THE OVERKILL EFFECT OF CORRECTIVE ADVERTISING: AN HEIDERIAN PERSPECTIVE ON THE INFLUENCE OF CORRECTIVE ADVERTISEMENT SPONSORSHIP ON COGNITIVE RESPONSES TOWARD THE COMPANY

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Abstract

From Heider's Balance Theory, it was hypothesized that the effects of corrective advertising interactively depend on who sponsors the corrective advertisement and on the audience's generalized attitude toward business and advertising. Subjects who held either favorable or unfavorable attitudes toward business and advertising were exposed to an authentic but unfamiliar corrective advertisement which was sponsored by either the FTC, or the company, or an unidentified source. The results supported the hypotheses. Persons unfavorable toward business generated more negatively loaded cognitive responses toward the company when the corrective advertisement was FTC sponsored than when it was company sponsored. The opposite pattern occurred when the subjects were favorable toward business and advertising.

Introduction

Upon judging an advertising practice as deceptive, the Federal Trade Commission (FTC) may simply require the discontinuance of the alleged deceptive advertising, but sometimes it may even require that the deceiver actively engage in corrective advertising to negate the lingering carryover effects of misinformation. (For a good review of the FTC's injunctive power and of the evolution of corrective advertising, see Scammon & Semenick 1982.) The recent empirical research on the effectiveness of corrective advertising has largely been directed at determining the conditions under which exposure to corrective advertising sufficiently reduces the strength of consumers' beliefs in the deceptive claim (the target belief), while not affecting other beliefs (the nontarget beliefs) about the product (c.f., Mizerski, Allison, & Calvert 1980).

However, there is a possible overkill effect of corrective advertising which is understandably of critical concern to the company at fault--namely, the deleterious effect of the corrective advertising on the company's own image. This issue is also of import to the FTC, for the purpose of FTC-ordered corrective advertising is to reduce the target beliefs, not to destroy a company's image. Fear of causing unnecessary damage to the company and of violating the First Amendment may be reasons why the FTC has generally been very conservative in handing down corrective advertising orders (Hunt 1977; Scammon & Semenik 1982).

Several researchers have examined the effects of corrective advertising on the company's image. A national field survey conducted by Armstrong, Franke, and Russ (1982) showed that Warner Lambert's image decreased after the corrective Listerine campaign. But a more common finding of experimental research is that the company's image is, by and large, unaffected by the corrective advertising (Hunt 1972; Kassarjian, Carlson, & Rosin 1975; Mizerski, Allison, & Calvert 1980; Semenik 1980). Dyer and Kuehl (1974), however, reported intriguing evidence that an FTC-sponsored corrective advertisement relative to a company-sponsored corrective advertisement, enhanced the perceived trustworthiness of the company, at least for high strength messages.

There is, then, an empirical basis for suspecting that that the sponsorship of a corrective advertisement (e.g., FTC vs. company-sponsorship) may have differential effects on a company's image. Moreover, it is the contention of the present study that these effects, some of which may appear to be counterintuitive, can be parsimoniously couched in Heider's Balance Theory (Heider 1958). According to Balance Theory, persons are motivated to achieve balance among their cognitions. (For a good account of the revived interest in cognitive consistency motivation, see Wicklund & Frey 1981.) In the present context, an Heiderian analysis would lead to the projections illustrated in Figure 1. The upcoming interpretation of Figure 1 presumes that attitudes toward business and advertising tend to be inversely related to the attitudes toward those government agencies (e.g., the FTC) which regulate business and advertising practices. This presumption is not without empirical merit, for in a number of questionnaires used to measure attitudes toward business and advertising, items which address the degree to which business and advertising should be government-regulated more often than not receive high factor loadings in the inverse direction (Joseph & Cook 1981).

Figure 1 shows that the effect of FTC- versus company-sponsorship of a corrective advertisement may depend on the consumer's generalized attitude toward business and advertising practices. For example, when consumers who hold negative attitudes toward business and advertising are exposed to a corrective message in which a company sponsors a negative statement about itself (i.e., a company-sponsored corrective advertisement), imbalanced cognitions exist. To achieve balance, the attitude toward the company may become relatively more favorable. If, however, the FTC had sponsored the corrective message, those same consumers who held unfavorable attitudes toward business and advertising (or, favorable attitudes toward the FTC) should become relatively less favorable toward the company in order to maintain or achieve a balanced set of cognitions. To say it another way, if someone I like (the FTC) says something bad (in an FTC-sponsored corrective advertisement) about an object (a business), I should dislike that "object," too. To complete the picture, the remainder of Figure 1 shows that a company's resultant image should be relatively unfavorable when persons who hold positive attitudes toward business and advertising are exposed to company-sponsored rather than FTC-sponsored corrective advertising.

The primary purpose of the present study was to test this Balance Theory interaction hypothesis concerning the differential effects of FTC- versus company-sponsorship of corrective advertising on company

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image. A second purpose was to demonstrate the feasibility of employing cognitive response measurement in this type of investigation. Gauging the quantity and quality of cognitive response output has become a useful and celebrated method of monitoring cognitive processing (Kassarjian 1982; Lammers 1985; Lutz & Swasy 1977; Petty, Ostrom, & Brock 1981; Sawyer & Ward 1979; Wright 1980). It is usually argued that these cognitive responses serve as mediators of attitude formation and change (Belch 1982; Olson, Toy, & Dover 1982; Toy 1982). Given the importance attached to the role of cognitive responses in the attitude formation and change process, it was felt that the measurement of cognitive response activity would be a worthy barometer of the subjects' cognitive image of the company.

Method

Subjects and Design

The experimental design was a 3 x 2 factorial with sponsorship (FTC vs. company vs. control) and generalized attitudes toward business and advertising (favorable vs. unfavorable) as the between-subjects factors. One hundred and ten undergraduates in a large west coast university volunteered to serve as subjects in a study on "attitudes toward advertisements." The use of students as subjects necessarily limits the generalizeability of the research findings. On the other hand, the use of such homogeneous samples enhances the internal validity of the experiment (Sawyer; Worthing, & Sednak 1979). Given that there must be a tradeoff between internal and external validity, and given the purpose of the present experiment, internal validity considerations were deemed more important (Berkowitz & Donnerstein 1982; Calder, Phillips, & Tybout 1982).

Procedure

The experimenter, a male graduate student, explained to the subjects that he was conducting the study as part of the requirements for one of his graduate courses in marketing.The subjects, who were run in groups of 20 to 30, were then given booklets containing instructions, a corrective advertisement, and a questionnaire. The subjects were instructed in the booklet to "examine on the next page an advertisement that had appeared in a Spring, 1978, issue of Newsweek magazine." After examining the advertisements, the subjects were then asked to complete a set of questions comprising the dependent and ancillary measures. Upon completion of the questionnaire, the subjects were debriefed and thanked for their participation. In the debriefing, none of the subjects successfully guessed the purpose or hypotheses of the experiment. This is not altogether surprising given that a between-subjects design was employed in the present study.

Manipulation of Sponsor

The sponsor of the corrective advertisement was manipulated by randomly administering three versions of a corrective advertisement for the specifics of the STP Corporation. (For a good rundown on the STP corrective advertisement case, see Belch, Belch, Settle, & DeLucchi 1981; Scammon & Semenik 1982; and Tyebjee 1982). One third of the subjects were randomly selected to receive the FTC-sponsored advertisement which contained the bold heading, "FTC NOTICE." This version was, in fact, the original corrective advertisement that had appeared in Newsweek more than four years prior to this experiment. Another third of the subjects were randomly assigned to receive the STP-sponsored advertisement which contained the bold heading, "STP NOTICE." Finally, a third of the subjects were randomly assigned to the Control condition and received an advertisement which simply had the headline "NOTICE." Aside from the headings, all three advertisements were identical.

Generalized Attitudes Toward Business and Advertising

Generalized attitudes toward business and advertising were assessed by a series of nineteen items which appeared at the tail-end of the questionnaire. These nineteen items, presented in Table 1, were adapted from Joseph and Cook (1981), Larkin (1977), and Reid and Soley (1982). Subjects responded to the items on 9-point, Likert-type scales. An advantage of using a post- rather than a preexperimental measure of generalized attitudes toward business is that both the testing main effect and the testing X treatment interaction effect on the primary dependent measures can be eliminated as contaminators of internal validity (Campbell & Stanley 1959; Churchill 1983). However, certain safeguards were taken to assure that the experimental manipulation (sponsorship of the corrective advertisement) did not differentially affect responses to the attitudes toward business and advertising items. First, the generalized attitudes toward business and advertising items were the very last items on the questionnaire, thus allowing for a decrease in the treatment saliency. Second, immediately preceding these items was a 34-item Need for Cognition scale (Cacioppo & Petty 1982). The Need for Cognition scale acted as a "filler-distractor" between the primary dependent measures and the general attitudes toward business and advertising measures. Third, and most importantly, an analysis of variance (ANOVA) was performed on the attitudes toward business and advertising with Sponsor as the independent variable. The ANOVA clearly showed that the experimental treatment did not differentially affect generalized attitudes toward business [$F(2,104) < 1.00$]. Since the experimental manipulations did not affect responses to the attitudes toward business and advertising items, a postclassification of subjects is equivalent to a preclassification of subjects, provided that a relative index such as the median is used to split subjects into groups.

Factor analysis. A principal components factor analysis with varimax rotation was performed on subjects' responses to the nineteen items. The results, presented in Table 1, revealed a dominant factor which accounted for 40.2% of the variance (eigen value = 4.70). This factor enjoyed loadings of greater than .40 on the five items asterisked in Table 1. Factor scores based on these five items were computed for each subject. A median split of the factor scores provided for the classification of subjects as being relatively favorable or unfavorable to business practices.

Company Image

Company image was assessed by cognitive response measures and scaled perceptions.

Cognitive Response. Cognitive responses were collected by using a thought-listing procedure adapted from cognitive response research (Petty, Wells, & Brock 1976; Lammers & Becker 1980). Cacioppo (1982) and Cacioppo and Petty (1981) have amassed considerable evidence linking cognitive response activity (as measured by simple self-report and thought-listing methods) and psychophysiological activity (e.g., interhemispheric distribution of alpha abundance over the parietal lobes). They concluded that the simpler thought-listing method for measuring cognitive responses has sufficient construct validity to warrant its use over more costly and complex methods.

In the present study, cognitive response measures were taken immediately after subjects had examined the stimulus corrective message. They were asked to "Please list below any thoughts, ideas, or feelings you may have

about the material on the preceding page. Don't worry about spelling, grammar, punctuation, etc." A blank page was provided for the subjects to list their cognitive responses. After the data collection phase of the experiment had been completed, two research assistants (undergraduates) blind to the experimental purpose and design classified the cognitive responses into five categories: a) unfavorable toward the STP Company (company-negative cognitive responses), b) favorable toward the STP Company (company-positive cognitive responses), c) unfavorable toward the FTC (FTC-negative cognitive responses), d) favorable toward the FTC (FTC-positive cognitive responses), and e) irrelevant/neutral cognitive responses. The concordance between the two judges was .83. The few disagreements were resolved through their own discussions. Since over 90 percent of the cognitive responses were classified as being directed at the company, only those cognitive responses will be discussed further.

Scaled Perceptions. In addition to assessing company image via cognitive responses toward the company, company image was also measured in a more traditional manner by having subjects "evaluate the STP Corporation" on a set of ten, 10-point self-rating scales. The ten items, in order of their appearance on the questionnaire, were: Unreliable-Reliable, Dishonest-Honest, Untrustworthy-Trustworthy, Bad-Good, Weak-Strong, Passive-Active, Slow-Fast, Poor-Rich, Selfish-Generous, and Despicable-Lovable. A principal components factor analysis of those ten items yielded two factors. The first factor, hereafter referred to as the evaluative dimension, accounted for 77.7 percent of the common variance. The items which loaded most heavily on this dimension were: Reliable, Honest, Trustworthy, Good, Generous, and Lovable. The second factor, hereafter referred to as the activity-potency dimension, accounted for 22.3 percent of the common variance. The items which loaded most heavily on this second dimension were: Strong, Active, Fast, and Rich. The rotated factor matrix, communalities, and eigen values are shown in Table 2.

It is extremely encouraging to see the similarity between the bipolar structure of the present company image scale and the findings of social-environmental psychologists who contend that affect is bipolar and accounted for by the factors of pleasure-displeasure and degree of arousal (Russell 1979, 1980). These two factors once enjoyed the company of a third factor, dominance (Russell & Mehrabian 1976), but that third factor has been relegated to a less dominant role in the structure of affect (Russell & Pratt 1980).

Both factors of the present study were retained and formed the base for subsequent analyses of company image. Two factor scores, one for each dimension, were computed for each subject by using the complete estimation method shown below in Formula 1 (Kim & Mueller 1978; Sheth & Tigert 1977):

$$f_i = S \sum_{j=1}^{n} fsc_{ji} z_j \qquad (1)$$

where:

f_i = factor score i

fsc_{ji} = factor score coefficient for variable j and factor i

z_j = standardized value on variable j

n = total number of j variables, here n = 10.

FTC Image

Image of the FTC was measured by having subjects rate the FTC on the same ten scales used to assess company image. A factor analysis of these items again produced a bipolar structure virtually identical to the factor analysis on the company image scale in Table 2. Thus, two complete estimation factors scores for image of the FTC were computed for each subject. It will be recalled that cognitive responses directed at the FTC had also been measured, but they were so few in number that they were not subjected to further analysis.

Other Measures

Strength of belief in the claim that STP reduced oil consumption, perceived appropriateness of the fine on STP, and prior familiarity with the advertisement were assessed on ten-point self-rating scales. Recent brand usage was measured by an open-ended question which asked "When was the last time you used STP oil additive?"

Results

The data were subjected to 3 x 2 analyses of variance (ANOVAs) with sponsor (FTC vs. company vs. control) and generalized attitudes toward business and advertising (favorable vs. unfavorable) as the between-subjects factors. Internal analyses of the significant interaction effects were performed with Duncan's New Multiple Range Tests (Kirk 1968).

Company Image

Cognitive Response. A significant interaction effect was found on the generation of company-negative cognitive responses, $F(2,104) = 3.67$, $p < .029$. The pattern of the interaction means, shown in Figure 2, is consistent with the hypothesis of the present experiment. The internal analysis of this pattern showed that the company-sponsored corrective message significantly inhibited the generation of company-negative cognitive responses for those who held unfavorable attitudes toward business and advertising ($M_{company} = 0.77$ vs. $M_{FTC} = 1.85$, $p < .05$; the control group mean of 1.53 differed from neither 0.77 nor 1.85). Furthermore, for persons who held more favorable attitudes toward business and advertising, the FTC-sponsored corrective advertisement tended to have the strongest inhibitory influence on the generation of company-negative cognitive responses ($M_{FTC} = .092$ vs. $M_{control} = 1.83$, $p < .10$; the company sponsored mean of 1.62 differed from neither 0.92 nor 1.83). No significant effects were found in the analysis of the positive cognitive responses directed at the company (all $Fs < 2.63$, Grand $M = 0.35$).

Scaled perceptions. A significant main effect of generalized attitudes toward business and advertising on the evaluative dimension factor scores simply showed that those with favorable attitudes gave the company more positive ratings than did those persons holding unfavorable attitudes toward business and advertising ($M_{unfav} = -.388$ vs. $M_{fav} = .253$, $F(1,104) = 12.21$, $p < .001$). Generalized attitudes toward business and advertising did not, however, significantly affect the activity-potency ratings of the company ($M_{unfav} = -.099$ vs. $M_{fav} = .067$, $F(1,104 < 1.00)$. Sponsorship of the corrective advertisement, either alone or in interaction, had no statistically significant effect on scaled company image perceptions.

FTC Image

Subjects who held favorable, relative to unfavorable, attitudes toward business and advertising gave the FTC higher ratings on the activity-potency dimension ($M_{fav} = .189$ vs. $M_{unfav} = -.319$, $F(1,104) = 4.43$, $p < .05$). Message sponsorship also affected ratings of the FTC on this dimension. In specific, the FTC received significantly higher scores on this dimension when the corrective advertisement was company-sponsored ($M = .40$) than when the corrective advertisement was FTC-sponsored ($M = -.14$) or unsponsored

($M_{control}$ = -.52), $F(2,104) = 4.43$, $p < .02$. No other effects on FTC image were statistically significant.

Other Measures

Subjects with favorable attitudes toward business and advertising, relative to those with unfavorable attitudes, showed a tendency to more readily believe the STP claim of reduced oil consumption. (M_{fav} = 3.54 vs. M_{unfav} = 2.76, $F(1,104) = 2.88$, $p < .093$). No other effects on this variable approached significance.

No significant effects were found in the perceived appropriateness of the fine, recency of brand usage, nor on familiarity with the corrective advertisement. It is noteworthy that the low grand mean of the advertisement familiarity measure ($M = 2.07$) indicated that subjects were very unfamiliar with the advertisement.

Discussion

The present study showed that FTC- versus company-sponsorship of corrective advertising can have differential effects on a company's image, but the direction of the effects depends on an audience factor. Specifically, the cognitive response results indicated that when the audience held unfavorable attitudes toward business and advertising, a company-sponsored corrective advertisement significantly decreased the generation of negative cognitive responses directed at the company. But for those who held favorable attitudes toward business and advertising, it was the FTC-sponsored corrective advertisement which most effectively inhibited negative cognitive responses directed toward the company.

Interestingly, a comparable interaction effect was not found on positive cognitive responses. A viable explanation is that dominant cognitive responses tend to be more sensitive to treatment effects than nondominant cognitive responses (Lammers 1982; Petty, Wells, & Brock 1976). Since the negative cognitive responses in the present study exceeded positive cognitive response generation (M_{neg} = 1.37 vs. M_{pos} = 0.35, $p < .05$) it would be reasonable to expect few significant effects on the less dominant (positive) cognitive responses.

In the same vein, main effects were found on the evaluative and activity/potency scaled perceptions of the company and of the FTC. These main effects alone had little bearing on the hypotheses of the present study and were largely unsurprising and uninteresting. The absence of an interaction effect on these scaled perceptions highlights a point made by others who have also noted less than a perfect degree of correspondence between cognitive response and "traditional" attitude measures (Lammers, Leibowitz, Seymour, & Hennessey 1983; Swinyard 1981; Wright 1974); namely, important effects and theoretical implications may be overlooked by using only the traditional measures of attitudes.

Generalizations based on the findings of the present study are necessarily limited by the constraints imposed to achieve internal validity. Few consumers would ever find themselves in a setting and situation similar to that used in this experiment. But as is the case with most experiments, the artificial nature of the setting was the result of efforts to control for such extraneous variation as exposure time, history, and maturation. And as was mentioned earlier in this report, achieving a respectable degree of internal validity was an important criterion in the design of this experiment.

An obvious next step in a marketing research system is to conceptually replicate this experiment with a field experiment. The results of a field experiment would undoubtedly have to be tempered by an attached disclaimer warning others of the internal validity which had been forsaken for external validity. But the combined picture provided by a laboratory experiment and a field experiment should prove to be most instructive.

Despite the caveat on generalizing the results of this study, it is all but impossible to resist the temptation to dwell at least briefly on the implications of the results for strategic marketing and public policy. Foremost is the counterintuitive suggestion that FTC-sponsored corrective advertisements should not be directed at target markets known for their hostility toward business and advertising. Company-sponsored corrective advertisements stand to fare better in such markets. (This realistically assumes, of course, that no damage to the company's image is desired by the FTC.) Conversely, in friendly markets (those which evidence favorable attitudes toward business and advertising), company-sponsored corrective advertisements run the risk of producing an overkill effect on the company's image. In the friendlier markets, FTC-sponsored corrective advertisements are preferable to company-sponsored ones.

Finally, it is also important to keep a reasonable perspective on the many factors which may moderate the effects of the corrective advertising. This experiment isolated only two from the flock--sponsorship (a source factor) and generalized attitude toward business and advertising (an audience factor).

Figure 1

Hypothesized Interaction Effect
of Corrective Advertising
on Company Image

Generalized Attitude Toward Business & Advertising	Sponsor of Ad	Direction of Assertion	Target of Assertion	Resultant Image of Target (Company)
Favorable	FTC (-)	(-)	Company (+)	Positive
	Company (+)	(-)	Company (+)	Negative
Unfavorable	FTC (+)	(-)	Company (-)	Negative
	Company (-)	(-)	Company (-)	Positive

Table 2

Principal Components Factor Analysis
of Company Image perceptions
(VARIMAX Rotation with Kaiser Normalization)

Order	Items	Factor 1: Evaluative	Factor 2: Activity, Potency	h^2
3	"Trustworthy"	.88	.09	.838
2	"Honest"	.86	.28	.812
1	"Reliable"	.82	.32	.779
10	"Lovable"	.82	.06	.661
9	"Generous"	.62	-.04	.390
4	"Good"	.77	.44	.791
6	"Active"	.10	.75	.565
7	"Fast"	.07	.69	.482
8	"Rich"	.11	.57	.343
5	"Strong"	.33	.66	.548
Eigen Value (Initial)		4.83	1.39	
Percentage of Common Variance		77.7%	22.3%	

Note. $n = 110$.

Table 1

Principal Components Factor Analysis of Attitude Toward Business and Advertising (VARIMAX Rotation)

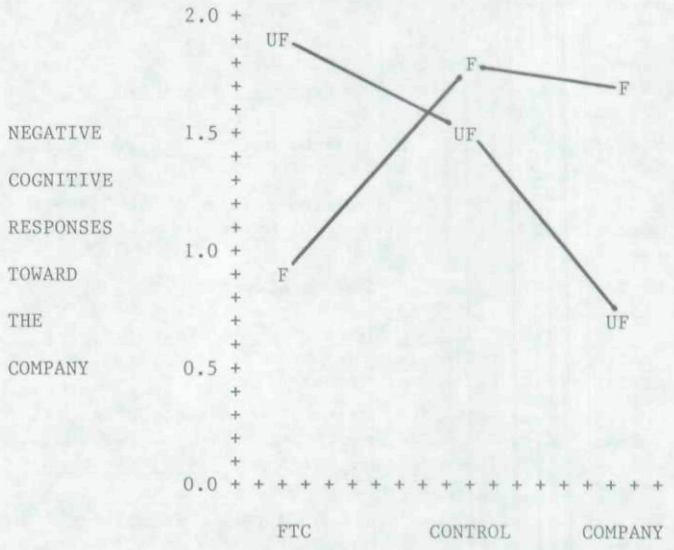
Order	Item	FACTOR A	B	C	D	E	F	h^2
5*	Most corporations are socially responsible	84	20	-06	-13	03	06	77
4*	Most business executives are highly ethical	73	-20	04	07	-15	-27	68
1*	Advertising is 100% truthful	68	-18	02	-10	03	17	53
14*	Advertisements present a true picture of the product	50	-03	-24	-04	-24	04	37
16*	Too many of today's advertisements are silly and ridiculous	-43	10	48	22	16	06	50
19	The FTC should be stricter in enforcing truth in advertising	-12	82	15	41	11	-16	92
13	There should be less advertising	-02	68	21	-05	04	-18	54
9	Capitalism no longer meets the needs of society	-11	62	-17	17	06	13	48
12	There should be more government regulation of advertising	13	61	-17	12	38	-07	59
10	Advertisers are not likely admit they engaged in deceptive advertising unless forced to do so	-33	51	31	-12	09	34	60
17	Most advertising insults the intelligence of the consumer	-23	06	69	01	26	-08	61
15	There should be a ban on advertising of harmful or dangerous products	-23	06	69	01	26	01	53
3	There is too much government regulation of business	17	-34	63	06	-07	-09	56
18	Advertising often persuades people to buy things they really don't need or shouldn't buy	-02	34	58	27	-03	-02	53
7	Corporate profits are excessive	05	07	20	85	27	09	86
8	Large corporations have too much influence in government	-27	26	06	62	14	08	55
2	Most products are safe	38	-07	01	-31	-59	02	60
6	Most corporations intentionally engage in deceptive advertising	-23	12	30	34	49	09	52
11	Advertising is essential to the prosperity of our economy	08	-13	-14	13	-06	94	96

	FACTOR A	B	C	D	E	F
Eigen Value	4.70	2.09	1.72	1.40	1.03	0.76
%	40.20	17.90	14.70	11.90	8.80	6.50

Note: N = 110. Decimal points from factor scores omitted. Subjects responded on 9-point Likert-type scales. *indicates items used in final Generalized Attitude Toward Business and Advertising Scale.

Figure 2

Negative Cognitive Responses as a Function of Corrective Advertisement Sponsorship and Audience Attitude toward Business and Advertising



Note. F = Persons with favorable generalized attitudes toward business
UF = Persons with unfavorable attitudes
N = 110.

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