DOES CORRECTIVE ADVERTISING AFFECT THE TRUE CLAIMS?: AN EXPERIMENTAL EVALUATION

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Abstract

Many companies that are required to use corrective advertisements worry that the remedial messages designed to change the deceptive beliefs negatively may also affect the true claims of the company negatively. This study evaluated the effectiveness of a corrective advertisement by Listerine which contained several true claims as well as the FTC-ordered corrective statement, in an experimental setting. Findings indicate that the true claims were effective in substantially increasing the beliefs of the subjects about these claims although they appeared along with the corrective statement in the same remedial message.

Introduction

In the early 1970's, the Federal Trade Commission began using corrective advertising as a major weapon in its continuing crusade against deceptive advertising. Several firms whose advertisements were found to be deceptive have agreed to use corrective statements to erase residual misinformation caused by the ads. The increased use of corrective advertising has raised several issues concerning its purpose, effectiveness, and possible side effects.

One issue of concern to advertisers is the impact of corrective advertising on the true claims made by the company. If the remedial message designed to change the deceptive beliefs negatively also affects the true claims of the company negatively, then the advertiser is punished beyond its deceptive gains. One important aspect of the FTC's actions is that they cannot be punitive. The FTC's objectives in requiring corrective advertising are to correct consumer misimpressions and to restore competition, not to punish the advertisers by harming the effectiveness of their true claims.

Literature Review

Wilkie (1974, p. 192) was the first author who emphasized the precision requirement in the development of remedial messages. He stated that the corrective ads should be designed to dispel the residual deception caused by the deceptive ads but be precise enough to affect only these particular responses.

There are three empirical studies in the marketing literature that deal with the affects of corrective ads on other claims made by the company in its advertising. The main purpose of all three was to evaluate the effectiveness of the Listerine corrective advertising campaign. But they also investigated this important side-effects issue.

Mazis and Adkinson (1976) found that the corrective advertisement had a substantial influence on the brand belief it was intended to affect and on a related belief (i.e., kills germs) which was not the target of the communication. They indicate that for the company the impact of corrective communication on other beliefs about the brand is equally important. They offer two possible explanations for this change:

(1) consumer's perception of the germicidal properties of a mouthwash brand may be highly corrolated with a brand's effectiveness against colds or sore throats, and (2) consumers distorted the content of the corrective messages by broadening their scope.

Dyer and Khuel (1978) also found that corrective ads affect other attributes of the product category even though they were not addressed in the remedial message. They measured beliefs about eight mouthwash attributes but used only two of them (i.e., "prevents colds and sore throats" and "kills germs") for analysis and found a significant main affect for the "kills germs" dimension. They called this a "reverse halo effect" phenomenon and questioned corrective advertising's precision (i.e., the "surgical" removal of positive beliefs about a single attribute without affecting other attributes). However, they noted that "prevents colds" and "kill germs" may be very closely associated in the consumer's mind.

In contrast to the above results, Mizerski, Allison and Calvert (1980) found the corrective commercial to be effective in lowering target beliefs, yet precise enough to have no significant effect on any other dependent variables. They used four belief statements for Literine: (1) Listerine is effective for killing germs, (2) Listerine leaves mouth feeling refreshed, (3) Listerine fights colds and sore throats, and (4) Listerine has long-lasting effects. Although they have also used the "kills germs" statement, neither this nor the other two non-target beliefs were significantly changed after the corrective commercial.

Purpose

The literature review showed that there is inconclusive evidence as to whether the corrective commercials affect the true claims made by the advertiser. Although all three studies (1) were about the first court ordered corrective advertising campaign (i.e., Listerine), (2) used similar versions of the FTC ordered corrective message as the independent variable and beliefs as their main dependent variable, and (3) were conducted on college campuses, they found conflicting results.

In order to generate more conclusive evidence about this important side effects issue of corrective advertising, this study was conducted to see if the claims made by Warner-Lamber Company (the producers of Listerine) were affected by the FTC-specified corrective message. In order to include both the FTC's corrective message and the claims Warner-Lambert Company was making about Listerine (as stated on the Listerine's label) a two-sided corrective message was filmed and used as the main independent variable in this study. In an effort to make this experiment comparable to the previous three

studies, the three conditions mentioned in the above paragraph were used.

Methodology

Experimental Procedure

The experimental procedure used in this study is summarized in Table 1.

TABLE 1
EXPERIMENTAL PROCEDURE

Group	First treatment	Post-deception measure (M_1)	Second treatment	Post-correction measure(M_2)
1	Decep. ad	M_{11}[a]	Correct. ad (Co. source)	M_{21}
2	Decep. ad	M_{12}	Correct. ad (FTC source)	M_{22}
3	Decep. ad	M_{13}	Irrele-vant	M_{23}

[a]M_{ij} refers to the ith measure for the jth group.

The sample consisted of 108 subjects randomly assigned to three groups. For each group, subjects were assembled in a laboratory setting and shown various combinations of 60-second filmed ads--deceptive and corrective ads for Listerine and irrelevant ads for other products. Sets of Salient Belief Technique[1] measures were taken at two points during the experiment. For the first treatment, Groups 1, 2, and 3 were exposed to a deceptive Listerine television commercial and to television commercials for irrelevant products (a food product and a finance company). Then the subjects completed a set of questions (M_1) for the purposes of establishing their post-deception levels of claim beliefs and saliences.

For the second treatment, Group 1 saw a company-source corrective ad for Listerine, along with ads for the other two products. Group 2 saw an FTC-source corrective ad along with the other two ads. Group 3 saw only irrelevant ads. Each subject then completed a second set of questions (M_2) the purpose of which was to determine the effects of the corrective ads for Listerine on claim beliefs and saliences. Group 3 served as a control for measuring the impact of the corrective ads.

The reaction of subjects to the experimenter and the experimental situation (reactivity effect) was not directly controlled in this experiment. Reactivity effects are impossible to eliminate or control in laboratory experiments. Reaction to the experimenter was reduced by using written, standardized instructions that were read by a neutral party. Reactions to the experimental situation might have been assessed by including a fourth group that was exposed to a neutral (nondeceptive or noncorrective) Listerine ad. But, budget constraints plus the difficulty of identifying truly neutral Listerine ads (those with no deceptive claims or no possibility of evoking memories of other Listerine ads that did have deceptive claims) made this strategy untenable. Thus, the possibility of reactivity effects must be considered in evaluating the results of the study.

[1]Salient Belief Techniques measures salient belief scores (SBS). SBS is calculated for every claim by multiplying that claim's belief score by that claims salience score.

Subjects

The subjects were students enrolled at a large state university, who responded to solicitations for volunteers and a small monetary inducement fot participation. A sample consisting of student and nonstudent subjects might have been more representative of relevant consumers. But students do represent a segment of relevant consumers (61 percent were using Listerine or had used it previously), and there may not be that much difference between student consumers and nonstudent consumers. The SBT results for the food product and finance company ads in this study were similar to the results of a previous study using the same ads, with a sample consisting of non student adults of a wide range of ages (Armstrong, Kendall, and Russ 1975).

The Deceptive and Corrective Ads

The deceptive Listerine television ad was chosen from a reel of 29 Listerine ads held by the FTC as evidence in the Warner-Lambert case. The particular film used was selected because it expressed or implied all three of the claims that the FTC had found to be deceptive: Listerine will (1) prevent, (2) ameliorate, and (3) cure colds and sore throats (Exhibit 1).

EXHIBIT 1
TEXT OF THE DECEPTIVE ADVERTISEMENT

[It is raining. Two mothers start talking. One mother has just escorted her children to the school bus, the other (Muriel) is checking the mailbox.].

1st Mother Muriel, where are Dave and Sue?
2nd Mother Oh, down with a cold again.
1st Mother Again?
2nd Mother Oh, guess your family always seems fine
1st Mother I got a theory.
2nd Mother A theory? Nothing can prevent colds.
1st Mother You can help. Let's get out of the rain.
[They go inside the house.]
1st Mother Muriel, I make sure they have plenty of rest, and I watch their diets.
2nd Mother Uh-huh.
1st Mother Then I have them gargle twice a day with Listerine
2nd Mother Listerine antiseptic?
1st Mother Uh-huh. I think we've cut down on colds and those we catch don't seem to last as long.
2nd Mother Sure seems to work for your family.
1st Mother Yes, it does.
2nd Mother Well, I'll try it.
Male Voice During the cold-catching season, for fewer colds, milder colds, more people gargle with Listerine than any other oral antiseptic. Listerine [Music]

The corrective ads used in this study were professionally filmed for this experiment. Two ads were produced --one with a company source and one with an FTC source. The scripts (read by an actor) were identical in both filmed ads, except for the

introductoy sentences that identified the source of the message. To assure that subjects noted the source of the message, relevant props were used in the ads to identify the source visually throughout the message. The text of the corrective message is provided in Exhibit 2.

EXHIBIT 2
TEXT OF THE CORRECTIVE MESSAGE

Hello, I am Walter Hughes (fictitious name), representing the (FTC or Warner-Lambert Company).

Contrary to prior advertising of Listerine, Listerine will not prevent or cure colds or sore throats, and, Listerine will not be beneficial in the treatment of cold symptoms or sore throats.

Listerine is an antiseptic that kills germs on contact. It is effective for general oral hygiene, bad breath, minor cuts, stratches, insect bites, and infectious dandruff. But it is not effective against colds and cold symptoms, because colds are caused by viruses and Listerine does not kill virsus.

The first paragraph of the message identifies the source. The second paragraph is from the final order of the FTC, and corrects previous impressions about the product. The first two sentences of the final paragraph state the benefits of Listerine as presented on the Listerine label. The final sentence explains the reasoning behind the corrective message.

In both ads, the message is presented in a straightforward narrative. The message is objective--the FTC has medical evidence to support the negative claims and Warner-Lambert has medical evidence to support the positive claims. The message is two-sided--three negative and six positive claims are made. The message was designed to fit the spirit of Senator Magnuson's (1972, p.4) suggestion that consumers have the right "to be given the facts needed to make an informed choice."

Questionnaires

The questionnaire began with a short cover letter that introduced the experiment and explained that it was part of a study designed to measure ad effectiveness. In all cases, sets of questions about Listerine were placed between sets of similar questions about the food product and the finance company. This allowed subjects to become familiar with the format of the questionnaire while answering "irrelevant" questions. After viewing the deceptive Listerine ad, subjects were first asked if they were familiar with the brand. They were then given ten claims about Listerine, and were asked to indicate the extent to which they believed each claim was true (definitely true, probably true, probably false, definitely false). They were then asked to indicate how important (very, moderately, slightly, not at all) each claim would be to their decision to buy the product, if the claim were true. Five of the claims used were mentioned in the deceptive ad (A,E,G, I, J) and eight were stated in the corrective ads (all but claims F and I). (See Table 2).

TABLE 2
CLAIMS ABOUT LISTERINE

A. A person who uses Listerine will have fewer colds.
B. Listerine is effective for minor cuts.
C. Listerine prevents bad breath.
D. Listerine is effective for insect bites.
E. Colds do not last long if you use Listerine.
F. Listerine has a pleasant taste.
G. A person who uses Listerine will have milder colds.
H. Listerine is effective for infectious dandruf.
I. During winter, more people gargle with Listerine than any other oral antiseptic.
J. Listerine is an antiseptic.

The second part of the questionnaire, completed after viewing the corrective messages, was similar to the first part except the product familiarity questions were deleted. In addition subjects were asked about their purchase behavior for products shown in the ads. Throughout the study, sets of questions pertaining to a particular and were completed immediately after that ad was viewed.

Analysis

The main dependent variable in this experiment was the "Salient Belief Score" (SBS). The total SBS was calculated for every claim by multiplying the "belief score" of every subject by that subject's "salience score" (the importance of that claim in affecting that subjects decision to buy the product) and summing the products. Then the mean SBS for a claim was found by dividing the total SBS by the number of subjects in that group.

The formula for mean SBS for each claim is as follows:

$$\text{Mean SBS} = \sum_{i=1}^{n} B_i I_i / N \qquad (1)$$

i = subject
B_i = belief score of subject i
I_i = importance (salience) score of subject i
N = total number of subjects in the group

Two mean SBSs were calculated for the measurements M_1 and M_2 for each claim in each group. T-tests were used to analyze the significance of the change in mean SBS from M_1 to M_2 for each claim in each group.

Results

The findings of the study for the non-deceptive claims made by Listerine are shown in Table 3. (For the findings about the deceptive claims, see Armstrong, Gurol and Russ, 1979).

Group one was exposed to a corrective message from the company source which mentioned all but two claims ("pleasant taste" and "during winter more people gargle with Listerine than any other oral antiseptic") in Table 2. Among these eight claims, five were true claims, and the mean SBS of four of them increased significantly ($P < .002$ or less) (Table 3, Column 3, rows 1,2,3,5). The increase in the mean SBS of the remaining true claim "Listerine is an antiseptic" was close to being significant ($P < .065$). The reason why it did not have a substantial increase is probably because it

TABLE 3
MEAN SBS* FOR NON-DECEPTIVE LISTERINE CLAIMS

Group	Claim	Post-deception measure (M_1)	Post-correction measure (M_2)	T-value
	B. effective for minor cuts	5.743	9.111	-5.33[a]
Group I	C. prevents bad breath	9.429	11.056	-3.34[b]
Company -	D. effective for insect bites	5.314	8.556	-5.39[a]
Source	F. has pleasant taste	4.714	4.629	-0.35
Corrective	H. effective for infectious dandruf	3.771	7.029	-4.68[a]
Message	I. during winter, more people use it	4.857	4.629	0.95
(n = 36)	J. is an antiseptic	10.750	12.000	-1.91
	B. effective for minor cuts	5.974	9.216	-6.46[a]
Group II	C. prevents bad breath	9.359	11.297	-4.59[a]
FTC-source	D. effective for insect bites	5.000	8.270	-5.33[a]
Corrective	F. has pleasant taste	4.816	4.622	1.09
Message	H. effective for infectious dandruf	3.447	5.189	-6.65[a]
(n = 39)	I. during winter, more people use it	5.081	4.730	3.39[b]
	J. is an antiseptic	9.459	11.297	-3.49[a]
	B. effective for minor cuts	5.545	5.419	.36
Group III	C. prevents bad breath	8.394	8.387	.11
Deceptive	D. effective for insect bites	4.364	4.968	-1.06
Message only	F. has pleasant taste	3.727	4.355	-1.79
(Control	H. effective for infectious dandruf	3.576	4.032	-3.10[b]
Group)	I. during winter, more people use it	6.970	6.226	1.38
(n = 33)	J. is an antiseptic	10.576	10.290	.68

[a] $p < .001$
[b] $p < .01$

*Mean Salient Belief Score could run from 1 to 16 because each of its two components (i.e., belief and salience scores) are scored 1 to 4.

already had the highest post-deception mean SBS (Table 3, Column 1, Row 7) and since 16 was the highest possible mean SBS, there was little to increase.

These results support the effectiveness of advertising in communicating its messages, especially under forced-exposure conditions. The true claims in the corrective message increased the mean SBSs of these true claims substantially. Also, there were no significant changes in the mean SBSs of the two claims that were not mentioned in the corrective ad. (Table 3, Rows 4 and 6).

It is interesting that these results are similar to the findings of the Federal Trade Commission's research about the real-world, $10,000,000, Listerine corrective advertising campaign's effectiveness. A recent FTC News Summary reported that the Burke Marketing Research Inc., which conducted the study for the FTC, found that "Viewers apparently understood that the entire commercial's primary purpose was not to communicate the correction, but to promote the product. 'No significant change in the communication of commercial "sales messages" has been attributed to the addition of the corrective statement'." (October 30, 1981, p. 2).

Group two was exposed to the same corrective message from the FTC-source. This time all five true claim mean SBSs increased highly significantly ($p < .001$). (Table 3, column 3, rows 8, 9, 10, 12, 14). There was no significant change in the mean SBS of the claim "has pleasant taste" which was not mentioned in either the deceptive or corrective ads. (Table 3, column 3, row 11). There was a significant ($p < .002$) decrease in the mean SBS of the "during winter, more people gargle with Listerine than any other oral antiseptic" claim although it was mentioned only in the deceptive ad and not in the corrective message. (Table 3, column 3, row 13). This claim implicitly makes a cold prevention claim. Therefore, the significant reduction in its mean SBS is probably due to the relative power of the FTC-source message over the company-source message in reducing cold-related claims.

Group three was exposed to the deceptive ad but not to the corrective message and its purpose was to serve as a control for the corrective ad. Six out of seven claims showed no significant changes as expected. (Table 3, column 3, rows 15, 16, 17, 18, 20, 21). Only the "effective for infectious dandruf" mean SBS changed significantly ($P < .01$). (Table 3, column 3, row 19). One possible explanation of this unexpected change could be that in all three groups,

this claim had the lowest post-deception mean SBS and even a relatively small change from this small base was statistically significant.

Conclusions and Implications

The main purpose of this study was to answer the question: "Does corrective advertising affect the true claims?" The findings indicate that the answer is "no, it does not", although two previous studies concluded that it did. The results support the effectiveness of advertising in communicating its messages, whether positive or negative, especially under forced-exposure conditions. In general, the true claims in the corrective advertisement increased the beliefs of the subjects about these claims and the unmentioned claims left the beliefs unchanged.

The two studies which found that corrective advertisements reduced the effectiveness of the true claims were dealing with the claim "kills germs" which seems highly correlated in the consumer's mind with the brand's effectiveness against "colds and sore throats." Therefore, the corrective message aiming to reduce the deceptive beliefs also reduced the "kills-germs" belief. This study used several true claims unrelated to the deceptive claims along with the corrective statement and found that the true claims increased the beliefs of the subjects in these true claims. In conclusion, the findings indicate that the corrective messages designed to reduce deceptive beliefs created by advertisers do not harm the effectiveness of the company's true claims, therefore, the FTC's corrective advertising orders are not punitive. This conclusion should be a relief for both the advertisers and the FTC.

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