given two-sided messages ostensibly from an in-group or out-group source. The position advocated in the message was announced either before or after message arguments were presented, and position-consistent arguments were either strong or weak. In-group messages were more likely to receive content-focused processing (as indicated by longer processing times and differential persuasion to strong and weak arguments) when position advocacy followed rather than preceded message presentation. Prior knowledge of the in-group position produced acceptance of the in-group position regardless of message quality, particularly of the counterattitudinal message. Out-group appeals produced almost no attitude change, even with strong arguments. These results provide further information about the processing mediation of the increased persuasive power of in-groups.

It has long been known that our relations to those with whom we share group membership have tremendous impact on how we construct or define our social reality (Deutsch & Gerard, 1955; Festinger, 1950; Kelman, 1961; Turner, 1982). For example, in-group attitudes are more influential than the attitudes of members of groups to which we do not belong (Clark & Maass, 1988a, 1988b; Hogg & Turner, 1987; Mackie, 1986; Mackie, Worth, & Asuncion, 1990; Turner, Wetherell, & Hogg, in press). Surprisingly little is known, however, about the cognitive and motivational mediators of the in-group's persuasive advantage.

Traditionally, explanations of in-group persuasiveness have focused on the normative pressures for compliance with, rather than true acceptance of, in-group appeals (Asch, 1951; Deutsch & Gerard, 1955; Kelman, 1961). However, there is also evidence that persuasive appeals from the in-group often result in private acceptance (Allen, 1965; Clark & Maass, 1988a, 1988b; Insko, Smith, Alickie, Wade, & Taylor, 1985; Mackie et al., 1990; Puckett, Petty, Cacioppo, & Fisher, 1983), and attention has recently turned to determining processing mediators of the private acceptance produced by in-group sources.

Recent information-processing models of persuasion (e.g., Chaiken, 1987; Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986; see also Kelman, 1961) distinguish between different processing paths that could mediate privately accepted attitude change brought about by an in-group source. Recipients might assess message validity with little effort, using the presence or absence of relevant heuristic cues (such as source characteristics associated with message validity); or subjects' acceptance of an advocacy might be mediated by a more capacity-demanding scrutiny of message content. Whereas heuristic strategies produce attitude change with little content elaboration and little differentiation between valid and invalid arguments, systematic, or central route, processing is typically marked by extensive content elaboration.

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tion and greater persuasion by strong than by weak arguments. Given the capacity-demanding nature of content-focused processing of the message, increased systematic processing is associated with increased motivation (Chaiken, 1987; Petty & Cacioppo, 1986).

Receiving a message from an in-group source could produce internalized attitude change by means of either of these processing strategies. First, the presence of an in-group source could serve as a heuristic cue to the validity and appropriateness of the advocated position (Turner, 1987). In this way, in-group membership of the source can operate as a validity heuristic in much the same way that expert sources, audiences expressing consensus, and the presence of multiple arguments do (Chaiken, 1987). However, in-group sources presumably have this power only to the extent that message recipients identify as group members (Kelman, 1961; Turner, 1987). Thus, the in-group heuristic defines valid attitudinal positions because identification has taken place: Wanting to be correct (Deutsch & Gerard, 1955; Petty & Cacioppo, 1986) and wanting to maintain relationships (Kelman, 1961) are indistinguishable (Turner, 1987). If in-group status operates as a heuristic cue, we might expect reduced attention to message content and the adoption of the in-group's advocated position regardless of message quality (that is, both strong and weak arguments will produce attitude change).

However, there are many reasons to believe that receiving a message from an in-group source might promote increased scrutiny and processing of message content. For example, sharing category membership with the source may increase the potential relevance of any presented material (Festinger, 1950; Heider, 1958; Turner, 1982, 1987). If the material is relevant to group membership (i.e., an issue that is definitional of group membership, such as attitude toward social welfare for liberals, or one that has implications for the group, such as the introduction of comprehensive exams for college students), interest and involvement may be especially high. If involvement increases scrutiny of the message content, increased differentiation of strong and weak arguments might be expected.

Under what conditions is in-group membership of a source likely to promote heuristic message processing, and when can increased systematic processing be expected? Clearly, when processing capacity is reduced, message recipients are more likely to rely on heuristic processing (Chaiken, 1987; Petty & Cacioppo, 1986). When capacity is adequate, however, the likelihood of systematic processing increases with motivation. Involvement is probably maximal when an in-group source advocates a position on an issue directly relevant to group membership. Although presence of an in-group source might itself be involving, receiving in-group messages about nondefinitional issues might be less involving and thus less likely to spontaneously initiate systematic processing.

Evidence of the importance of this distinction was provided by Mackie et al. (1990). Subjects listened to in-group and out-group messages about issues that varied in their relevance to group membership. When the issue was relevant to the in-group, subjects were persuaded by strong arguments and were unimpressed by weak ones, indicating that the message was receiving content-focused processing. When the message was irrelevant to the in-group, however, subjects tended to accept the position advocated by the in-group regardless of message quality. Interpretation of this latter finding was necessarily speculative, however, because issues that were relevant to the in-group were irrelevant to the out-group, and vice versa. Thus, issue relevance (which was a within-subjects factor) covaried with in-group and out-group status simultaneously.

In order to avoid attitudinal issues that were group definitional and therefore of more relevance to one group than to the other, we focused in the present study on issues of general importance not linked to group membership. We intended these issues to allow a better test of whether persuasion produced by an in-group source was routinely mediated by use of heuristics or by spontaneous systematic processing, even if the issue had no inherent group relevance. To evaluate these ideas, we varied the possibility that a group membership heuristic could be used. Subjects received messages delivered by either an in-group member or an out-group member. Although the membership of the source was always known before message presentation, the position advocated in the message was announced before message arguments in only half the conditions. In these cases, both the source’s membership and the source’s position were clear, and the advocacy could be accepted without further message processing. However, when the advocated position was not presented early on, careful message processing was necessary to ascertain the source’s position, as the message contained arguments on both sides of the issue. Subjects’ attitudes and the amount of time they looked at each argument before proceeding to the next were measured to assess the extent of content-focused processing.

If in-group messages spontaneously receive systematic processing, message content should determine persuasion in the in-group condition regardless of when the advocated position is announced. If in-group messages are processed heuristically, however, the timing of the advocated position was expected to have a significant impact. When a group membership heuristic could be
used, we expected acceptance of the in-group position regardless of message quality. When announcement of the advocated position was delayed and heuristic use was not immediately available, we expected greater involvement with in-group messages to increase the amount of effort subjects expended to ascertain the in-group position. In these conditions, we expected to find increased processing times for the message arguments.

METHOD

Subjects and Design

The subjects were 102 male and female University of California, Santa Barbara (UCSB), undergraduates who participated in the study to partially fulfill course requirements. Subjects were randomly assigned to the cells of a 2 (Source: in-group or out-group) × 2 (Timing of Advocated Position: preceding or following the message) × 2 (Quality of Position-Congruent Arguments: strong or weak) × 2 (Issue: handgun control or euthanasia) mixed factorial design with repeated measures on the last factor.

Stimulus Materials

Two two-sided six-argument messages were prepared for each issue. Arguments were selected for inclusion on the basis of strength ratings by subjects not involved in the study. In one message, three strong arguments supporting the issue and three weak arguments opposing the issue were combined. The other message comprised three strong arguments opposing the issue and three weak arguments supporting the issue. An example of a strong pro-euthanasia argument was "As long as the decision to die is made while the patient is fully conscious and has thought about it fully, then we should respect his or her choice to die." An example of a weak argument opposing handgun control was "Making handguns illegal would outlaw the hobby of collecting guns as finely crafted pieces of artwork which reflect the skill of handgun artistry."

Procedure

Subjects first completed an 18-item attitude questionnaire that included 2 key items. Subjects checked 9-point scales (high scores indicated agreement) to indicate their initial attitude on the issues: "Euthanasia, the right to request a painless death for reasons of mercy, should be legalized and made available to those who desire it" and "Possession of handguns should not be limited to law enforcement agencies. All adults should be allowed to possess handguns." Subjects favored legalization of euthanasia and opposed generalized handgun possession. Both issues were regarded as moderately but not highly important, $M$ (handgun) = 5.65 and $M$ (euthanasia) = 5.76 (where 9 = extremely important).

After completing an unrelated 15-min filler task, subjects were seated in front of visually isolated IBM-PC/XT computers, which presented all further instructions and materials. Subjects read that, as part of a bigger project, an opinion poll was being conducted among students at two universities: UCSB and the University of Manitoba, Canada. As part of this effort, subjects were being asked to express arguments and opinions supporting and opposing various issues. Subjects were told that they would see the opinions and arguments of a student who had already participated in the study, in order to familiarize themselves with their upcoming task.

Subjects then saw the code number and university affiliation (apparently generated at random by the computer) of an ostensible other student who had expressed his or her opinion earlier in the study. Half the subjects were presented with the opinions of an in-group source (a UCSB student), whereas the other half saw arguments from an out-group source (a University of Manitoba student). Half the subjects then saw a statement in support of one of the two key issues, followed by the six message arguments presented one at a time. The rest of the subjects saw the message arguments followed by the source's position. This position statement, identical regardless of whether it followed or preceded message arguments, simply took the form of the source's stating: "I agree that . . . ." and repeating the wording of the key attitude item. As subjects' initial attitudes on the two issues differed, the position advocated in the pro-euthanasia message was proattitudinal, whereas the position presented in the pro-handgun possession message was countertitudinal.1

The order in which the three supportive and three opposing arguments was presented varied according to one of six random sequences. Half the subjects read messages comprising strong position-congruent and weak incongruent arguments, whereas the other half read strong position-incongruent and weak congruent arguments. Subjects pressed the spacebar after reading each statement to initiate presentation of the next argument. Subjects read about and responded to one issue before reading about and responding to the other issue. The order of presentation of the issues was counterbalanced.

Dependent Measures

The amount of time subjects looked at each argument was recorded automatically. After reading the arguments, subjects indicated their agreement with the relevant attitude statement (presented automatically) by pressing a number from 1 to 9 on the keyboard (high scores indicated agreement). Subjects were then given 5 min in
which to write on a blank sheet of paper any and all thoughts, responses, and reactions (including ones completely unrelated to the message) that they had while reading about the other student’s opinion. They were then asked to list any arguments they recalled from the message and to indicate the college affiliation of the source. Finally, subjects were shown each argument they had seen and rated how strong or weak an argument it was for the advocated position. High ratings (of a possible 9) indicated argument strength.

RESULTS

Manipulation Checks

Eleven (10.8%) of the 102 subjects (roughly distributed across conditions) did not correctly identify the sources of both messages, and their responses were excluded from further analyses. Subjects looked marginally longer at the information about source group membership when the source was an in-group (M = 6.78 s) rather than an out-group (M = 6.04 s) member, F(1, 75) = 3.42, p < .07. Subjects exposed to strong position-congruent messages perceived the congruent arguments to be stronger (M = 6.79) than the incongruent arguments (M = 3.57), whereas subjects exposed to weak position-congruent messages perceived the congruent arguments to be weaker (M = 3.78) than the incongruent ones (M = 6.23), F(1, 75) = 128.90, p < .0001. Euthanasia arguments were judged weaker (M = 4.90) than handgun arguments (M = 5.31), F(1, 75) = 11.89, p < .0009.

Attitude Change

Subjects’ postexposure attitudes on the two key issues were subtracted from their initial attitudes so that positive scores indicated acceptance of the advocated position. These scores were subjected to a 2 (Source: in-group or out-group) × 2 (Timing of Advocated Position: preceding or following the message) × 2 (Quality of Position-Congruent Arguments: strong or weak) × 2 (Order of Issue Presentation) × 2 (Issue: handgun control or euthanasia) analysis of variance (ANOVA) with repeated measures on the last factor. This analysis revealed a significant effect of argument quality on attitude change, F(1, 75) = 4.52, p < .04, qualified by a three-way interaction, F(1, 75) = 5.60, p < .02, involving the source, position timing, and argument quality. The means associated with this interaction appear in Table 1. To clarify the nature of the interaction, separate analyses were performed on conditions in which the advocated position preceded and followed message arguments.

Table 1: Change in Attitudes Toward Euthanasia and Gun Control as a Function of Source, Timing of Position Information, and Quality of Position-Congruent Arguments

<table>
<thead>
<tr>
<th>Source</th>
<th>Quality of Arguments</th>
<th>Euthanasia</th>
<th>Gun Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-group</td>
<td>Strong</td>
<td>0.06</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>0.30</td>
<td>1.10</td>
</tr>
<tr>
<td>Out-group</td>
<td>Strong</td>
<td>0.50</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>-0.09</td>
<td>-0.91</td>
</tr>
<tr>
<td>In-group</td>
<td>Strong</td>
<td>0.76</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>-1.31</td>
<td>-0.62</td>
</tr>
<tr>
<td>Out-group</td>
<td>Strong</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Weak</td>
<td>0.12</td>
<td>0.13</td>
</tr>
</tbody>
</table>

NOTE: Change toward the advocated position is reflected in positive scores.

ADVOCATED POSITION FOLLOWING MESSAGE ARGUMENTS. When position announcements were delayed until after message presentation, we expected arguments from the in-group source to be processed more thoroughly than arguments from the out-group source. In fact, the quality of the arguments influenced attitude change when the advocated position followed the arguments, F(1, 36) = 7.27, p < .01, but this effect depended on the group membership of the source, F(1, 36) = 5.41, p < .03. As can be seen in Table 1, strong and weak arguments resulted in differential attitude change when presented by in-group members, F(1, 22) = 14.87, p < .001, but not when presented by out-group members, F(1, 1) = 1.

Argument Processing Time

The time subjects read each argument before moving to the next was recorded. For each issue, these processing times were averaged across the three supportive and the three opposing arguments, resulting in four processing-
time scores for each subject. As expected, analyses of these scores revealed a significant interaction between the source of the message and the timing of information about the advocated position, \( F(1, 75) = 11.86, p < .001 \). When the advocated position was announced prior to the message, in-group arguments tended to be processed more rapidly (\( M = 7.25 \) s) than out-group arguments (\( M = 8.08 \) s), \( F(1, 59) = 3.65, p < .06 \). When announcement of the advocated position was delayed, in-group arguments were processed much longer (\( M = 9.15 \) s) than out-group arguments (\( M = 6.98 \) s), \( F(1, 36) = 7.99, p < .008 \).

The time subjects looked at the source’s position statement was also recorded. Statements about the in-group advocated position were processed marginally longer (\( M = 16.16 \) s) than statements from the out-group (\( M = 14.19 \) s), \( F(1, 75) = 2.97, p < .09 \). In addition, statements that followed (\( M = 16.55 \) s) rather than preceded (\( M = 14.16 \) s) the message were looked at longer, \( F(1, 75) = 4.37, p < .04 \).

**Recall and Cognitive Response Measures**

Recall was coded as accurate according to a lenient “gist” criterion. Cognitive responses were coded as strict recall, positive or negative elaborations of message or issue content, and positive or negative statements about the source by two independent coders who agreed on 86% of responses (disagreements were resolved by discussion). Analysis of recall and cognitive response measures revealed only two findings relevant to the hypotheses. First, there was no evidence of decreased recall or cognitive response production in the in-group/before condition, which might have been expected to accompany heuristic processing. Second, subjects recalled more position-congruent than position-incongruent arguments from in-group messages but not from out-group messages, \( F(1, 75) = 6.49, p < .01 \). Recall of in-group position-congruent arguments was particularly high in the before, \( F(1, 22) = 6.66, p < .02 \), compared with the after, \( F(1, 22) < 1 \), n.s., condition, although the interaction did not reach significance, \( F(1, 44) = 2.18, p < .15 \).

**DISCUSSION**

Our concern in the present study was the processing mediators of acceptance of in-group messages about issues that were not group definitional. If in-group messages routinely receive systematic processing, we expected to find message content dominating attitude responses regardless of whether the position advocated was known. However, if in-group source status operates as a heuristic cue, we expected knowledge of the position being advocated to have considerable impact. Our results are consistent with this latter alternative.

When the in-group’s position on the issue was made clear, use of a source heuristic was expected to produce acceptance of in-group messages with relatively little content-focused processing. Consistent with this expectation, attitude change toward the in-group’s position occurred regardless of message quality when subjects knew the advocated position prior to message processing. This change was significant only when the issue was counterattitudinal but may have been hampered by ceiling or assimilation effects on the proattitudinal issue. Subjects also spent marginally less time processing arguments in this condition. These indexes suggest that in-group support on the issue functioned as a heuristic cue to message validity.

However, recall and cognitive response production were not reduced as might be expected if attitude change had been based on heuristic processing. In particular, attitude-congruent arguments were recalled well. This leaves open several possibilities. First, differential processing of the position-congruent arguments could have occurred. However, the reading-time measure provided no evidence that congruent and incongruent arguments were treated differently in this condition. A second possibility is that processing and acceptance of the position-congruent arguments were made easier because the group’s position was already known. Note, however, that it was only announcement of the in-group’s position, not the out-group’s position, that apparently conferred this processing advantage. A third possibility is that the recall and cognitive response results reflect the occurrence of superficial and selective processing performed to corroborate or validate the persuasive cue (Bodenhausen, 1988; Mackie & Asuncion, 1990). The presence of the in-group cue might produce heuristic change accompanied by relatively shallow and uncritical encoding, especially of supportive arguments.

In contrast, when subjects were unaware of the position advocated by the source, they invested considerable effort in trying to find out the in-group’s, but not the out-group’s, position. Message-processing times indicated that subjects in the in-group/after condition engaged in more extensive processing of message content than subjects in any other condition, presumably to discern the position advocated by the in-group source. This extra attention given in-group messages increased the impact of message quality on attitudinal responses. When position information was withheld, differentially positive cognitive responses and attitude change toward the in-group position occurred only when the arguments supporting that position were valid. Note that when weak evidence was presented, this extensive processing meant that the in-group’s position was rejected, rather than accepted.
Messages from the out-group appeared to receive very little processing and resulted in no significant attitude change. Apparently, messages from the kind of out-group used in this study (more properly, a nonmember-ship group) attracted little processing effort. Messages from a hostile or competitive out-group, especially about in-group-relevant issues, would presumably attract increased attention (Mackie et al., 1990).

We used message-reading times as an on-line indicator of content-focused processing to complement interpretation of the attitude change results. Although reading times are often difficult to interpret alone, their use with attitude change, recall, and cognitive response measures provides converging evidence for various processing routes to persuasion. Distinguishing these different routes was also the goal of our manipulating the difficulty of using a heuristic cue (rather than the presence or absence of the heuristic cue itself). This design enabled us to document both heuristic processing of in-group messages when cue use was possible and the extra attention allocated to in-group messages when it was not.

Our results provide further information about the conditions that produce private acceptance of in-group and out-group positions through heuristic and systematic processing. When issues are not definitional of group membership, in-group positions appear to be accepted in a heuristic fashion. The present results thus confirm earlier findings (Mackie et al., 1990) with truly non-definitional issues. When the in-group’s views are not easily discernible, however, increased effort is allocated to processing the message content in order to establish the in-group position, even on issues that are not group definitional. This increased processing heightens the impact of message content on attitude change. This increased processing of message content has been found to increase the longevity and resistance of any resulting attitude change (Chaiken, 1980; Petty & Cacioppo, 1986), providing another processing mechanism by which even nondefinitional in-group positions may become well entrenched.

Our results complement findings that group-definitional messages from in-groups spontaneously receive extensive content-focused processing (Mackie et al., 1990). The likelihood that content-focused processing will be used to augment heuristic use thus appears to increase as relevance to important social identities increases. As such relevance increases, systematic processing is likely to supplement heuristic processing to attain a required level of judgmental confidence (Chaiken et al., 1989). Our results thus provide further evidence for the information-processing mediators of the often powerful and lasting effects of group-induced persuasion.

NOTES

1. The pro- and counterattitudinal position of the message was thus conflated with the (euthanasia and gun control) content of the message. Because our hypotheses focused on interactions between source status and when the advocated position was announced, however, comparisons could be made within each level of the message factor if necessary.

2. Analysis of subjects’ initial attitudes revealed the expected main effect for issue, F(1, 75) = 86.12, p < .001, indicating support on the euthanasia but not the handgun issue, and a higher-level interaction involving all the factors, F(1, 75) = 4.07, p < .05, which subsumed two other higher-level interactions. Because further analysis indicated that initial attitudes on the euthanasia issue were not randomly distributed across conditions, the analysis was repeated on residual attitude scores that remained after pretest attitudes were used to predict posttest attitudes for each attitude issue. This analysis revealed identical results even when initial attitudes were controlled: a significant main effect for argument quality, F(1, 75) = 5.00, p < .05, qualified by the predicted three-way interaction of the source, timing, and argument strength factors, F(1, 75) = 6.50, p < .01. It was therefore unlikely that initial differences provided an explanation of our results.

3. The in-group counterattitudinal message produced more change (M = 0.58) than other messages (M = -0.06, 0.15, and -0.18 for in-group pro-, out-group pro-, and out-group counterattitudinal messages, respectively), F(1, 75) = 3.75, p < .05. There was also an uninterpretable interaction involving all five factors, F(1, 75) = 5.77, p < .02.

4. Subjects looked longer at arguments about the second (M = 8.59 s) than the first issue (M = 7.27 s), F(1, 75) = 15.37, p < .005. Subjects also looked longer at position-incongruent (M = 8.28 s) than at congruent (M = 7.58 s) arguments, F(1, 75) = 8.42, p < .005. There was also an uninterpretable interaction involving all five factors, F(1, 75) = 5.94, p < .02.

5. More arguments from strong than from weak in-group messages, and more arguments from weak than from strong out-group messages, were recalled, F(1, 75) = 4.36, p < .04. Subjects recalled more about the second (M = 1.92) than the first (M = 1.73) issue, F(1, 75) = 7.09, p < .009. Subjects were more likely to recall arguments that were inconsistent with their initial attitudes, F(1, 75) = 20.62, p < .001, but only if position-congruent arguments were strong, F(1, 75) = 12.50, p < .0007.

Because of the two-sided messages, it was generally impossible to code the cognitive responses as reactions to position-congruent or position-incongruent arguments. More positive than negative responses were produced, and more so for strong than for weak messages, F(1, 75) = 10.61, p < .002. The expected qualification of this effect by the source and timing variables did not reach significance, F(1, 75) = 1.91, p < .18. As expected, however, cognitive response valence was determined by argument strength in the in-group/after condition, F(1, 22) = 10.81, p < .003, but not in any other condition, all ps > .24. More positive than negative responses were made to proattitudinal messages, and more negative than positive responses were made to counterattitudinal messages, F(1, 75) = 24.29, p < .0001. Out-group counterattitudinal messages produced more responses than any other kind of message, F(1, 75) = 5.09, p < .05.

REFERENCES


