A Comparison of the Effects of Punishment-Oriented and Reward-Oriented Messages in Persuasive Communication

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Abstract

The effects of reward-oriented (pleasure) and punishment-oriented (fear) appeals were examined in conjunction with initial credibility on attitude change and terminal credibility. Ss were exposed to either a reward-oriented or a punishment-oriented message by either a high-credible or low-credible source. Reward and punishment appeals did not differentially affect either attitude change or perceived credibility. Both types of appeals produced substantial attitude change when presented by a high-credible source, neither produced significant change when presented by a low-credible source.

In conjunction with their general concern for language variables in communication, researchers of the past decade have continued to be fascinated by the impact of fear-arousing appeals. Since Janis and Feshbach's initial study [4], various communication scholars have tested the early finding that strong fear appeals are less effective than mild fear appeals in eliciting desired responses from an audience. When Miller [6] summarized fear appeal studies in 1963, his analysis supported Janis and Feshbach's original finding. When the additional dimension of source credi-

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bility was added to later fear-appeal studies, the effects of mild appeals on attitude change appeared to be different. Miller and Hewgill [7] found, for example, that strong fear-arousing appeals produced more attitude change than mild fear appeals from a high-credible source; whereas, there appeared to be no significant differences between strong and mild fear appeals from a low-credible source. An unattributed source was added to the high- and low-credible conditions in a study reported by Powell and Miller [9]. Three versions of a message were utilized-low fear (social approval), high fear (social disapproval), and neutral (no approval or disapproval). High-credible and unattributed sources produced similar attitude change effects: social disapproval (punishment-oriented) cues were more effective than social approval (reward-oriented) cues. Both high and low fear appeals produced more attitude change than the neutral message. In the low-credible condition the most attitude change was affected by the neutral cues; the approval and disapproval cues produced less attitude change but did not differ significantly from each other.

Wenburg [10] investigated the relationships among audience adaptation, source credibility and types of message cues. He tested reward-punishment cues for the amount of anxiety produced by the messages and found that punishment cues produced significantly more anxiety than reward cues, but had no differential effect on attitude change or the authoritativeness or character dimensions of credibility.

Rationale

With the exception of a very few studies, research on types of appeals has concentrated on fear-arousing appeals. As Cronkhite [3] has suggested, more research needs to be done concerning non-fear appeals. An examination of the types of messages commonly employed in the fear-appeals research indicates that usually they are clearly punishment-oriented, i.e. they discuss the harmful effects that will occur if the receiver does not comply with the source's recommendations. Numerous studies in the area of learning [2] have led to the conclusion that punishment is less useful in producing desired responses than is reward. This led the present writers to question whether the reciprocal of fear appeals, "pleasure" appeals, might be more effective in producing

attitude change than are fear appeals themselves. In short, are there circumstances where "reward-oriented" appeals produce more desired change than do "punishment-oriented" appeals?

This question is impossible to answer on the basis of previous research. Research on learning suggests that reward-oriented appeals may be generally superior to punishment-oriented appeals. But the results of the only two studies in persuasive communication which can be conceived as directly bearing on this question provide no support for such speculation; Powell and Miller [9] found the exact opposite, Wenburg [10] observed no significant difference.

Several of the consistency theories relating to attitude change provide a basis for hypothesizing a possible interaction between initial source credibility and type of message appeal. Briefly stated, these theories suggest that when a receiver is induced into a state of inconsistency by a persuasive message, he tends to alter his perceptions in order to regain a consistent state. He may change his attitude on the topic, he may change his attitude toward the persuader, he may do both, or he may use a variety of means other than attitude change, sometimes referred to as "leaving the field." Further, if very little inconsistency is generated, the individual may "assimilate" the views of the persuader with little or no resulting attitude change; but if considerable inconsistency is generated, the individual is likely to "contrast" the views of the persuader, see them as extreme, derogate the persuader, and alter attitude on the topic little or not at all. Thus, there appears to be a non-linear relationship between the amount of inconsistency induced in the receiver and the amount of attitude change produced in him [11]. Little inconsistency produces little change, moderate inconsistency produces maximum change, great inconsistency produces little change but tends to produce communicator derogation. If we presume that a punishment-oriented message produces more anxiety in the receiver than a rewardoriented message, as seems reasonable considering Wenburg's [10] findings, and that the level of anxiety produced is directly related to the amount of inconsistency created, we may hypothesize that punishment-oriented messages produce more inconsistency than reward-oriented messages do. Whether this increased inconsistency should be expected to produce more attitude change

would depend, at least in part, on the perceived credibility of the communication source. High inconsistency produced by a lowcredible source could be expected to result in contrast effects, little attitude change, and derogation of the communicator. On the other hand, when inconsistency is induced by a high-credible source, communicator derogation should be more difficult for the receiver and, thus, greater attitude change might be forthcoming. However, in any case, a reward-oriented message should be more attractive to a receiver than a punishment-oriented message, and the result should be higher credibility ratings for the source using the reward-oriented message. This rationale led to the following hypotheses.

Hypotheses

1. A high-credible source employing a punishment-oriented (fear appeal) message will produce more attitude change than a high-credible source employing a reward-oriented (pleasure appeal) message.

2. A low-credible source employing a reward-oriented (pleasure appeal) message will produce more attitude change than a low-credible source employing a punishment-oriented (fear appeal) message.

3. A source employing a reward-oriented (pleasure appeal) message will be perceived as more credible than a source employing a punishment-oriented (fear appeal) message.

The essence of the above hypotheses is to suggest that a lowcredible source should use pleasure appeals in order to enhance his credibility and produce more attitude change; whereas, a highcredible source should use fear appeals to produce more attitude change, although reduced credibility might result.

Method

Subjects

Experimental Ss were 228 students in the beginning course in speech at Illinois State University with 176 Ss randomly assigned to the experimental conditions of the study and 58 Ss to the control groups. Conditions were distributed randomly for all experimental and control groups.

Procedures

Materials used in the study included instructions, credibility statements, messages, and measuring instruments. All of the materials and media used in the study were written. The experimental messages advocated the reduction of the space program's appropriations. The reward-oriented message emphasized the benefits that could be derived in three areas: education, medical research, and air and water pollution control. The punishmentoriented message emphasized what would be lost in the same three areas if appropriations for the space program were not reduced. The reward-oriented and punishment-oriented messages are exemplified by the following segments:

Reward-Oriented. First, education. If we spend our money on education rather than space, what will be the benefits? Money spent on education is an investment in the future, an investment that returns hard dollars to the treasury as was evidenced by the original G.I. Bill. As you know, the return from that investment has already exceeded the outlay by 400 percent. Now we can invest in education for the handicapped and obtain thousands of productive workers who might otherwise turn to criminal life or continue the perpetual cycle of poverty and welfare. We can invest in teachers' salaries and school buildings and gain the immeasurable benefits of better qualified teachers and comfortable and stimulating educational environments. There are many other areas of education to which we can turn for our investments, but I don't believe I need to elaborate further. The main point is that we know what we will get when we invest in education. The benefits for society are there to be gained, and if we revise our priorities we know we will gain them.

Punishment-Oriented. First, education. If we spend our money on the space program rather than on education, what will we lose? Money spent on education is an investment in the future, an investment that returns hard dollars to the treasury as was evidenced by the original G.I. Bill. As you know, the return from that investment has already exceeded the outlay by 400 percent. If we refuse to increase our investment in education we are dooming thousands of handicapped people to unproductive lives, and are committing ourselves to ever-increasing welfare roles to care for these people. If we refuse to increase our investment in education for people in poverty environments, we are condemning these people to a perpetual cycle of poverty and a continued increase in crime. If we refuse to increase our investment in teachers' salaries and school buildings, we lose the benefits of more qualified teachers and stimulating educational environments. We need to expand the funding of many other areas of education, but I don't believe I need elaborate further. The main point is that if we refuse to increase our investment in education, we must accept the penalties of such action in the form of more people on welfare, increased crime, and poor quality education.

Because of stylistic devices which were deemed appropriate for the different types of appeals, the length of individual arguments varied somewhat between versions of the message. However, this balanced out for the messages as a whole. Each message was approximately 625 words in length.

Bogus sources were described to induce levels of initial credibility. The high-credible source was identified as a former Associate Director of the NASA Apollo program who had recently resigned. The low-credible source was identified as a member of the Students for a Democratic Society (Weatherman faction) who had been involved in a sit-in at the first manned moon launching. The messages were described as having been taken from testimony by the alleged source before the Space Appropriations Committee of the U.S. House of Representatives on October 15, 1969. In an attempt to make it appear more likely that the SDS source was legitimate, it was noted that he was permitted to testify because of a special request by Rep. Peter L. Searing (also bogus) of New York. Ss were asked to write comments after completing the experiment. Many reacted negatively to the SDS individual but none indicated suspicion about his existence or about the likelihood of his testifying as indicated.

Semantic differential type instruments were employed to measure attitude toward the primary proposition in the message, source credibility, and for message evaluation. Five scales were employed for the concept, "Appropriations for the United States Space Program Should Be Substantially Reduced." These scales were right-wrong, true-false, yes-no, correct-incorrect, and I agree-I disagree. Six scales were used to measure each of three dimensions of source credibility; those developed by McCroskey [5] for authoritativeness and character and those developed by Berlo, *et al.* [1] to measure dynamism. Five scales were included for the concept "The Message You Read:" logical-illogical, wellsupported-poorly-supported, reassuring-threatening, objectivesubjective, and reward-oriented-punishment-oriented. These were included to check on the manipulation of the message variable and

to determine if the Ss perceived other differences between the messages.

Each experimental packet included one of the credibility statements, one of the messages, and the three sets of scales. The control packets were identical with the exception that no message was included nor were the scales included for message evaluation.

Design and Analysis

The design of the study included two factors, initial credibility and message type. The dependent variable measures were submitted to 2×3 analyses of variance with subsequent *t*-tests where appropriate and necessary for interpretation. The two levels of the credibility factor were high and low. The three levels of the message variable were reward-oriented, punishment-oriented, and none (control). The message evaluation scales were submitted to 2×2 analyses of variance because the control Ss did not complete these scales. The .05 criterion was set for significance in all tests.

Results

Analysis of variance of the attitude scores on the primary proposition of the message resulted in three significant F-ratios. A significant effect was observed for credibility (F = 6.20), for message condition (F = 10.71) and for the interaction between credibility and message (F = 3.28). Although all of these significant differences were obtained, an examination of the means of the experimental conditions indicated that there was no support for the two hypotheses concerned with attitude change (See Table 1). The obtained significant differences were attributable to initial credibility, the high-credible source produced more change than the low-credible source, and to the persuasiveness of both the reward-oriented and the punishment-oriented messages in comparison with the control groups. The punishment-oriented message tended to produce slightly more change than the rewardoriented message, but the difference was not significant (t < 1). The observed interaction can be attributed to the fact that the experimental Ss exposed to the high-credible source changed their attitudes much more in comparison to the control Ss than did the experimental Ss exposed to the low-credible source.

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Initial Credibility		Message Condition			
	Dependent Variable	Reward- Oriented	Punishment- Oriented	Control	
High	Attitude*	26.9	28.0	18.7	
	Authoritativeness**	37.9	37.7	37.8	
	Character**	32.6	31.7	27.7	
	Dynamism**	34.4	35.1	30.5	
Low	Attitude*	21.9	23.1	20.0	
	Authoritativeness**	27.1	27.8	24.3	
	Character**	28.0	27.4	22.0	
	Dynamism**	35.0	35.5	36.2	

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Means	for	Attitude	and	Source	Credibility
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* Possible range of scores is 5-35. The higher the score, the more favorable toward the concept. ** Possible range of scores is 6-42. The higher the score, the higher the perceived credibility.

Analysis of variance of the authoritativeness scores resulted in only one significant F-ratio, that for initial credibility (F = 232.47). The source intended to be highly credible was perceived that way by the control group and exposure to the experimental messages did not appear to alter Ss perceptions. The source intended to be low-credible was perceived as moderately credible (almost exactly at the neutral position) by the control Ss. The experimental Ss perceived him to be somewhat higher in authoritativeness, but did not differ significantly from the controls.

Two significant F-ratios were obtained from the analysis of variance of the characters scores, that for initial credibility (F = 48.18) and that for message condition (F = 23.92). The control Ss perceived the supposed high-credible source as moderately high and perceived the supposed low-credible source as moderately low. This difference was maintained subsequent to exposure to the messages in the experimental conditions, however, both the reward-oriented and the punishment-oriented messages increased the perceived character of the experimental sources (See Table 1).

Although examination of the mean dynamism scores for the various conditions (See Table 1) indicates that both sources were perceived as quite dynamic by both the experimental and the control Ss, the analysis of variance of these scores resulted in three

significant F-ratios; these were for initial credibility (F = 12.58), message condition (F = 3.44), and interaction (F = 7.50). All of the cell means were essentially equal, however, except for the supposed high-credible source in the control condition who was perceived as considerably less dynamic than the source in any other condition. This observation indicates that both the rewardoriented message and the punishment-oriented message increased perceived dynamism in the high-credible condition but neither had any effect on dynamism in the low-credible condition.

Taken either individually or as a group, the results of the analyses of the three credibility dependent variables provide no support for the third hypothesis of this investigation. No differential effects for type of experimental message cues were observed on terminal credibility.

Analysis of the message evaluation scales resulted in several interesting findings. The analyses for the "logical-illogical" and "objective-subjective" scales produced no significant F-ratios. In all conditions the message was perceived as quite logical (5.8 to 6.3 on a 7.0 scale) and approximately midway between objective and subjective (3.8 to 4.1 on a 7.0 scale). Analysis of the "well-supported-poorly-supported" scale resulted in significant F-ratios for credibility (F = 12.66) and interaction (F = 3.95). The former appears to be a type of "halo-effect" in that the highcredible source was perceived as presenting a more well-supported message than the low-credible source. The interaction was a result of the reward-oriented message being perceived as better supported than the punishment-oriented message when presented by the high-credible source (6.2 to 5.8) but the punishment-oriented message being perceived as better supported than the reward-oriented when presented by the low-credible source (5.5 to 4.9). The reason for these perceptual differences is not clear.

Analyses of the results on the final two message evaluation scales provide the most important information bearing on this investigation. Analysis of the "reward-oriented-punishment-oriented" scale produced only one significant F-ratio, that for message condition (F = 87.95). The supposed reward-oriented message was perceived as much more reward-oriented than the supposed punishment-oriented message (5.4 to 2.9 on a 7.0 scale).

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It is clear from this result that the messages were perceived as intended. The analysis of the "reassuring-threatening" scale resulted in two significant F-ratios, those for message condition (F = 18.42) and interaction (F = 6.19). While the punishmentoriented message was perceived as somewhat more reassuring than the reward-oriented message when presented by the lowcredible source (4.8 to 4.4 on a 7.0 scale), it was perceived as much more reassuring when presented by the high-credible source (5.7 to 4.2 on a 7.0 scale). If we take this scale as an index of felt anxiety (which we are not sure we should do), the results are the reverse of what might be expected. Talking about rewards should be more reassuring than talking about punishments. However, the fact that the punishment-oriented message provided resolution for the anxiety it attempted to create might explain why it was perceived as more reassuring. It was perceived as more reassuring because it needed to be, since it created more anxiety. Since it was even more threatening when presented by a high-credible source. there was a need to resolve anxiety of even greater strength, thus it was perceived as even more reassuring. The foregoing, of course, is purely speculative. There may be other, more parsimonious explanations for these results.

Discussion

When results of research do not confirm hypotheses either of two circumstances may obtain. Either there are flaws in the design of the research, or the hypotheses are not correct. In this particular case data obtained from the control groups indicate that the credibility statements were perceived generally as intended. The low-credible source was not perceived as "super low" but certainly low enough to provide a valid test of our hypotheses unless our hypotheses are only relevant to the rare case of the extremely low-credible source. Similarly, data obtained from the experimental Ss indicated that they perceived the rewardoriented and punishment-oriented messages as intended. If there were a differential effect on attitude or credibility produced by these types of messages, it should have been observed in this investigation. It was not.

It is very possible that some other variable not manipulated in this investigation enters into the persuasive equation and con-

founds the effects of these types of message appeals. If this is not the case, the research on fear-arousing message appeals may indeed tell us more about other types of message appeals than we have yet realized. This will remain for later investigations to consider. At any rate the current investigation fails to provide sufficient evidence that reward-oriented and punishment-oriented appeals function differentially in persuasive communication as they would be expected to according to learning and consistency theories.

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