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# The Effects of Sexual and Non-sexual Advertising Appeals and Information Level on Cognitive Processing and Communication Effectiveness

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*Previous research on the use of either implicit or explicit sexual imagery in advertising has focused mainly on factors such as the gender of the receiver, the product advertised (sexually or non-sexually related), and the type of stimulus presented (double entendre, decorative models, and nudity). Many of the relevant studies have focused on lower-order cognitive processes such as recall and/or recognition. Few, if any at all, examine the higher-order cognitive processes underlying reactions to sexually explicit material. The present study examines the role of visually explicit sexual stimuli in the processing of verbal information in a persuasive message, and the resulting effect on traditional outcome measures of recall, attitudes, and behavioral intentions, as well as higher-order cognitive response measures. In so doing, the study contributes to a greater understanding of sexual- and non-sexual appeals and how they are affected by information level.*

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As advertisers search for a way to break through clutter and draw attention to their messages, the use of sexually oriented appeals in advertising has been increasing and becoming more overt. In a content analysis of visual and verbal sexual portrayals in magazine advertisements, Soley and Kurzbard (1986) found that the use of visual sexual portrayals has increased, and that sexual appeals have become more explicit, using illustrations containing nudes and suggestions of intercourse more frequently. In addition, the amount of male/female contact depicted in advertisements tripled between 1964 and 1984. Advertisers' assumption that "sex sells" has also been noted in numerous articles both in the general and business media (Horowitz 1987; Sullivan 1988; Trachtenberg 1986).

While advertisers appear increasingly reliant upon the use of overt sexual appeals, past research casts some doubt on the efficacy of this form of advertising. Previous research has examined the effect of various factors such as gender of the receiver, nature of the product (sexually or non-sexually related) and type of stimulus (nudity, suggestiveness, decorative model, double entendre). Several of these studies have found that the use of overt sexual appeals is less effective than the use of non-sexual appeals with respect to recall, advertising and brand evaluation, and advertising perception. Much of this research has focused heavily on the effects of visual portrayals of sexual appeals. Less attention has been given to the interaction of visual sexual stimuli with verbal or copy content, despite the fact that studies on the effects of visual and verbal components of advertisements outside the sexual-appeals arena have shown that the way a message is presented, both pictorially and verbally, has a significant effect on the processing of the advertisement (Edell and Staelin 1986; Mitchell 1986).

The purpose of this study is to examine the communication effectiveness of visually explicit sexual stimuli, in general, and in conjunction with different levels of verbal information (copy). In addition to examining the impact of these factors on traditional effectiveness measures such as recall, brand attitudes, attitude toward the message, and purchase intention, this study also includes cognitive response

measures as a way of better understanding the processing of sexual and non-sexual advertising appeals.

## Review of the Literature

**Use of Sexual Appeals.** Sexual stimuli may be used as a motivating appeal in the graphic (visual) presentation of a commercial message, the copy (verbal) portions of that message, or a combination of both. While the percentage of messages employing sexual stimuli has not increased significantly over the past two decades, the manner of presentation has focused more on visual elements. Verbal references have actually decreased (Soley and Kurzbard 1986). As noted, presentations have become more explicit by focusing on nudity, male/female contact and suggestions of sexual intercourse.

The literature examining the use of sexual stimuli in commercial messages is rich and varied (Courtney and Whipple 1983). An extensive review of the advertising communication literature (Belch, Belch, and Villareal 1987) noted that the effectiveness of using sexual imagery in advertising seems to vary depending upon the dependent measures used, the product advertised, and the gender of the receiver. For example, research on the use of nudity as an advertising appeal indicates that although nudity may increase attention (Baker 1961), it is less effective than nonsexual illustrations in achieving brand recall (Steadman 1969). Steadman concluded that the attention paid to the sexual illustration detracted from attending to the brand name. In experimental treatments using demure, seductive, and nude models, Peterson and Kerin (1977) found that the treatment ad using the nude model was judged least appealing, the product lowest in quality, and the company least reputable. Similar results showing the negative effect of nudity on advertising effectiveness have been reported by Alexander and Judd (1978) and Sciglimpaglia, Belch, and Cain (1979).

Bello, Pitts, and Etzel (1983) demonstrated that the use of sexual imagery may operate in a fairly complex

manner. They conducted an experiment utilizing television commercials and programs that examined the effect of controversial sexual content on the communication effectiveness of advertising messages. Three measures of communication effectiveness were used: interest in the commercial, affect toward the product, and purchase intention. Results indicated that both males and females found a sexually controversial commercial more interesting than a non-controversial substitute; however, controversial content failed to improve the communication effectiveness of the advertising. The authors concluded that gender of the respondent, gender of the model, and level of controversy surrounding the message will all have an impact on the way information is processed by receivers.

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Another type of sexual appeal focuses primarily on the use of "decorative models." Decorative models are defined as nonfunctional models whose primary activity is to adorn the product as a sexual or attractive stimulus (Reid and Soley 1983). Smith and Engel (1968) found that the presence of a decorative female model influenced the emotional and objective evaluations of the product in a print automobile ad for both male and female subjects, while a study conducted by Chestnut, LaChance, and Lubitz (1977) showed that

the presence of decorative female models improved ad recognition but not brand recognition. Reid and Soley (1981) analyzed Starch scores of print ads and found that the use of an attractive or sexy female model enhanced recognition of print ads. Their results indicated that ads with decorative female models attracted more male reader attention than ads without models. However, the increased ad recognition was due to the visual rather than verbal components of the ads. Baker and Churchill (1977) manipulated the degree of model attractiveness (rather than presence or absence) and found that males and females rated the ads portraying a model of the opposite sex higher than those portraying a model of the same sex. They also found that attractive models produced higher behavioral intention ratings when the product was sexually relevant than when the product was sexually irrelevant.

Courtney and Whipple (1983) made an extensive review of studies examining the effectiveness of sexual appeals and concluded that: 1) attractive models lead to more attention, 2) the use of overt sexual stimuli leads to lower levels of recall and appeal evaluations as well as poorer product and manufacturer perceptions, and 3) unless the product is sexually related, the use of sexual appeals must be questioned. With regard to the latter point, a study by Richmond and Hartman (1982) found that sexual appeals in advertising can be categorized into several distinct types, and that audiences respond differently to various content dimensions of those appeals. They found that functional sexual appeals that were congruent with the nature and/or uses of the product generated the highest ad recall levels, while inappropriate sexual appeals (those incongruent with the product) resulted in the lowest recall. A partial replication and extension of this study by Tinkham and Reid (1988) was supportive of these findings and provided further evidence that advertising effectiveness is enhanced by a "natural" congruity between the product and sexual appeal.

**Processing of Visual and Verbal Stimuli.** Research on the information processing of visual and verbal components of advertisements has focused on the mediating role of attitude toward the advertisement on the communicative process. Mitchell and Olson (1981) have suggested that visual and emotional effects of advertising may be mediated by the consumer's evaluation of the advertisement, and that this attitude toward the ad may have an independent effect on brand attitudes. A follow-up study by Mitchell (1986) examined the effect of visual and verbal components of advertisements on brand attitudes and attitude toward the ad. The result of this study indicated that visual elements of advertisements affect brand attitudes in two ways. First, consumers may form inferences about the advertised brand based on the visual information presented. These inferences may, in turn, result in the formation of or change in beliefs about the advertised brand. Second, if the visual element is positively or negatively evaluated, it may have an effect on brand attitudes that operate through the attitude-toward-the-advertisement construct. The results also indicated that verbal information in advertisements may affect brand attitude in the same two ways.

It appears that the way in which a message is conveyed, both pictorially and verbally, has a significant effect on the processing of information in an advertisement, and that these differences in processing can affect consumer's attitudes toward the advertisement, the product, and their purchase intentions. Therefore, to effectively evaluate the impact of the use of sexual stimuli in advertising, attention will be given to the use of sexual and non-sexual appeals in conjunction with both high- and low-information levels. This research uses both visual and verbal components to examine the following hypotheses:

## Hypotheses

H<sub>1</sub>: Use of a sexually explicit visual appeal will result in lower brand

recall and lower copy point recall than will use of a non-sexual appeal. This effect will be moderated by the amount of information provided by the advertisement.

This prediction is based on past research suggesting that sexual illustrations detract from the receiver's ability to attend to information presented in a given advertisement (Baker 1961; Steadman 1969). The moderating effect of information level recognizes that brand and/or copy point recall should be higher when there is more information available to process.

H<sub>2</sub>: Use of a sexually explicit visual appeal will result in fewer evaluative thoughts regarding the product and/or message than will use of a non-sexual appeal. However, this effect will be moderated by information level, as high information advertisements make available more material for product message-related processing.

This prediction is based on the notion that sexual appeals should distract the recipient from processing the verbal content portions of a commercial message. Supporting research indicates that pictures unrelated to advertising content detract from receiver's ability to evaluate product messages (Edell and Staelin 1986).

H<sub>3</sub>: Use of a sexually explicit visual appeal will result in more advertising execution-related thoughts than will use of a non-sexual appeal.

Several studies have shown that cognitive processing often focuses more on advertising execution than on message content (Belch and Belch 1982). Given the nature of a very explicit sexual portrayal, it would seem that more attention would be given to the ad execution than to the message content.

H<sub>4</sub>: Use of a sexually explicit visual appeal will result in more favorable attitude toward the ad,

brand attitudes, and purchase intentions. In addition, brand attitudes and purchase intentions will vary as a function of attitude toward the advertisement.

Prior research has given very little attention to the effects of sexual and non-sexual appeals on attitude toward the ad. Bello et al. (1983) did find that commercials using controversial sexual content were perceived as more interesting. However, studies by Mitchell and Olson (1981) and Mitchell (1986) found that affect-laden photographs had an effect on attitude toward the ad and brand attitudes. Photographs that were positively evaluated created more favorable attitudes toward the ad and brand attitudes, whereas the reverse was true for negatively evaluated photographs. It is expected that the sexually explicit visual appeal used in this study will be evaluated favorably, and thus will result in more favorable ad and brand attitudes.

Findings concerning the effects of sexual and non-sexual appeals on brand attitudes and intentions are generally mixed. However, as discussed earlier, several studies have shown that sexual appeals may have a positive effect on these measures when the product is perceived as sexually relevant. The predictions that the sexual appeal will have a more favorable impact is based in part on the positioning of the leisure/athletic shoe used in this study as a sexually appealing fashion accessory. Other manufacturers of leisure/athletic shoes have positioned their brands as fashion-oriented, image-enhancing products. Thus, the use of a sexual appeal would be considered relevant.

## Method

**Stimuli.** An advertisement for Travel Fox sports shoes, a product targeted to males and females approximately 18 to 34 years of age, was selected for use in this study. The original double-spread, four-color advertisement showed a side profile of two adults from the chest down—one male and one female—

completely nude except for the advertised sports shoes and matching socks. The models were shown in a position clearly suggesting sexual intercourse, with one line of copy appearing below the illustration. The copy emphasized the soft leather construction of the shoe and the variety of colors available. This particular advertisement was chosen because it used a visually explicit sexual appeal, and because the target market for the product matched the college-aged subjects participating in the study. Also, as a result of its format, the advertisement was easily adaptable to changing both the visual and copy contents.

To develop the experimental treatments, the advertisement was presented in its original form (high sex, low information) and in three altered forms: high sex, high information; no sex, high information; and no sex, low information). The general format of the original ad was retained across all four treatments. In the no-sex conditions the visual portion of the ad showed only a picture of the shoes with ad copy appearing below the illustration. The two low-information conditions contained three general copy points, presented in fourteen words. The high-information condition was operationalized using 60 words of copy and seven copy points dealing specifically with product attributes, features, and benefits of the brand. This copy was adapted from advertisements for competitive brands. The brand name was prominently displayed in all four conditions in bold letters in the upper left hand corner in a headline reading *Fox Appeal by Travel Fox*. (The copy for the high- and low-information ads appears in the Appendix.)

**Subjects and Procedures.** One hundred eighty students between the ages of 18 and 26 enrolled in introductory marketing classes at a major urban university participated in the experiment. Forty-five subjects were randomly assigned to each of the four treatment groups. The experiment was conducted during eight sessions with between 20 and 25 subjects in each.

Subjects were informed that they would be asked to view and evaluate a series of advertisements that might be used in introducing new products to the market. Caution was taken that each group was provided with the same set of instructions. The advertisements were projected on a large screen in the front of the room and respondents were asked to examine each ad as though they had come across it in a magazine. Efforts were taken to ensure that the screen was clearly visible to all participants.

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Five print advertisements (one treatment and four control ads), were shown for 40 seconds each. (Pretesting indicated that 40 seconds provided adequate time for viewing and processing the information contained in all the advertisements.) Advertisements for a variety of consumer products recently introduced to the market served as control ads. Each group viewed the same four control advertisements and one treatment ad, with the latter always occupying the middle position. Upon viewing all of the advertisements subjects were asked to complete the questionnaire containing the various dependent measures.

**Dependent Measures.** Immediately after viewing the last ad, subjects were asked to list all product categories for which they had just seen an ad as well as the brand name for each product. After completing the brand name recall measures, cognitive responses to

the stimulus ads were elicited. Subjects were given two minutes to write down the thoughts that went through their minds while viewing the shoe advertisement. Again, pretesting indicated that a two-minute time limit afforded subjects ample opportunity to record their thoughts.

Cognitive responses were coded using eighteen different categorizations, with the classification scheme including four broad categories: product/message evaluations, advertising execution evaluations, sexually related advertising execution evaluations and unrelated or irrelevant thoughts. These categories were further classified into four sub-categories: positive, negative, neutral- and curiosity-type thoughts. Product message thoughts included cognitions concerning either the product or the claim made in the message. Ad execution cognitions were those generated in response to the way the advertisement was done in terms of ad quality, creative style, colors etc. Sexually related ad execution cognitions included thoughts that met the criteria of the ad execution category and contained a specific sexual reference. Non-sexually related execution thoughts made no reference to the sexual nature of the ad. Unrelated irrelevant thoughts included statements that did not reflect evaluation of the product, message, or ad itself. Those included thoughts about one's feelings or state of mind during the experiment and statements about the task or general situation.

The cognitive response protocols were coded by three judges. Unanimous agreement in the coding was achieved for 63 percent of the cognitions. Two of the three judges agreed on an additional 31 percent. The modal scoring convention resulted in a classification of 94 percent of the thoughts. The remaining 6 percent of the cognitions were categorized after discussion among the judges. The classification and coding procedure used was consistent with previous cognitive response studies (Wright 1980). The remaining dependent measures were taken after the subjects completed the cognitive response task.

Copy-point recall was measured by having subjects list as many claims or points of information for the treatment advertisement as they could recall. Attitude toward the ad was measured by having the subjects respond to five 7-point scales assessing their overall reaction to the advertisement. These items included Entertaining/Not entertaining, Favorable/Unfavorable, Interesting/Boring, Original/Unoriginal, and Offensive/Not offensive. Brand attitudes were assessed by having the subjects indicate their feelings about the shoes on two 7-point scales anchored by Very Favorable/Very Unfavorable and Very Good/Very Bad. Purchase intentions were measured by asking respondents to indicate the likelihood that they would consider purchasing the brand if they were in the market for a pair of casual sports shoes. These were anchored on two 7-point scales by Very Likely/Very Unlikely and Very Probable/Very Improbable. The procedure was completed following the collection of demographic data and questions concerning familiarity with the brand and awareness of Travel Fox advertising.

Subjects were quiet throughout the procedure and no interaction occurred among participants during the experiment. All subjects were debriefed upon completion of the experiment. The debriefing process and analysis of the familiarity measures revealed that only three subjects were aware of the ad or familiar with the Travel Fox brand prior to the experiment. The responses of these three subjects were eliminated from analysis. Subjects expressed a variety of opinions regarding the purpose of the study however, there was no evidence that subjects in the high-sex conditions had determined that the purpose of the study was to examine reactions to the treatment ad.

## Results

**Manipulation checks.** Measures were taken to ensure that the manipulations of information level and sex were successful. The perceived information levels were examined by having subjects

respond to a 5-point scale indicating how much information the Travel Fox ad contained compared to other ads for sports shoes. This scale was anchored by 1 = Very little and 5 = A great deal. The mean score across the high-information conditions was 2.65 versus 1.91 across the low-information conditions. An ANOVA indicated these differences were significant ( $F [1,176] = 26.26, p < .001$ ). The perceived sexiness of the ad was measured on a 7-point scale anchored by 1 = Not at all sexy and 7 = Very sexy. The mean score for this measure on the high-sex conditions was 6.07 versus 2.83 for the no-sex conditions. Again, an ANOVA indicated these differences to be significant ( $F [1,176] = 187.96, p < .001$ ). These results indicate that the manipulation of sex and information levels were successful.

*Hypothesis One* predicted that the use of a sexually explicit appeal would result in lower brand recall and lower copy-point recall. It was expected, however, that the information level of the advertisements would moderate this effect. To test this prediction, the results for brand name recall and copy point recall across the four treatment groups were examined.

**Brand Name Recall.** The results for brand name recall, which represents the percentage of subjects in each treatment group who correctly listed the brand of shoes as one of the products for which they saw an ad, are shown in Table 1. As can be seen in the table, brand name recall across the high-sex conditions was not significantly different than in the no-sex conditions (mean = 73 v. 71 percent). Brand name recall was the highest in the high-sex, high-information condition (82 percent) and lowest in the high-sex, low-information condition (64 percent). In the non-sexual conditions, brand name recall was slightly higher for the high-information condition (73 percent) versus low-information condition (69 percent). Overall, the ability to recall a brand name appears to be more a function of the information level of the ad than of its sexual explicitness. While brand

name recall did not differ significantly as a function of the presence or absence of a sexual appeal, high-information ads resulted in greater brand name recall than low-information ads (77 v. 66 percent). However, this difference was only marginally significant (chi square = 2.77,  $p < .10$ ). Thus, Hypothesis 1 was not supported for the brand recall measure.

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**Copy Point Recall.** Table 1 also shows the scores on the copy-point recall measures across the four treatment groups. The results of an analysis of variance performed on this measure revealed that there were significant main effects for both sex and information level ( $F [1,176] = 11.93, 8.41$  respectively,  $p < .01$ ), as well as a significant two-way interaction involving the two factors ( $F = 4.29, p < .05$ ). As can be seen in Table 1, the main effect for sex was a result of copy-point recall being greater in the no-sex versus explicit-sex conditions, while the information level main effect resulted from copy-point recall being much greater in the high-information conditions. However, these results are primarily a function of the fact that copy-point recall is much greater in the no-sex/high-information condition than in the other three treatment groups. These findings for copy-point recall support the first hypothesis: message comprehension was lower for the sexually explicit appeal than for the non-sexual appeal. While high-information level resulted in greater recall than low information, the use of a sexual appeal resulted in a significant reduction in

copy-point recall for the high-information-level message.

*Hypothesis Two* predicted that the use of a sexually explicit visual appeal would result in fewer evaluative thoughts about the product and/or message than would the use of a non-sexual appeal. However, again, this effect was expected to be moderated by information level. The cell means for product/message-related thoughts are presented in Table 2. An analysis of variance performed on the total number of product/message-related cognitive thought measures revealed significant main effects for both sex and information level ( $F [1,176] = 31.55, 12.14$  respectively,  $p < .001$ ). As Table 2 shows, the significant main effect for sex was a function of more product-related thoughts of all types (positive, negative, neutral, and curious) being generated in the no-sex versus sexually explicit conditions. The differences were significant for all cognitive-response categories except curiosity thoughts. The main effect for information level was due primarily to more negative product/message thoughts being elicited by the low-information advertisement than by the high-information advertisement.

These results are partially supportive of the second hypothesis, as the use of sexually explicit appeals appears to reduce the amount of product-message-related thinking engaged in by message recipients. However, it was expected that the effect would be moderated by information level, with a high-information level advertisement making available more material for product/message-related processing. This was not the case. The number of product-message thoughts was actually higher in the low- versus high-information conditions.

Product message-related thinking was particularly low for high-information ads when a sexual appeal was used. While this finding is consistent with the prediction that the use of a sexual appeal will reduce the number of product/message-related thoughts, the reduction was expected to be greater in the low- rather than the high-information condition.

TABLE 1  
Brand and Copy Point Recall Scores by Treatment Groups

	Sexual Appeal		Non-Sexual Appeal	
	High Info.	Low Info.	High Info.	Low Info.
Brand-Name Recall <sup>a</sup>	82%	64%	73%	69%
Copy-Point Recall <sup>b</sup>	.97	.84	1.86	1.06

<sup>a</sup> Percentage of subjects listing correct brand name of the product.

<sup>b</sup> Figures represent mean number of copy points recalled.

TABLE 2  
Mean Number of Product/Message (P/M)-Related Thoughts by Treatment Groups

Type of P/M Thought	Sexual Appeal		Non-Sexual Appeal	
	High Info.	Low Info.	High Info.	Low Info.
Positive	.156	.178	.489	.667
Negative	.200	.356	.333	.689
Neutral	.089	.222	.356	.311
Curiosity	.156	.311	.222	.356
Total P/M	.644	1.18	1.40	2.04

TABLE 3  
Mean Number of Ad Execution (AE) Related Thoughts by Treatment Groups

Type of AE Thoughts	Sexual Appeal		Non-Sexual Appeal	
	High Info.	Low Info.	High Info.	Low Info.
Total	2.64	2.33	1.75	1.08
Sexually Related	1.62	1.69	0.00	0.02
Non-Sexually Related	1.02	0.64	1.75	1.06

*Hypothesis Three* predicted that the use of a sexually explicit visual appeal would result in more advertising execution-related thoughts than would the use of a nonsexual appeal. The mean number of ad execution-related thoughts for the four treatment groups is presented in Table 3. The results of the analysis of variance for the total number of ad execution related-thoughts measure revealed significant main effects for both sex and information level ( $F [1,176] = 42.45, 8.92$ , respectively,  $p < .001$ ). As can be seen in Table 3, the total number of ad execution-related thoughts was significantly higher in the sexual appeal versus non-sex conditions and in the high- versus low-information

conditions. However, it can also be seen in Table 3 that the total number of ad execution-related thoughts in the sexual message conditions was due primarily to the generation of sexually related ad execution thoughts.

If the sexually related thoughts are removed from the total number of ad execution cognitions, the remaining non-sexually related ad execution thoughts measure is higher for those respondents viewing the non-sexual message than those viewing the sexual appeal. Thus, the greater number of ad execution thoughts generated in the high-sex condition results primarily from evaluations of ad executions that were related to use of a sexual appeal.

Differences in non-sexually related execution thoughts between the high-versus low-information conditions are similar to those for the total execution thoughts measured, as more responses were generated by respondents seeing the high-information ads than those viewing the low-information message. Overall these findings are supportive of Hypothesis 3.

Hypothesis Four predicted that the use of a sexually explicit visual appeal would result in more favorable attitude toward the ad, brand attitude, and purchase intention, and that brand attitude and purchase intention would show the same pattern of results as that found in the attitude-toward-the-ad measure. Results on the attitude-toward-the-ad measures, as well as brand attitude and purchase intention across the four treatment groups, are shown in Table 4. As can be seen in this table, respondents viewing sexually explicit ads evaluated them as more entertaining, favorable, interesting, and original than the non-sexual ads. However, the sexual appeals were also rated as more offensive. ANOVAs performed on these measures revealed a significant main effect for sex on all five attitude-toward-the-ad measures. A summary score for attitude toward the ad, developed by averaging across these five measures, also revealed a significant main effect for sex.

While brand attitude measures do follow this pattern, no significant differences were found for either of the experimental factors. However, the results of the ANOVA for the purchase intention measure were in line with the attitude-toward-the-ad results, as there was a significant main effect for sex ( $F[1,176] = 6.41, p < .01$ ). This effect was the result of purchase intentions being higher for those subjects who viewed the sexual versus the non-sexual ad. Information level had no significant effect on purchase intention.

To gain further insight into the relationship between attitude toward the ad and brand attitudes and purchase intentions, correlational analyses were conducted among these measures for

TABLE 4  
Mean Scores of Attitude Toward the Ad,  
Brand Attitude and Purchase Intentions By Treatment Groups

Attitude Toward Ad <sup>a</sup>	Sexual Appeal		Non-Sexual Appeal	
	High Info.	Low Info.	High Info.	Low Info.
Favorable	3.91	3.98	3.38	3.51
Interesting	5.56	5.44	3.36	3.64
Original	5.29	5.42	4.09	4.02
Offensive	3.66	3.13	2.40	3.27
Brand Attitude <sup>b</sup>	3.24	3.54	3.16	3.25
Purchase Intention <sup>c</sup>	2.86	3.18	2.29	2.54

<sup>a</sup> Numbers represent mean score on seven-point scale where 7 = very and 1 = not at all (measure)  
<sup>b</sup> Brand attitude score represents average of two seven-point scales where 7 = very (favorable, good) and 1 = very (unfavorable, bad)  
<sup>c</sup> Purchase intention scores represent average of two 7-point scales where 7 = very (likely, probable) and 1 = very (unlikely, improbable)

TABLE 5  
Correlations of Attitude Toward the Ad Measures  
with Brand Attitudes and Purchase Intentions

Attitude Toward the Ad Measure	Total Sample		Non-Sexual Appeal Conditions		Sexual Appeal Conditions	
	Brand Attitudes	Purchase Intentions	Brand Attitudes	Purchase Intentions	Brand Attitudes	Purchase Intentions
Entertaining						
Favorable	.43	.42	.52	.43	.39	.35
Interesting	.66	.65	.68	.62	.66	.65
Original	.37	.41	.51	.45	.29	.31
Offensive	.30	.29	.32	.30	.29	.18
Summary <sup>a</sup> Measure	-.18	-.09 <sup>c</sup>	-.13 <sup>c</sup>	-.12 <sup>c</sup>	-.26	-.18 <sup>b</sup>
	.46	.49	.55	.49	.48	.46

<sup>a</sup>Summary Attitude toward the Ad represents average of five measures  
<sup>b</sup>Significant  $p < .05$ , all other correlations significant  $p .01$  except c  
<sup>c</sup>Nonsignificant correlations

the total sample and for the high-sex and no-sexual appeal treatments. As can be seen in Table 5, the correlation of the summary ad measure with both brand attitude and purchase intention is reasonably high. Examination of the correlations between the individual attitude-toward-the-ad measure with attitudes and purchase intentions shows that the favorable/unfavorable measure correlates the highest, while the offensiveness measure has the weakest

relationship. A comparison of the sexual- and non-sexual-appeal conditions reveals some slight differences in the magnitude of the correlations for some of the individual attitude-toward-the-ad measures with attitude and purchase intentions.

Overall, these findings are generally supportive of Hypothesis 4. The use of a visual sexual appeal results in more favorable attitudes toward the ad and greater purchase intentions, but not



more favorable brand attitudes. The correlational analysis reveals that brand attitude and purchase intention are significantly related to attitude toward the ad.

## Discussion

The results of this study are interesting in several respects. First, while the use of an explicit sexual advertising appeal did not interfere with message recipients' ability to recall brand name, it did have a negative effect on copy-point recall. The use of a high-information level advertisement was able to increase copy-point recall when a non-sexual appeal was used; however, this was not the case for subjects viewing an advertisement using an explicit sexual appeal. The lack of significant differences in brand name recall is not surprising considering that the identification of the brand and manufacturer were prominently shown in each message. However, the findings do indicate that the use of a sexual appeal does interfere with message comprehension, particularly when there is substantial information available for processing.

The results of the cognitive response analyses are particularly interesting and provide insight into differences in processing sexual and non-sexual appeals. More product message-related thinking occurred in response to the non-sexual versus the explicit sexual appeal. The low number of product message-related thoughts generated in response to the high-information/high-sex appeal again suggests that the use of a sexual illustration will interfere with product message-related processing. Further insight into sexual appeals is shown by the differences in ad execution-related thoughts. Subjects viewing the explicit sexual appeal generated more thoughts about the way the message was executed than did those viewing the non-sexual message. This difference was a function of the thoughts generated concerning the use of visual sexual elements of the ad.

Overall, the findings regarding copy-point recall and the cognitive response measures suggest that when the visual

portion of the message is highly sexual in nature, processing tends to focus more on the execution of the message in terms of its sexual elements, thus drawing cognitive processing away from evaluation of the product and/or the message.

The use of a sexually explicit visual appeal reduced message recipients' product-related thinking and message comprehension, and increased ad execution-related thoughts. Subjects reacted more favorably to the sexually-oriented ads, rating them as more entertaining, favorable, interesting, and original than the non-sexual ads, though also rating them as more offensive. While brand attitudes were not significantly different between the sexual and non-sexual material, those subjects viewing sexual appeals did show stronger purchase intentions, suggesting that the use of an explicit sexual appeal can result in more favorable predispositions toward the ad which in turn may lead to greater purchase intention.

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**. . . when the visual portion of the message is highly sexual in nature, processing tends to focus more on the execution of the message . . . thus drawing cognitive processing away from evaluation of the product and/or the message.**

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The favorable impact of the sexually explicit visual appeal may stem from the fact that these ads tended to position the Travel Fox brand as a fash-

ion-type product, where the use of a sexual appeal might have been perceived as being appropriate. As noted earlier, past research has shown that sexual appeals are more effective when the product is considered sexually relevant. These findings may also, of course, be a function of the subjects used in the study. They were college-age and may have found the use of an explicit sexual appeal to be more acceptable than would an older, more sexually conservative audience. It should be noted, however, that the subjects in this study closely matched the target audience for the product as identified by the manufacturer (Schapiro 1989).

## Summary and Limitations

There are several limitations to this study. First, the experimental procedure had subjects view slides in a group-exposure setting rather than looking at ads in an actual magazine. Thus, there was a certain degree of "forced exposure" to the ads. A more desirable procedure would be to expose the ads to subjects in a more natural magazine format.

Another limitation of this study was the sample. This is important because, as noted above, a younger student population of an urban university may be more tolerant of sexually explicit advertising, and thus, be more likely to have favorable reactions toward the ad as well as the product. Different results might be found for other demographic groups such as older consumers or for those with more conservative sexual attitudes.

Finally, as is the case with most communications studies, these findings represent reactions to a specific execution for one particular brand/product. Thus, caution must be taken attempting to generalize these findings.

These limitations notwithstanding, this study contributes to our understanding of the effectiveness of sexually explicit advertising appeals. The results tend to support conventional wisdom which suggests that the use of sexual advertising appeals detracts from receivers'

processing of message content. The use of sexual appeals in this study seemed to detract from the processing and retention of message arguments. It did appear, however, that recipients will focus their attention more on the executional elements of ads using this type of appeal. This may result in favorable attitudes toward the ad itself and may in turn lead to greater purchase intention. It is important that researchers investigating the communication effects of sexual versus non-sexual appeals go beyond lower-level measures such as awareness, brand recall, and ad recall. Consideration should be given to how sexual versus non-sexual appeals affect cognitive processing, which may in turn mediate affective reactions and purchase intention. In addition, future studies should examine how the cognitive processing of sexual appeals varies among different audiences.

## References

- Alexander, W.M. and B. Judd, Jr. (1978), "Do Nudes in Ads Enhance Brand Recall?" *Journal of Advertising Research*, 18 (February), 47-51.
- Baker, S. (1961), *Visual Persuasions*, New York: McGraw-Hill, Inc.
- Baker, M.J. and G.A. Churchill, Jr. (1977), "The Impact of Physically Attractive Models on Advertising Evaluations," *Journal of Marketing Research*, 14 (November), 538-555.
- Belch, George E. and Michael A. Belch (1982), "An Examination of Advertising Execution Related Cognitions as Mediators of Commercial Message Acceptance," in *Developments in Marketing Science: Proceedings of the Sixth Annual Conference of the Academy of Marketing Science*, Vinay Kothari, ed., Las Vegas, NV: Academy of Marketing Science, 62-65.
- Belch, Michael A., George E. Belch and B.E. Holgerson (1982), "Psychophysiological and Cognitive Responses to Sex in Advertising," in *Advances in Consumer Research*, IX, A. Mitchell, ed., Ann Arbor, MI: Association for Consumer Research, 424-427.
- Belch, George E., Michael A. Belch, and Anjelina Villareal (1987), "Effects of Advertising Communications: Review of Research," in *Research in Marketing*, IX, J. Sheth, ed., New York: JAI Press, 59-117.
- Bello, D.C., R.E. Pitts, and M.J. Etzel (1983), "The Communication Effects of Controversial Sexual Content in Television Programs and Commercials," *Journal of Advertising*, 3 (12), 32-42.
- Chestnut, R., C. LaChance, and A. Lubitz (1977), "The 'Decorative' Female Model: Sexual Stimuli and the Recognition of Advertisements," *Journal of Advertising*, 6 (Fall), 11-14.
- Courtney, A.E. and T.W. Whipple (1983), *Sex Stereotyping in Advertising*, Lexington, MA: D.C. Heath and Company.
- Edell, Julie A. and Richard Staelin (1986), "The Information Processing of Pictures in Print Advertisements," *Journal of Consumer Research*, 10 (June), 45-61.
- Horowitz, Bruce (1987), "Sex in Ads: It Even Sells Detergent," *Los Angeles Times*, Wednesday, July 8, C1-C3.
- Mitchell, Andrew A. (1986), "The Effect of Verbal and Visual Components of Advertisements on Brand Attitude and Attitude Toward the Advertisement," *Journal of Consumer Research*, 13 (June), 12-24.
- Mitchell, Andrew A. and Jerry C. Olson (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?" *Journal of Marketing Research*, 18 (August), 318-332.
- Peterson, Robert A. and R.A. Kerin (1977), "The Female Role in Advertisements: Some Experimental Evidence," *Journal of Marketing*, 41 (October), 51-63.
- Reid, Leonard N. and Lawrence C. Soley (1981), "Another Look at the 'Decorative' Female Model: The Recognition of Visual and Verbal Ad Components," *Current Issues and Research in Advertising*, 122-133.
- Reid, Leonard N. and Lawrence C. Soley (1983), "Decorative Models and the Readership of Magazine Ads," *Journal of Advertising Research*, 23 (April-May), 27-32.
- Richmond, D. and T.P. Hartman (1982), "Sex Appeal in Advertising," *Journal of Advertising Research*, 22 (5), 53-61.
- Schapiro, Ashley (1989), Personal communication with Ashley Schapiro, President of Travel Fox Inc.
- Sciglimpaglia, D., Michael A. Belch, and R.F. Cain (1979), "Demographic and Cognitive Facts Influencing Viewers' Evaluation of 'Sexy' Advertisements," in *Advances in Consumer Research*, W.L. Wilkie, ed., Ann Arbor, MI: Association for Consumer Research, 6, 62-65.
- Soley, L.C. and G. Kurzbard (1986), "Sex in Advertising: A Comparison of 1964 and 1984 Magazine Advertisements," *Journal of Advertising*, 15 (3), 46-54.
- Smith, G. and R. Engel (1968), "Influence of a Female Model on Perceived Characteristics of an Automobile," *Proceedings of the 76th Annual Convention of the American Psychological Association*, 3, 681-682.
- Steadman, M. (1969), "How Sexy Illustrations Affect Brand Recall," *Journal of Advertising Research*, 9 (March), 15-18.
- Sullivan, Andrew (1988), "Flogging Underwear: The New Raunchiness of American Advertising," *The New Republic*, (January), 20-24.
- Tinkham, Spencer F. and Leonard N. Reid (1988), "Sex Appeal in Advertising Revisited: Validation of a Typology," in *Proceedings of the 1988 Conference of American Academy of Advertising*, John D. Leckenby, ed., Austin, TX.
- Trachtenberg, Jeffrey A. (1986), "It's Become Part of Our Culture," *Forbes*, (May), 134-135.
- Wright, Peter (1980), "Message-Evoked Thoughts: Persuasion Research Using Thought Verbalizations," *Journal of Consumer Research*, 7 (September), 151-175.

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## APPENDIX

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### Copy for High-Information Conditions

Travel Fox cushioning is a patented system called Air-Spring. After each step or jump the cushioning system springs back to its original shape reducing the chance of shock-related injury to the foot and lower leg. And there's three times more air in the system than in any other casual sports shoe. Travel Fox—more than just good looks.

### Copy for Low-Information Conditions

Show your true colors. Footwear in the softest nappa leather. For men and women.