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Does Competitive Clutter in Television Advertising "Interfere" with the Recall and Recognition of Brand Names and Ad Claims?

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Abstract

This paper contrasts the effects of competitive clutter on the recall and recognition of information from ads for familiar brands. An experiment was conducted utilizing ads for the type of relatively familiar brands typically advertised on network television; the dependent variables were recall and recognition of brand names and ad claims. Results showed that brand name recall scores were substantially reduced by competitive clutter. However, exposure to competitors' ads had little effect on ad claim recall. These data are consistent with the view that information about familiar brands will tend to be compartmentalized in memory, reducing interference effects in attribute recall. Exposure to competitive clutter had relatively little effect on recognition task performance. Suggestions for future advertising research considering competitive interference and brand familiarity issues are provided.

Because marketers of competing brands tend to pursue similar demographic targets, ads for competing brands are often shown during the same television programs. Advertisers are becoming increasingly concerned about the impact of this *competitive* clutter (Kent, in press); their concerns appear to be justified by the observation of competitive interference in ad claim recall (cf. Burke and Srull 1988; Keller 1987, 1991).

Although the brands advertised in national media are often familiar to consumers, these studies were conducted with ads for highly or completely unfamiliar brands. Use of such methodology is not unusual: advertising researchers often generate and test theories that better describe the initial purchases of unfamiliar consumers than the more typical circumstance in which ads must influence ex-

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perienced consumers (Stewart 1992). Research should be extended to deal with the true complexity of marketplace advertising, in which consumers encounter ads for competing, familiar brands (Kent, in press). Toward this objective, we explore competitive interference with ads for known brands. Theories and data suggest that individuals will tend to compartmentalize information related to familiar brands in memory (Srull 1983); this may reduce or remove interference effects in attribute recall (see Srull and Brand 1983).

Memory for advertising has been assessed with only ad claim recall measures in the previous research. However, advertising researchers have long advocated recognition measures for use with television ads. Memory theories suggest that competitive clutter may differentially effect scores on recall and recognition tests of similar difficulty (see Postman 1976). The purpose of this research is to contrast the effects of competitive clutter on ad recall and recognition tests of comparable difficulty for familiar brands.

1. Background

1.1. Competitive interference in ad claim recall for familiar brands

Consumers are likely to be familiar with brands advertised on network television, because significant sales (and hence visibility) are typically required to advertise where production and media costs are so great. Empirical findings and theorizing suggest that information retained from ads for familiar brands will be organized around individual brands (cf., Lynch and Srull 1982; Pryor and Ostrom 1981). This brand-based organization may reduce interference in attribute recall (see Srull and Brand 1983).

1.2. Competitive clutter and recognition performance

Marketing researchers have criticized an over-reliance on recall measures in advertising research, and advocated the use of recognition measures (cf. Lynch and Srull 1982; Singh, Rothschild, and Churchill 1988). Theories of memory suggest that interference effects may be localized to recall measures (Postman 1976); therefore, exposure to competitive clutter may not affect scores on brand name and ad claim recognition tests which are of comparable difficulty to the recall tests.

1.3. Processing goals as moderators of proactive interference effects on recall

In Burke and Srull's (1988) study, the effect of retroactive interference was moderated by processing goals; proactive interference was not moderated. They concluded that "it is not yet clear whether the consumer's information processing

behaviors at the time of exposure can moderate this proactive interference effect" (p. 61). However, consumers who evaluate advertised brands may retain more pathways to brand information (Keller 1987), making them resistant to proactive competitive clutter effects.

2. Experimentation

An experiment structured around a 3 × 2 between-subjects, factorial design was conducted. The first factor involved exposure to competitive clutter; proactive and retroactive sets (see Burke and Srull 1988) plus a control condition were examined. The second factor involved a nonbrand versus brand processing goal manipulation; dependent variables were the recall and recognition of brand names and ad claims.

2.1. Advertising stimuli and competitive clutter manipulations

Seven noncomparative TV ads were selected for use as test ads. Two criteria were used in selecting these ads: 1) that the brands seemed representative of the range of relatively familiar brands advertised on network television, and 2) that the ads clearly emphasized one new claim. In pilot work, student subjects completed a three-item brand familiarity scale for each brand. The items, given in five-point semantic differential form, were: familiar/unfamiliar, inexperienced/experienced, and knowledgeable/not knowledgeable (Machleit, Allen, and Madden, in press). After reverse scoring, the reliability of the composite brand familiarity scale was .82. The selected ads featured the following brands (followed by their mean per-item familiarity score): Royal Caribbean (3.36), Actifed (3.88), Audi (3.86), Fuji, (3.47), Central Trust (3.08), Air Canada (3.26), and Makita (3.05).

Competitive interference was operationalized by exposing subjects to two competing ads for each test ad. The interference manipulations were contained in three tapes of thirty-three ads (i.e., retroactive, proactive, and noninterference tapes); all ads were thirty seconds. Each tape began and concluded with six common primacy/recency ads; the seven test ads appeared as every third commercial from the eighth until the twenty-sixth position. On the proactive tape, the competing ads appeared in the second and fourth positions prior to each test ad; on the retroactive tape, the same competing ads appeared in the second and fourth positions following each test ad. On the noninterference tape, ads for products in other categories were inserted in place of competing ads.

2.2. Processing goal manipulation

The second factor of the design involved a manipulation of "ad" versus "brand" processing goals, which are intended to resemble the processing actions of con-

sumers who vary in involvement and needs (see Burke and Srull 1988; Keller 1987). Subjects responded briefly in writing to one question during each ad; the short protocols were utilized in a manipulation check. Nonbrand processing items directed subjects to consider the aesthetic or executional features of the ad. Brand processing items asked subjects to consider the merits of the brand; this "high effort" set is intended to resemble the processing of involved consumers, although it may elicit unusually high attention levels in a lab setting, and thus inflate the recall and recognition scores.

2.3. Procedure and subjects

The subjects were led to believe that the processing questionnaire which they completed while watching the ads was the focus of the research, and that no additional measures would be forthcoming. Each videotape was seen by six groups of six subjects; half of the subjects in each group received each processing questionnaire. Thus, eighteen subjects were processed in each of the six experimental cells.

2.4. Measures

A repeated measurement procedure was utilized to increase precision. After subjects viewed the tape, they received unannounced retention measures in the following order: brand name recall, brand name recognition, claim recall, and claim recognition. The recall tests were given first to avoid prior exposure to the recognition response choices (see Singh, Rothschild, and Churchill 1988). Pilot work was first conducted to assess whether prior recall testing materially alters the outcome of recognition testing. Subjects viewed a tape of twenty-three commercials clearly making one claim, and completed four retention measures identical in construction to those utilized in the focal experiment in different orders. Results indicated that prior brand name recall testing had little effect on name recognition, and prior claim recall testing had little effect on claim recognition.

The brand name recall measures were cued with the product category (see Singh, Rothschild, and Churchill 1988), and given in the following form: "Please write down the brand names of all (videotapes) advertised on the tape." The claim recall measures asked subjects to "Please write down what was said or claimed about (Fuji videotape) in an ad on the tape"; subjects in the Keller (1987, 1991) and Burke and Srull (1988) experiments were also provided with brand name cues in the claim recall items.

Subjects were provided with product class cues in the brand name recognition items, and brand names in the claim recognition items. Recognition scores were corrected for false positives by subtracting the number of incorrect responses

from the number correct for each subject (Lynch and Srull 1982). A series of pilot studies were conducted to make the difficulty of the recall and recognition tests comparable. In these pilot studies, the difficulty of the recognition items was increased by increasing the number of distractor items until the recall and recognition scores for a common aspect of ad content (e.g., the brand name) were at similar levels. The recognition measures utilized in the focal experiment required subjects to identify brand names and ad claims from lists in which the correct responses were framed by nine distractors. Distractors in the brand name recognition items were names of other within-category brands; distractors in the claim recognition items were claims from ads for other within-category brands. No brand names or ad claims from interfering ads appeared among distractor items.

An example of the brand name recognition items was "Please identify the brand of videotape that was advertised on the tape" with these response choices: Maxell, Polaroid, TDK, Memorex, GAF, Kodak, BASF, Scotch, Fuji, and Sony. The claim recognition item for the ad was "Please identify what was said or claimed about Fuji videotape in an ad on the tape"; the response choices were claims from ads for videotapes.

With ten highly similar response choices, scores on the brand name recall and brand name recognition items were similar in the no-inteference condition (see table 1). For example, the brand name recall and recognition scores of subjects in the brand processing condition differed by less than 10 percent, as did their ad claim recall and recognition scores. These data demonstrate that ad recognition tests need not be substantially less difficult than recall tests assessing retention of the same information. Despite the high levels of attention likely elicited by the brand processing manipulation, there is little evidence of ceiling effects in the recognition data: across the experimental conditions, subjects recognized no more than 76 percent of the brand names, and no more than 48 percent of ad claims. The variability of the recognition scores is further suggested by the significant effect of processing on name recognition (see table 2). Summarily, these data suggest that an absence of interference in recognition should not be attributed to a large difference in difficulty relative to the recall, or to ceiling effects.

Table 1. Treatment means (standard deviations)

Interference type	Processing goal	Sample size	Brand name recall	Brand name recognition	Ad claim recall	Ad claim recognition
None	Non-Brand	18	4.44 (1.04)	5.05 (1.10)	2.11 (0.91)	2.83 (1.04)
None	Brand	18	4.94 (1.51)	5.33 (0.97)	3.05 (0.88)	3.27 (1.60)
Proactive	Non-Brand	18	3.05 (1.35)	4.22 (1.16)	1.83 (0.86)	2.94 (0.99)
Proactive	Brand	18	4.72 (1.27)	5.00 (1.37)	3.00 (0.91)	3.38 (1.41)
Retroactive	Non-Brand	18	2.88 (1.15)	4.50 (1.24)	1.72 (0.89)	2.55 (0.92)
Retroactive	Brand	18	4.66 (1.28)	5.05 (1.55)	2.83 (0.93)	2.77 (1.21)

Table 2. Effects of competitive clutter and processing goals on recall and recognition

Independent variable	Dependent variable	ANOVA results		
		F	df	Prob.
RECALL RESULTS				
Competitive Clutter	Brand Names	6.03	2,102	.001
	Ad Claims	1.06	2,102	.351
Processing Goals	Brand Names	31.07	1,102	.001
	Ad Claims	39.06	1,102	.001
Interaction	Brand Names	3.14	2,102	.047
	Ad Claims	1.06	2,102	.351
RECOGNITION RESULTS				
Competitive Clutter	Brand Names	2.03	2,102	.130
	Ad Claims	1.66	2,102	.196
Processing Goals	Brand Names	4.98	1,102	.027
	Ad Claims	2.47	1,102	.119
Interaction	Brand Names	.36	2,102	.697
	Ad Claims	.10	2,102	.906

3. Results

3.1. Processing goal manipulation check

Two judges examined a sample of the processing protocols for the test ads; a total of 210 randomly selected responses were judged. The judges were instructed to place the protocols into one of the following categories: nonbrand evaluation, brand evaluation, or "other"; inter-rater reliability was ninety-seven percent. Ninety-three percent of the responses to nonbrand processing items were placed by both judges into the nonbrand category; ninety-one percent of the responses to brand processing items were placed into the brand category. These data support the intended processing goal manipulation.

3.2. The effects of processing goals on recall and recognition

Brand processing appears to have increased both the recall and recognition scores (see table 1). The effects of processing goals on brand name and ad claim recall were statistically significant (see table 2) and large (omega squared values $> .18$). A smaller, significant effect of processing goals on brand name recognition was observed ($F(1, 102) = 4.98$, $p < .027$; $\omega^2 = .035$); the effect on ad claim recognition approached significance ($F(1, 102) = 2.47$, $p < .119$; $\omega^2 = .013$). These

data suggest that, despite concerns over variability, ad recognition scores can be affected by processing.

3.3. The effects of competitive clutter on recall

The effects of competitive clutter on brand name recall have not been previously examined. Competitive clutter substantially reduced brand name recall scores ($F(2, 102) = 6.03$, $p < .01$; $\omega^2 = .063$); a slightly stronger effect may have been produced by retroactive ($\omega^2 = .064$) versus proactive exposure ($\omega^2 = .053$), perhaps due to recency. Given that product category cues were provided in the brand name recall measures, these findings seem consistent with list length effects. Subjects in the interference conditions had seen ads for more brands which met the cue conditions (i.e., brands in the specified product category which were advertised on the tape), which may decrease the likelihood of recall of each brand name.

In previous research, substantial competitive clutter effects on claim recall were observed with ads for unfamiliar brands, and claim recall measures cued with the brand name (cf. Burke and Srull 1988; Keller 1987, 1991). However, little effect of competitive clutter on claim recall was observed with similar measures and ads for familiar brands in the present research ($F(2, 102) = 1.06$, $p < .35$; $\omega^2 = .002$). This finding is consistent with the idea that separate storage of information for familiar brands reduces interference in attribute recall. For example, subjects in previous studies likely stored information from ads for unfamiliar, competing brands in a common knowledge structure (cf., Alba and Hutchinson 1987; Pryor and Ostrom 1981). This structuring may have resulted in interference and confusions when subjects were given claim recall measures cued with the name of one of the brands. However, subjects in the present research likely retained information from ads for familiar brands in separate, brand-based structures (Srull 1983). When information is stored in this manner, the brand name cue should direct the search of memory to a knowledge structure containing only information related to the test brand, reducing interference.

3.4. Processing goals as a moderator of competitive clutter effects on recall

Brand processing largely removed the effect of competitive clutter on brand name recall (see tables 1 and 2). In the brand name recall data, an interactive effect of processing goals and competitive clutter was observed ($F(2, 102) = 3.14$, $p < .047$; $\omega^2 = .035$), as was a proactive interference effect for nonbrand processors ($F(1, 102) = 12.41$, $p < .01$; $\omega^2 = .072$). However, there was little evidence of a proactive effect for brand processors ($F(1, 102) < .5$; $\omega^2 = .001$). These data

indicate that processing goals at the time of ad exposure can moderate proactive interference effects.

3.5. The effects of competitive clutter on recognition

Exposure to competitive clutter had relatively little effect on recognition scores (see tables 1 and 2). Minor effects of competitive clutter were observed on both brand name recognition ($F(2, 102) = 2.03$, $p < .130$; $\omega^2 = .015$) and ad claim recognition ($F(2, 102) = 1.66$, $p < .196$; $\omega^2 = .012$). These data are consistent with the thinking that, independent of differences in difficulty and ceiling effects, recognition of ad content is less affected by exposure to competitors' ads than recall.

4. Discussion

4.1. Limitations

Several limitations of the methodology should be acknowledged. As in previous studies, subjects were exposed to a set of ads without programming, and were tested with little delay. Inteference effects might differ within programming, or after more realistic delays. A limitation which is unique to the use of familiar brands is that some subjects may have previously seen other (or even these) ads making the tested claim. Because we could not produce ecologically-valid television ads, and inteference effects may vary between media (see Smith and Buchholz 1991), we used real television ads making claims which we felt were novel for familiar brands. Still, our results may be affected by some subjects' exposure to ads making the experimental claim. However, the results would remain relevant to practice, because ads often reinforce known claims for familiar brands (Stewart 1992), and seldom make completely unfamiliar claims (Kent, in press).

4.2. Implications

Relative to previous findings, little effect of competitive clutter on ad claim recall was observed. This finding is consistent with the notion that information about relatively familiar brands may be stored in separate categories, reducing competitive clutter effects. Thus, familiar brands may have an advantage in highly competitive television advertising: the memorability of ads for well-known brands may be less affected by competitive clutter.

The data of the present research also suggest that the impact of competitive clutter on memory depends upon the retrieval activity examined: brand name recall was reduced, although scores on brand name recognition tests of compa-

rable difficulty were less affected. These findings suggest that marketers of brands in heavily advertised, low involvement categories should consider switching from recall to recognition measures. This is because when recall tests are used, ads may have to be repeated to overcome competitive clutter effects which do not correspond with a reduction in consumers' ability to recognize ad information at the point of purchase.

4.3. Issues for future research

Brand familiarity effects deserve greater attention in advertising research, particularly in studies of memory for advertising. Given that consumers typically make their choices among familiar brands, and that marketplace advertising must therefore act to reinforce such repeat buying (Stewart 1992), ad researchers should begin to address familiarity issues in theoretically-based research (see Machleit, Allen, and Madden, in press).

The effects of claim distinctiveness versus similarity in competitive advertising encounters should also be examined. Particularly for low-involvement products, the relationship between brand familiarity and the confusion of similar claims or executions is an interesting and relevant topic for future research. For example, consumers may believe that a vividly memorable ad that made a nondistinct claim for a "number two" brand (such as the Energizer Bunny ad) actually promoted the leading brand. This effect is suggested by the fact that early in this campaign 40% of consumers who selected the "bunny" ad as the most outstanding commercial they could recall were highly confident that it featured the best-known brand, Duracell (see Lipman 1990). Ad researchers should begin to explore such phenomena, which occur as consumers are exposed to large numbers of ads for competing, familiar brands, and retrieve ad information in contexts with differing cues available (e.g., in testing versus at the point of purchase).

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