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### HOW AFFECTIVE vs. INFORMATIVE NEWSPAPER ADVERTISEMENTS BIAS THOUGHTS AND MEMORIES

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## Abstract

Newspaper advertisements can be fine-tuned so that the message execution determines what thoughts readers will have. Two kinds of execution strategies were studied: the informative execution--offering factual data about the product and advertiser--and the affective approach, which includes fewer facts and relies on emotional creative themes and pictorial elements to communicate its message. This experiment found that the affective execution yields better top-of-mind recall of newspaper ads seen the previous day. If the advertiser's intent is to instill memories of the ad, itself, in order to maintain top-of-mind awareness, affective executions should be used. If the intent is to foster thoughts about the product's and seller's attributes, an informative execution works better.

An inescapable reality of advertising is that effectiveness relies entirely on memory. Thus, the ultimate effect of, say, a print advertisement is dependent on consumer storage and later retrieval from memory of the kinds of feelings, thoughts or information that are consistent with the intent of the advertising message. What message strategies are more effective in this respect? More specifically, do advertisements with a predominantly factual, rational message execution achieve this effect better than those with an essentially affective, emotional execution?

Kotler (1983) notes that the message execution aspect of creative strategy deals with how a message is communicated. Executing the message invokes four key variables: execution style (e.g. emotional, factual, image-based, fantasy-based, lifestyle-based, testimonial-based), tone (e.g. positive, humorous, lighthearted, serious, somber), words in the copy, and mechanical elements (e.g. type face, color, illustrations, spatial arrangements within the ad). These variables are, of course, interrelated and an ad that uses, say, an emotional message execution often relies on all of these elements to achieve it.

Informative, factual executions are supposed to foster cognitive reactions in the audience ("I buy most of this ad's arguments about the dangers of drinking and driving"), while emotional, affective executions are supposed to evoke emotional responses--not only liking-disliking ("The pictured results of drinking and driving are repulsive"), but also reactions to the ad, itself ("I adore that koala bear spokesman for QANTAS airlines"), and moods and feelings like excitement, joy, sadness, warmth, fear, anger (cf. Batra and Ray 1986; Hill and Mazis 1986; Holbrook and Batra 1987; Holbrook and O'Shaughnessy 1984; Kroeber-Riel 1979; Lautman and Percy 1984; Mitchell 1986;

Stout and Leckenby 1984).

Which of these two message executions with its attendant psychological response to the ad works better to evoke the thoughts that the advertiser wants to elicit, using the print medium? Our review of the research on this problem revealed two things: the answer is much less straightforward than expected; and not much has been reported for the print medium.

Although several studies have addressed the message execution problem with television commercials as stimuli, only a few have used print stimuli, and in many cases these were hypothetical, not real, advertisements. Where actual print ads were tested, they typically were limited to four-color magazine ads, usually in full-page format. Yet, the newspaper is a vehicle for a huge proportion of print advertisements, most of which are in black ink and in smaller than full-page format. Finally, some studies did not employ a between-subjects design and, thereby, may have compromised their internal validity.

The purpose of our study was to add to the literature on affective vs. informative message executions and their effects on thoughts, recall and evaluations of print ads in newspapers. We used a between-subjects experimental design in trying to determine these effects.

#### **Effectiveness of Emotional vs. Factual Executions**

##### **Television Commercials**

Ray and Batra (1983) offered reasons why emotional ads (presumably, those with higher arousal potential) should be more effective and memorable than ads without emotional overtones: consumers may pay greater attention to emotional ads, affect may enhance the extent to which consumers process items contained in the appeal, affective content leads to more favorable evaluations of the

advertisement, and affective cues or components in the message may be recalled more easily.

Golden and Johnson (1983) reported that consumers thought that "thinking" (compared to "feeling") television commercials are more likable, provide more useful information, and give greater motivation to purchase. Goldberg and Gorn (1987) argued that informational advertisements lack stimuli eliciting cues and this limits the positive/negative thoughts consumers retrieve. In contrast, emotional ads have numerous personal cues and this increases the chance of eliciting personal thoughts related to cues in the advertisement. When they tested this proposition with both informational and emotional TV commercials, more information was recalled for informational advertisements than for emotional ones. Yet, respondents felt happier when viewing emotional commercials, they rated emotional commercials as more effective, and emotional commercials resulted in higher purchase intentions.

Others have also reported that audiences liked emotional (as opposed to neutral) television commercials more and judged them as more influential (Friestad and Thorson 1986), though Hill and Mazis (1986) found no inherent liking or disliking of emotional or factual executions.

Friestad and Thorson's (1986) subjects viewed emotionally intense and emotionally neutral TV commercials and, six to eight weeks later, were asked to recall everything they could about the commercials. Emotional messages were more likely to be recalled than neutral ones and led to higher levels of recall for product category and brand name. This latter finding evidently flies in the face of the common belief among advertising practitioners that emotional commercials "don't recall well" (Zielske 1982).

By contrast, Edell and Burke (1987, p 423), argued that "An ad that

elicits no feelings from viewers, however, may be effective if it provides information to the viewer." Also, it appears that some forms or levels of arousal may not be related to recall. Studies using commercials with a warm (i.e., tender, warmhearted, sentimental) execution strategy showed that the feeling of warmth generated by a commercial was not positively associated with recall (Aaker, Stayman and Hagerty 1986). This may have occurred because the arousal level was too weak or the changes (from a baseline state) in feelings evoked by these commercials were not dramatic (cf. Choi and Thorson 1983).

#### Print Stimuli

Several studies have been reported in which print stimuli were employed to examine the effects of informational and emotional executions for advertisements. Lutz and Lutz (1977) reported that interactive pictures enhanced recall of print advertisements while non-interactive pictures (pictures separated from the brand name) generated recall no better than that achieved with verbal-only advertisements. In a partial replication of the Lutz and Lutz study, Biron and McKelvie (1984) found that picture conditions resulted in superior recall to verbal conditions even when the illustrations and verbal portions were separated. Childers and Houston (1984) examined the role of interactive pictorial stimuli in which verbally presented brand names were accompanied by pictures that directly portrayed the brand name. They found that pairing pictures with verbal brand names enhanced brand name recall when people were engaged in sensory but not semantic processing. But after a two-day delay the picture conditions yielded better recall in both sensory and semantic conditions. Dickson et al. (1986) reported that illustrations added to print advertising copy enhanced belief formation and attitude toward the product. In contrast, Kisielius and Sternthal (1984) reported that

instructions to image and the presence of story board illustrations lowered subjects' favorable judgments about a fictitious brand of shampoo.

The evidence favors the superiority of the emotional execution for TV commercials and print advertisements. "Thinking" TV commercials were reported as more informative and likable by Golden and Johnson (1983), and Goldberg and Gorn (1987) reported greater information recall for informative commercials than for emotional ones. Kisielius and Sternthal (1984) concluded that a message execution without illustration for print advertisements was superior. Conversely the arousal evoked by emotional (pictorial, colorful, musical, subjective) elements and cues produced stronger effects and recall in a number of studies employing television commercials as stimuli (Edell and Staelin 1983; Friestad and Thorson 1986; Keller 1987; Kroeber-Riel 1979; Ray and Batra 1983; Srull 1983; see also Dutta and Kanungo 1975). With print stimuli, the emotional execution was found to be superior by Lutz and Lutz (1977), Biron and McKelvie (1984), Childers and Houston (1984), and Dickson et al. (1986). No studies were found which examined this issue for black-ink newspaper advertisements.

### Objectives and Hypotheses

This study compared the types of immediate thoughts and memories stemming from shoppers' exposure to black-ink newspaper advertisements in two message executions: high affect-low information content (affective ads) and, for the same products, high information content-low affect (informative ads). The effects of these two executions on day-after recall and the ad's likability, attractiveness, understandability, informational sufficiency, and ability to entice were also assessed. The two executions were based on Holbrook's (1978, p. 547) definition of factual content as "logical, objectively verifiable

descriptions of tangible product features" and emotional ("evaluative") content as "consisting of emotional, subjective impressions of intangible aspects of the product" featured in the communication. Since no advertisement is entirely devoid of either type of content, our focus was on the impact of ads that emphasized one execution over the other, as determined by a content analysis of each ad which captured factual vs. emotional elements.

Cognitive and affective responses to print ads can be measured at two points in time. First, one can analyze the content of a shopper's reactions (verbalized thoughts and emotions) immediately upon studying the ad--we shall call this immediate thoughts. Second, one can assess the content of what was remembered by the shopper, say, 24 hours later--call it day-after thoughts. In this study, after showing newspaper ads to shoppers in a mall, we analyzed the content of thoughts occurring right after exposure, and thoughts mentioned a day later.

Guided by the findings of other researchers, the predictions of this study were that the two message executions have different effects on (a) recall; (b) type of thoughts occurring immediately or a day later; and (c) evaluations of the ads:

- H<sub>1</sub>: The incidence of recall of the advertisement and advertiser's identity is greater for affective ads than for informative ads.
- H<sub>2</sub>: Affective ads generate more thoughts about the advertisement; informative ads generate more thoughts about the product.
- H<sub>3</sub>: Affective ads generate more thoughts about the product's attraction or interest; informative ads generate more thoughts about the product's brand name, tangible attributes, quality/value, or benefits/uses.
- H<sub>4</sub>: Affective ads generate more thoughts about the advertisement's attention-getting properties, effectiveness, or arousal properties; informative ads generate more thoughts about the ad's informativeness, mechanical elements, or words.

- H<sub>5</sub>: Affective ads and informative ads generate thoughts about the advertiser with equal frequency.
- H<sub>6</sub>: Affective ads generate positive (as opposed to negative) thoughts more frequently than do informative ads.
- H<sub>7</sub>: Shoppers' ratings of an ad's likability, attractiveness, understandability, and ability to entice are higher for affective ads than for informative ads.
- H<sub>8</sub>: Shoppers' ratings of an ad's informational sufficiency are higher for informative ads than for affective ads.

### Method

#### Newspaper Advertisements

Two advertisements were used for each of six products. In each pair, one ad embodied the informative message execution and a second ad the affective execution. Over a period of several weeks, we reviewed advertisements appearing in a daily newspaper serving a city of 100,000 inhabitants in order to identify ads that would represent either informative or affective executions. More than 50 such advertisements were initially considered. Next, we made trial attempts to revise each ad so that it represented the opposite execution by removing or adding facts, or removing or rearranging pictures and graphic elements. For example, to convert an affective execution into an informative one, we deleted or modified its pictorial elements and added facts about the product or seller. Eventually, 12 advertisements and their matching opposite executions were contemplated. However, mindful of the need to obtain contrasting executions in advertisement pairs, cover a variety of product types and keep the demand on a respondent's time reasonable, six pairs of newspaper ads were finally selected for the experiment. The advertised products were women's fashion watches, men's apparel, hearing aids, a driving school, pizza, and a camper van.

The newspaper's art department cooperated by producing finished ads from mock-ups of our modified execution of each advertisement. These and the original ads were then printed on newsprint with unrelated text on the reverse, so each ad appeared to have been cut out of a newspaper. Figure 1 is an example of a matched pair of affective and informative ads.

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Figure 1 about here

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Manipulation Checks. One method for obtaining relative informativeness scores for print ads is Liefeld's (1985) Informativeness Index, based on content analysis. The number of pieces of information present in an advertisement are counted. A piece of information is defined as any objective or factual datum which could be used by consumers to reduce uncertainty in their choice, purchase option, or use of a product or service. This index was used to quantify the informativeness of each advertisement and to confirm that the two executions within each pair differed in informativeness. The index scoring was done independently by the authors and by students who were familiarized with the procedure. The results are shown in Table 1.

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Table 1 about here

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For two advertisement pairs (women's watches and driving school), the decision was made to use ads where the informativeness scores within pairs were similar, but that differed on the affective dimension because pictorial elements had been removed or rearranged. Thus, two ad pairs differed not in informativeness, but only in affect, whereas four ad pairs differed in

informativeness and affect. We wanted to determine whether manipulation of only one dimension of affective vs. informative executions would result in smaller differences between these pairs on the dependent measures.

An objective measure of the degree of affect present in each print advertisement was not available to us. To check for affect subjectively, 16 university students were asked to examine each ad pair and to pick the one which aroused their emotions more. Out of 96 such comparisons (16 x 6), in 95 of them the affective execution was chosen over the informative execution as the more emotionally charged of the two. These manipulation checks supported our conclusion that treatment contrasts on the affect dimension and, in four of six ad pairs, on the informativeness dimension were sufficiently clear-cut for the purposes of this study.

#### Experimental Design

Over a 10-day period, shoppers were intercepted in a mall located in the same city served by the daily newspaper. Screening criteria excluded people under the age of 21 and those working in the mall. Quotas were applied for sex (50/50) and age. Of 669 people approached, 325 met the screening criteria and completed a self-administered questionnaire about the stimulus ads, inside an interviewing booth. Subjects were later asked for their telephone number "if for some reason we need to get in touch with you about this study."

A balanced, between-subjects design was used and a subject was shown only one execution from each of the six ad pairs, but, in total, saw three affective and three informative executions. The six ads seen were mounted on six separate pages in a ring binder. The 12 binders prepared for the experiment represented 12 permutations of presentation order of affective and informative executions for the six products. Binders were rotated within age

and sex quotas, to negate any order-of-presentation effect.

### Dependent Variables

Immediate Thoughts. Immediately after examining an ad, and before turning to the next one, the shopper answered a question asking for a listing of all thoughts about the ad (open-ended).

Ad Evaluations. The same ad was then rated on five 10-point, bi-polar scales (listed in order of appearance on questionnaire): "I like/dislike the ad," "The ad is/is not attractive," "...is easy/difficult to understand," "...tells/does not tell me what I need to know to make a choice," and "...makes/does not make me want to buy the product." Shoppers also reported (on a 10-point scale) their interest in the product shown. To control for familiarity with the ad or product, subjects were asked (yes/no) whether they had ever seen the ad and whether they had shopped for or purchased an item similar to the one shown, within the past four months.

Day-After Recall and Thoughts. The following day, subjects were reached by telephone and asked to confirm that they had been interviewed in the mall. Unaided recall measures recorded which ads were remembered; for each ad mentioned, subjects were asked to describe what they could remember about it (thoughts; open-ended) and whether they could recall the identity of the advertiser or seller. For each ad not spontaneously mentioned, recall was aided by asking "Do you remember an ad for (product)?" If yes, data were obtained on thoughts and advertiser's identity.

To the open-ended immediate thoughts and day-after thoughts, we applied the following coding scheme which categorized comments related to the product, ad, and advertiser:

- 1) Comments about the product: Liking/disliking; interest/no interest;

brand name; tangible attributes; quality/value; benefits/uses; other.

- 2) Comments about the ad, itself: Attention-getting aspects; effectiveness; arousal aspects; informativeness; mechanical elements; words; other.
- 3) Comments about the advertiser: Tangible attributes of the seller's establishment; intangible attributes of the seller; other.

Comments not specific to the product, ad, or seller, and unclassifiable responses were coded separately. Comments in all categories were additionally coded as having a positive, negative or neutral valence. All comments were independently coded by two graduate students and the codes later compared. Variances were resolved by discussion between coders and one of the authors.

### Analysis

Of the 325 shoppers who completed questionnaires in the mall, 234 were reached by telephone to conclude the day-after recall phase.

For the tests of  $H_1$ , treatment differences in the incidence of day-after recall of, (a) the six advertisements, and (b) the identity of the advertiser were tested with univariate chi-square analyses of the frequencies summed across the six ads. To test  $H_2$  to  $H_6$ , we used frequency crosstabulations to analyze more than 10,000 thoughts (immediate and day-after) by experimental treatment, by product, and by type and valence of thought. So as to avoid capitalizing on chance, we considered the overall pattern and direction of numerous tabled differences (after testing for significance with a chi-square analysis) in order to determine whether or not a hypothesis was supported.

Finally,  $H_7$  and  $H_8$  were tested for each product. We applied multivariate analysis of variance to the ratings of an ad's likability, attractiveness, understandability, informational sufficiency; and ability to entice--with message execution serving as the two-category independent variable, while

interest in the product served as a covariate.

## Results

### Day-After Recall

Unaided Recall of the Ad. Of 234 shoppers, 230 could mention at least one of the advertisements they had seen a day earlier in the mall. The incidence of unaided recall of a second and third ad was 224 and 201 shoppers, respectively, diminishing to 140, 71 and 21 people for four, five and six ads.

Table 2 gives the frequencies, by ad execution, for the first-recalled ad and also the incidence of ad mentions--in any order. For every pair of ads, the affective version was recalled first (i.e., top of mind) more often than the informative execution, and this overall tendency was statistically significant. No consistent treatment effect is discernible when mentions in any order are counted. Since top-of-mind recall of a brand is often a dearly sought goal among advertising agencies and their clients, these findings imply that marketers aiming deliberately for top-of-mind awareness should prefer affective rather than informative message executions for their advertisements.

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Table 2 about here

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Recall of the Advertiser. Frequencies of whether or not subjects could recall the identity of the advertiser or seller were examined for all ads spontaneously recalled, and for all ads remembered after aiding. Analyses of advertiser recall by message execution, similar to those reported in Table 2, revealed no consistent or significant differences due to experimental treatment.

Hypothesis 1, therefore, was only partially supported: an affective

message execution works better than an informative execution for top-of-mind recall of a newspaper advertisement, but for recall of the advertiser's identity, both executions produce the same results.

#### Immediate and Day-After Thoughts

Table 3 summarizes the results of testing  $H_2$  to  $H_6$ . All of these tests represent the results of a type-of-thought by ad-execution crosstab. In line with the day-after recall analyses, both immediate and day-after thoughts are broken down by the shopper's first-occurring thought, and first three thoughts, as written down or mentioned on the telephone. In addition, for the day-after thoughts, separate (thought-type by ad-execution) crosstabs were generated for spontaneously recalled ads and for ads remembered after aiding. These unaided and aided results have been combined to produce one hypothesis test result in each row of the last two columns in Table 3.

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Table 3 about here

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In reporting the 120 (5 hypotheses x 6 ad pairs x 4 thought tests) chi-square significance test results to generate Table 3, an alpha level of .05 could yield six significant differences by chance. Of the 38 significant results reported in the table, 32 are in the hypothesized direction. We note, however, that crosstabs which count a shopper's first three thoughts inflate the  $n$ 's in a table and make a significance test suspect. The reader should bear this in mind when interpreting the columns for first three thoughts; perhaps, the direction of the observed effect is more appropriate here.

Examining the findings for  $H_2$  that affective ads generate more thoughts about the ad than the product, and conversely for informative ads, 19 of the

24 test results are in the hypothesized direction. There are two significant reversals when immediate thoughts are analyzed. In the pizza ads, the affective dimension had been manipulated by including/removing a picture of the product, and this may have cued subjects to have product-related immediate thoughts--like commenting on the toppings shown--even though there was less verbal product information in the affective execution. Note that this effect disappears in day-after thoughts. Recall that the women's watches ads did not differ in informativeness but only in affect. To achieve a difference in affect, we rearranged the pictorial content to make it look more formal and serious in the "informative" execution, while the affective illustration looked more buoyant and playful and the copy mentioned words like "Time for fun. Liberate your wrist forever! Wear a watch that snaps on. Pops up. Twists 'round" (words omitted from the other version), and this difference in copy may have prompted subjects to have more product-related immediate thoughts and day-after first thoughts for the affective ad and fewer such thoughts for the informative ad.

With these two exceptions, H<sub>2</sub> was supported. Affective newspaper ad executions generate more thoughts in readers about the ad than about the product advertised, while informative executions foster more thoughts about the product than about the ad, itself.

H<sub>3</sub> was not supported. Looking across the columns in Table 3, there is no consistent pattern of effects due to ad execution, for any of the ads tested. We expected that an affective execution of a newspaper ad would cue thoughts about liking/disliking the product or its interest to the reader, whereas an informative execution would direct the reader's thoughts to the product's brand name, tangible attributes, quality, and benefits, but conclude that

neither execution succeeds better at directing these two kinds of thoughts about the product.

The picture that emerges from tests of  $H_4$  is quite different. In 21 out of 24 tests, the differential effects of affective vs. informative executions are in the hypothesized direction. Affective newspaper ads tend to succeed better than informative ads in directing the reader's thoughts to the ad's ability to draw attention, evoke emotions and be effective; informative executions do a better job of steering thoughts toward the informativeness of the message, the wording of the copy, and the mechanical elements of the ad format. Thus, the more information you put into a newspaper ad (and the less it relies on affective elements), the more readers will focus on and remember whether the ad tells them enough about the product, what the copy says about it, and what format elements (type face, illustrations, spatial layout) were used--the latter presumably because a lack of strong, and potentially distracting, affective elements makes the reader focus on mechanical aspects.

$H_5$ , that affective and informative executions of a newspaper ad are equally effective in stimulating thoughts about the advertiser, was not adequately tested. We were caught off guard by the smaller than expected incidence of thoughts about the advertiser for every ad pair. Although none of the tests showed a significant difference between ad executions, which is what this hypothesis predicts, the tabled frequencies were generally too small for meaningful analysis and we prefer to suspend judgment.

$H_6$  is that affective ads will stimulate positive thoughts (of any kind) more often than will informative ads. This hypothesis is substantiated by the results in Table 3: 20 out of 24 test outcomes are in the hypothesized direction. The informative message execution fosters thoughts about the degree

of informativeness and wording of the copy ( $H_4$ ). Such thoughts are likely to be more evaluative, rational and critical and, therefore, one would expect a greater mix of positive and negative thoughts than for the affective execution which focuses on feelings and emotions (generally positive).

#### Evaluations of the Ads

Table 4 shows the six MANOVA results for shoppers' ratings of the ad pairs. Initial tests revealed that ad ratings were not related to sex and age, but interest in the advertised product did correlate with these ratings. Thus, interest was included in the models as a covariate and it was significant in all ANOVAs. The predictions of  $H_7$  that the affective execution would be evaluated more favorably than the informative one on likability and attractiveness are confirmed for five of the six ads; its predictions that the affective execution also rates higher than the informative one on understandability and ability to entice are borne out for three ads. The driving school ad pair (which did not vary in informativeness [Table 1], but only in affective elements) produced the only reversal of  $H_7$ , since the informative execution was easier to understand than the affective one. In retrospect, the affective version looks more cluttered with a halftone illustration, headlines, several typefaces, and copy in small type; the informative ad has no illustration, is crisper and the copy uses bullets to list the same information in a bold typeface about twice the height. With the exception of these driving school ads, every ad pair showed the expected differences due to message execution on at least three of the four evaluations under  $H_7$ . Overall, the findings and direction of effects support the notion that an affective message execution is liked more, is more attractive, is easier to understand, and makes the reader want to buy the product more than

an informative message execution.

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Table 4 about here

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Finally,  $H_0$  was not confirmed. Our findings on shoppers' ratings of informational sufficiency were, to summon an oxymoron, mildly astonishing. Replacing affective elements with more facts about the product/seller/advertiser did not result in any greater perception that "The ad tells me what I need to know to make a choice." Although this finding would be expected for women's watches and driving school whose ad pairs do not vary on the Informativeness Index (Table 1), the remaining ad pairs clearly differed on this index but did not produce differences in ratings. The exception (and sole reversal of  $H_0$ ) was the pizza ad pair, where the affective execution, with fewer pieces of information, was rated higher on informational adequacy. Obviously, shoppers felt that neither ad execution fully offered the information that they needed to make a choice, but neither was completely devoid of such information (note that all means are very close to the scale midpoint of 5.5). We speculate that, even after factual material is added, the reader and prospective customer wants more information before making a choice. This and the previous findings imply that newspaper advertisers should worry less about having enough decision-making information in their ads (since prospects will seek additional data, anyway, before making a choice) and focus on affective elements to improve memorability, understanding, desire to buy, and identity of the seller.

#### Conclusion

Several researchers have reported that strongly arousing, emotional elements

in television and print ads generate better recall and superior attitudes than do ads without these themes. This study found similar effects for black-ink newspaper ads, using a between-subjects design for greater internal validity. The external validity of the experiment could be questioned on the grounds that the mall shoppers interviewed knew they were participating in a study on newspaper ads. On the other hand they did not know our hypotheses and were not expecting to be questioned about what they remembered a day later.

Focusing on two major message executions for newspaper ads, we studied the distinct effects of affective ads--which rely on emotional creative themes and pictorial elements--and informative ads that substituted affective elements with choice-relevant facts about the product and advertiser. The affective execution generates better top-of-mind recall of a newspaper ad seen the previous day, but does not improve recall of the advertiser. If the advertiser's intent is to instill memories of the ad, itself (e.g., positive recollections, pleasant associations, surprise, shock, vivid images), in order to maintain, say, top-of-mind awareness of the establishment or brand, affective executions should be used. If the intent is to foster thoughts about the product (e.g., focus attention on product attributes, invite inquiries, provide buying tips), an informative execution is preferable because this type of ad tends to stimulate thoughts about the product.

The advertiser limited to the newspaper as a vehicle for promotional expenditures can improve the understandability and persuasiveness of the message by choosing an affective execution for the message, provided it is relatively straightforward and brief. Typical of this approach is an anti-smoking print ad that pictured a revolver loaded with cigarettes instead of bullets--very direct; powerful imagery; simple message.

TABLE 1

Mean Informativeness Index Scores for Six Pairs of Advertisements

Advertisement	Scored by the Authors		Scored by Students*	
	Informative	Affective	Informative	Affective
Men's Apparel	17	2	11 (5.8)	7 (3.5)
Hearing Aids	10	1	11 (2.5)	4 (2.0)
Camper Van	11	4	16 (2.8)	9 (2.4)
Pizza	10	4	11 (3.7)	8 (3.5)
Driving School	9	9	11 (3.3)	11 (2.7)
Women's Watches	7	7	12 (3.1)	13 (2.9)

\*Standard deviations in parentheses

TABLE 2

Incidence of Unaided First-Recalls and Recalls in Any Order, by Ad Execution  
(Partial Test of  $H_1$ )

Advertisement	First-Mentioned			Mentioned in Any Order		
	Informative	Affective	Total	Informative	Affective	Total
Men's Apparel	10	23	33	89	88	177
Hearing Aids	13	23	36	68	79	147
Camper Van	14	23	37	104	67	171
Pizza	23	36	59	82	82	164
Driving School	10	14	24	55	51	106
Women's Watches	16	25	41	59	77	136
Column Totals	86	144	230	457	444	901
Chi Square (on totals)	7.43; df = 1			0.09; df = 1		
Significance	.01			ns		

TABLE 3

Results of Hypothesis Tests by Ad, Immediate Thoughts &amp; Day-After Thoughts

		Immediate Thoughts		Day-After Thoughts	
Hypothesis	Advertisement	First	First Three	First	First Three
H <sub>2</sub> :	Men's Apparel	+	+	+	+
Thoughts about	Hearing Aids	+	+	+	+
the ad vs.	Camper Van	+	+	+	+
thoughts about	Pizza	-	-	+	+
the product	Driving School	+	+	+	+
	Women's Watches	-	-	-	+
H <sub>3</sub> :	Men's Apparel	+	+	+	-
Thoughts about	Hearing Aids	-	+	-	-
differing aspects	Camper Van	-	-	+	-
of the product	Pizza	+	-	+	0
	Driving School	+	+	0	0
	Women's Watches	-	-	+	+
H <sub>4</sub> :	Men's Apparel	+	+	+	+
Thoughts about	Hearing Aids	+	+	+	+
differing aspects	Camper Van	+	+	+	+
of the ad, itself	Pizza	+	+	+	-
	Driving School	+	+	0	+
	Women's Watches	-	+	+	+
H <sub>6</sub> :	Men's Apparel	+	+	+	+
Positive thoughts	Hearing Aids	+	+	+	+
vs. negative	Camper Van	+	+	+	+
thoughts	Pizza	+	+	-	0
	Driving School	+	-	+	+
	Women's Watches	+	-	+	+
H <sub>5</sub> :	No significant results for any ads or thoughts; frequencies generally too small for meaningful analysis				
Note: + + = Effect in hypothesized direction (p < .05, two-tail)					
+ = " " " " , but n.s.					
- - = Opposite to " " (p < .05, two-tail)					
- = " " " " , but n.s.					
0 = No discernable direction of effect					

TABLE 4

MANOVA Results for Shopper Evaluations of Six Advertisement Pairs

Advertisement	MANOVA Result	Test of H <sub>7</sub>				Test of H <sub>8</sub>
		Lik- ability	Attrac- tiveness	Under- stand- ability	Ability to Entice	Informa- tional Suffi- ciency
Men's Apparel	F = 7.59*	26.89*	38.31*	2.92	17.81*	0.48
Informative Mean		4.5	4.2	7.1	4.0	5.6
Affective Mean		6.3*	6.4*	7.7	5.5*	5.3
Hearing Aids	F = 10.61*	20.62*	39.70*	13.22*	1.24	1.69
Informative Mean		4.8	4.1	6.0	4.2	5.3
Affective Mean		6.4*	6.4*	7.4*	4.7	5.8
Camper Van	F = 6.41*	21.50*	22.53*	19.60*	12.09*	1.90
Informative Mean		5.6	5.5	6.9	4.2	5.4
Affective Mean		7.1*	7.0*	8.3*	5.5*	4.8
Pizza	F = 6.38*	9.70*	26.65*	0.30	11.23*	4.26*
Informative Mean		4.9	4.2	6.9	4.9	4.5
Affective Mean		6.0*	5.9*	6.7	6.1*	5.4*
Driving School	F = 10.46*	1.17	1.26	27.00*	1.08	1.24
Informative Mean		7.0	5.9	8.7*	6.3	6.1
Affective Mean		6.6	6.3	7.1	6.0	5.6
Women's Watches	F = 3.14*	5.91*	12.95*	5.04*	0.97	0.38
Informative Mean		5.2	5.2	6.8	4.0	5.3
Affective Mean		6.2*	6.5*	7.6*	4.5	5.6

\*p < .05 for F-ratios and for differences in means (Duncan's Multiple-Range Test)

FIGURE 1

Example of a Matched Pair of Affective and Informative Message Executions

**Enjoy the convenience of home  
wherever  
you chance  
to roam.**

Your Vanagon GL Camper will provide comfortable living space inside. With a stove, fridge, sink, table and more. Closets for storage. And beds for four. And whether you travel near or far, you'll enjoy driving, just like a car.



**Vanagon  
GL Camper**

Take a test drive soon.

**Crosby Volkswagen Ltd.**  
2500 King St. E., Kitchener  
**745-6881**

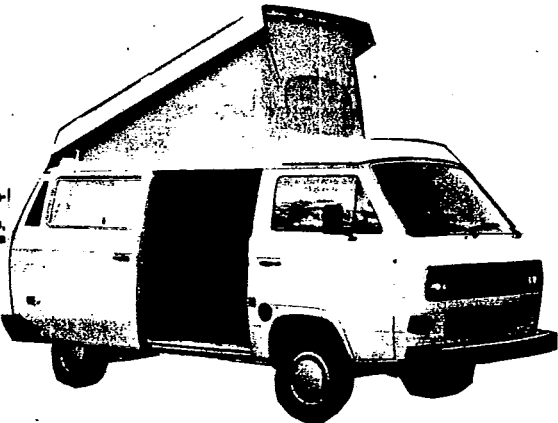
**"Camper Van Facts"**

Available in 4 speed manual and 3 speed Automatic

FUEL ECONOMY	L/100 KM	MILES/GALLONS
<b>4 SPEED MANUAL</b>		
City	14.8	18.8
Highway	12.7	12.7
<b>3 SPEED AUTOMATIC</b>		
City	15.8	17.2
Highway	13.8	20.0

\*2.1 L. or 129 in. in 4 cylinder engine  
\*Front disc brakes, self-adjusting rear drum brakes  
\*Rack and pinion steering  
WARRANTY: 24 Month, unlimited mileage or purchase extended warranties of 3 year, 80,000 Km. or 4 year, 100,000 Km.\*  
\*The plan covers most major components like the engine, transmission, steering, brakes, electrical system and air conditioning, just to name a few. It also includes towing and replacement vehicle assistance.

Your Vanagon GL Camper will provide comfortable living space inside. With a stove, fridge, sink, table and more. Closets for storage. And beds for four. And whether you travel near or far, you'll enjoy driving, just like a car.



**Vanagon  
GL Camper**

Take a test drive soon.

**Crosby Volkswagen Ltd.**  
2500 King St. E., Kitchener  
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## References

- Aaker, David A., Douglas M. Stayman and Michael R. Hagerty (1986), "Warmth in Advertising: Measurement, Impact, and Sequence Effects," Journal of Consumer Research, 12 (March), 365-381.
- Batra, Rajeev and Michael L. Ray (1986), "Affective Responses Mediating Acceptance of Advertising," Journal of Consumer Research, 13 (September), 234-249.
- Biron, J. and S. McKelvie (1984), "Effects of Interactive and Noninteractive Imagery on Recall of Advertisements," Perceptual and Motor Skills, 59, 799-805.
- Childers, Terry L. and Michael J. Houston (1984), "Conditions for a Picture-Superiority Effect on Consumer Memory," Journal of Consumer Research, 11 (September), 643-654.
- Choi, Y. and Esther Thorson (1983), "Memory for Factual, Emotional, and Balanced Ads Under Two Instructional Sets," in Proceedings of the 1983 Conference of the American Academy of Advertising, A.D. Fletcher, ed., Knoxville, TN: University of Tennessee.
- Dickson, P., R. Burnkampt, P. Miniard and H. Unnava (1986), "If It Isn't a Duck Then Why Did It Quack? Competing Explanations for an Observed Effect of Illustrations in an Advertisement," in Advances in Consumer Research, Vol XIII, Richard J. Lutz, ed., Provo Utah: Association for Consumer Research, 153-157.
- Dutta, Satrajit and Rabindra Kanungo (1975), Affect and Memory, Oxford: Pergamon.

- Edell, Julie A. and Marian Chapman Burke (1987), "The Power of Feelings in Understanding Advertising Effects," Journal of Consumer Research, 14 (December), 421-433.
- Edell, Julie A. and Richard Staelin (1983), "The Information Processing of Pictures in Print Advertisements," Journal of Consumer Research, 10 (June), 45-61.
- Friestad, Marian and Esther Thorson (1986), "Emotion-Eliciting Advertising: Effects on Long Term Memory and Judgment," in Advances in Consumer Research, Vol. 13, Richard J. Lutz, ed., Provo, UT: Association for Consumer Research, 111-116.
- Goldberg, Marvin E. and Gerald J. Gorn (1987), "Happy and Sad TV Programs: How They Affect Reactions to Commercials," Journal of Consumer Research, 14 (December), 387-403.
- Golden, Linda L. and Keren A. Johnson (1983), "The Impact of Sensory Preference and Thinking Versus Feeling Appeals on Advertising Effectiveness," in Advances in Consumer Research, Vol. 10, Richard P. Bagozzi and Alice M. Tybout, eds., Ann Arbor, MI: Association for Consumer Research, 203-208.
- Hill, Ronald P. and Michael B. Mazis (1986), "Measuring Emotional Responses to Advertising," in Advances in Consumer Research, Vol. 13, Richard J. Lutz, ed., Provo, UT: Association for Consumer Research, 164-169.
- Holbrook, Morris B. (1978), "Beyond Attitude Structure: Toward the Informational Determinants of Attitude," Journal of Marketing Research, 15 (November), 545-556.

- Holbrook, Morris B. and Rajeev Batra (1987), "Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising," Journal of Consumer Research, 14 (December), 404-420.
- Holbrook, Morris B. and John O'Shaughnessy (1984), "The Role of Emotion in Advertising," Psychology & Marketing, 1 (Summer), 45-64.
- Keller, Kevin Lane (1987), "Memory Factors in Advertising: The Effect of Advertising Retrieval Cues on Brand Evaluations," Journal of Consumer Research, 14 (December), 316-333.
- Kisieliuss, Jolita and Brian Sternthal (1984), "Detecting and Explaining Vividness Effects in Attitudinal Judgments," Journal of Marketing Research, 21 (February), 54-64.
- Kotler, Philip (1983), Principles of Marketing, 2nd Ed., Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Kroeber-Riel, Werner (1979), "Activation Research: Psychobiological Approaches in Consumer Research," Journal of Consumer Research, 5 (March), 240-250.
- Lautman, Martin R. and Larry Percy (1984), "Cognitive and Affective Responses in Attribute-Based Versus End-Benefit Oriented Advertising," in Advances in Consumer Research, Vol. 11, Thomas C. Kinnear, ed., Provo, UT: Association for Consumer Research, 11-17.
- Liefeld, John P. (1985), "A Data Base for the Content Analysis of Canadian Print Advertising," Marketing, Proceedings of the Administrative Sciences Association of Canada, ed. Jean-Charles Chebat, Vol. 6 Part 3, 211-220.
- Lutz, Kathy A. and Richard J. Lutz (1977), "Effects of Interactive Imagery on Learning: Application to Advertising," Journal of Applied Psychology, 62 (August), 493-498.

- Mitchell, Andrew A. (1986), "Some Issues Surrounding Research on the Effects of 'Feeling Advertisements'," in Advances in Consumer Research, Vol. 13, Richard J. Lutz, ed., Provo, UT: Association for Consumer Research, 623-628.
- Ray, Michael L. and Rajeev Batra (1983), "Emotion and Persuasion in Advertising: What We Do and Don't Know About Affect," in Advances in Consumer Research, Vol. 10, Richard P. Bagozzi and Alice M. Tybout, eds., Ann Arbor, MI: Association for Consumer Research, 543-548.
- Srull, Thomas K. (1983), "Affect and Memory: The Impact of Affective Reactions in Advertising on the Representation of Product Information in Memory," in Advances in Consumer Research, Vol. 10, Richard P. Bagozzi and Alice M. Tybout, eds., Ann Arbor, MI: Association for Consumer Research, 520-525.
- Stout, Patricia A. and John D. Leckenby (1984), "The Rediscovery of Emotional Response in Copy Research," paper presented at the Annual Conference of the American Academy of Advertising, Denver, CO.
- Zielske, Hubert A. (1982), "Does Day-After Recall Penalize 'Feeling' Ads?" Journal of Advertising Research, 22 (February/March), 19-22.

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