An Investigation of the Effects of Male Nudity in Advertising on Product Brand Recall

Spring 1981

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AN INVESTIGATION OF THE EFFECTS OF
MALE NUDITY IN ADVERTISING ON PRODUCT BRAND RECALL

BY

JOHN ALBERT WELSCH
B. A., University of New Orleans, 1976

THESIS

Submitted in partial fulfillment of the requirements for
the degree of Master of Arts: Communication in the
Graduate Studies Program of the College of Arts and Sciences
at the University of Central Florida; Orlando, Florida

Spring Quarter
1981
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INTRODUCTION

The use of nudity in advertising to attract attention to a product is not a technique that is new or original. A cursory examination of advertising materials of the last several decades will readily reveal examples of females displaying varying amounts of their form as well as the product. The reasons for using sexually oriented themes is to achieve product and brand attention, recognition, recall, and naturally, sales. Research in the use of female nudity has indicated that this technique is not the most effective method of achieving those chosen goals (Alexander & Judd, 1978).

Even though Alexander and Judd's research indicates that the use of non-sexual themes is more effective than any level of sexually explicit advertising, the advertising industry continues to employ it widely, perhaps more now than in the past.

The aim, of course, is to jolt benumbed viewers out of their Barcaloungers. "People are looking for a new stimulant on the subconscious level, and sex is the last taboo," says Arthur Ross, creative director of the advertising agency, Weiss and Geller, Inc. He and other marketers say that the newly explicit ads are targeted to reach what they perceive as a jaded, turned-off populace. ("King Leer", 1980, p. 1)

Advertising has always segmented its markets. Beer ads are shown during sporting events because there is a higher percentage of men watching those programs and men are much more likely to
drink beer than women. Conversely, during soap operas, where the audience is largely female and at home, the advertising is strongly slanted to feminine products and home maintenance.

Differences in persuading correlated with the sex of an individual result from the roles, needs and wants that members of each sex have learned from their culture; and these differences must be taken into account in designing messages primarily for one sex. (Britt, 1978, p. 298)

Although advertisers have for many years focused on the female market, and have even used female nudes in that advertising, the use of scantily clad males in obviously intimate situations is a relatively new phenomenon. The appeal is both erotic and romantic, a non-rational approach in attempting to persuade the selected audience. The use of non-rational or emotional messages are most effective when used in decisions where there is little difference in alternatives (Beckman, 1962). Advertisers, undoubtedly aware of this tendency, have made use of male nudity in products where the difference between products is not great. A review of print advertising will demonstrate that this type of message is most often found in cosmetics and clothing; more specifically colognes, jeans and underwear.

Effective communication must satisfy a need. Advertising seeks to communicate to its audience the ability of a product or service to satisfy a need. The use of sexually topical illustrations in advertising would appear to be trying to satisfy the need for physically and emotionally satisfying relationships that all people have. The evolving mores of our society are having an
impact on this method of communicating.

The gains women have made in the workplace have actually made them more receptive to overtly suggestive advertising, marketers say. Brenda Harburger, vice president of Charles of the Ritz Group Ltd.'s fragrance division, says the company's Enjoli ad would have been rejected by women 10 years ago, "because they were still battling to feel equal to men at work." With one out of two women now working, "people are comfortably recognizing that sex exists, and that it's healthy to desire it," says Sanford D. Buchsbaum, executive vice president for Revlon Inc.'s U.S. cosmetics. ("King Lear", 1980, p. 24)

This evolution of sexual attitude is at the crux of this study. It has been the accepted theory that women did not respond to the use of opposite sex nudity in the same manner as men. This belief has been based largely upon research done upon pornographic materials. These studies have demonstrated what could be described as an ambivalent attitude towards male nudity by females (Stauffer & Frost, 1976). Combining this research with that of Alexander and Judd, it would appear that advertisers are not using the most effective method to sell their products. Yet they continue to use sexually explicit advertising in ever more erotic scenes.

Alexander and Judd sought to determine the effect that female nudity had on brand recall for males. It is the purpose of this study to determine the effect male nudity has on females and males as it relates to brand recall in advertising. This research may help explain the apparent dichotomy between scholarly research, that demonstrates that nudity is not an effective method to achieve brand recall and advertising practitioners who use sexually explicit advertisements.
The context of the use of nudity in advertising also bears examination. The use of sensual and romantic ads in the cosmetic industry is not recent; the level of explicitness is. Nude models in other, less stimulating, product categories seem to indicate that the notion of sexuality and nudity as an effective method of advertising is gaining, not losing credence.

The California Avocado Commission Supplements its "Love Food From California" recipe ads with a new campaign featuring Angie Dickinson. The leggy actress will sprawl across two pages of some 18 national magazines next month to promote the avocado's nutritional value. The copy line reads: "Would this body lie to you?"

Dannon Yogurt, in an ad featuring a bikini-clad lovely, touts a new yogurt diet under this headline: "More nonsense is written on dieting than on any other subject -- except possibly sex." And in Lipton tea commercials, alluring women urge viewers to spice up their lives with the company's line of flavored brews.

Though Dannon Co. and Thomas J. Lipton Inc. stoutly deny any attempt to titillate, Jacob Jacoby, a Purdue University psychologist and marketing consultant, believes otherwise. "Tea is boring as hell," he says, "and the yogurt maker merely chose a provocative value to grab attention." ("King Leer", 1980, p. 1)

Note that the aforementioned products are using female models in their ads. The supposition is, judging from advertisers in the past, that these and other advertisers, seeking ever more provocative ads will eventually use males in their sexual topic advertising.

The use of ever more suggestive advertising appears to be a trend that shows few signs of abatement, indeed it seems to be gathering momentum. Moral considerations aside, it would be important to discover whether or not these techniques are effective. This study investigates crucial aspects of the effectiveness of
male nudity in advertising.

The ultimate goal of advertising is to persuade the consumer to purchase a product or service. To achieve its goal, an advertisement must successfully perform several functions. Attention, interest, positive brand image and recall enhancement are the primary functions of the ad. The following list defines these functions in the context of the advertisement and consumer relationship.

1. Attention - The ability of the ad to separate itself from the environment and attract the consumer's eye. The strength of this ability will determine the initial level of involvement with the ad and its product by the consumer.

2. Interest - The level of perceived need by the consumer for the advertised product. Needs can be either physical or psychological.

3. Brand Image - The consumer's concept of the brand. This concept consists of the ideas that the consumer collects from all sources pertaining to the brand and product. Advertising seeks to create a positive image.

4. Recall - The ability of the consumer to remember the brand name and product line associated with the brand name when an appropriate stimulus is provided. For an advertisement to reach its goal of persuading the consumer, it must effectively perform the listed functions. There are many different methods of executing these functions; a common practice
is to use sexually explicit artwork and copy as a basis for the advertisement.

The initial function of an ad is to successfully compete against countless other ads for the consumers attention. Sexually oriented advertising is utilized for its ability to provoke reactions. Explicit artwork and copy will attract the attention of the consumer. The use of explicit materials as an attention-getter is limited. The implication of sex as a benefit is sensible for personal products but the use of explicit advertising would tend not to enhance those products whose benefits are more functional; for example industrial equipment.

Too often advertisers have attempted to introduce the sex appeal into the advertising of products that would not logically lend themselves to this appeal. The result has been the use of copy and illustrations highly irrelevant to the real usefulness of the product. (Sandage & Fryburger, 1963, p. 270)

Sex is a reliable method of gaining the attention of the consumer but it must be pertinent to the product or service to achieve the next function of advertising; arousing the interest of the consumer.

The consumer must have an interest in the product or service to be persuaded to purchase it. Products that are able to imply sex as a benefit can exploit a basic human need and motivation; sexual desire. It has been suggested by Freudian psychologists that the sex drive is the prime human motivation. The desire for a satisfactory sex life is undoubtedly strong and interest in its enhancement is universal. It is therefore apparent that if a product can identify sexuality as a benefit, it will be
able to exploit a basic and powerful human need. The effective exploitation of sex will undoubtedly focus the interest of the consumer.

Brand image is a matter of perception. It is created by a variety of information sources impacting on the consumer. The advertiser seeks to create a positive image for a brand by influencing the stimuli that is received by the buyer. The concept of brand image is important in creating a difference between products that are technically the same. According to economist, John K. Galbraith, there is no such thing as an "undifferentiated product":

If the number of sellers is small, they will always be identified as distinct personalities to the buyer. And although their products may be identical, their personalities will not and cannot be. There is always, accordingly, a degree of product differentiation. (Galbraith, 1956, p. 43)

Sex can be an important aspect of brand and product image. The inclusion of sex appeal in the image can be a powerful psychological tool. If consumers perceive the brand and product as a means of increasing sexual attractiveness, they are likely to purchase it. The image of the product will be attached to a strong human need, increasing its psychological potency.

Recall of the brand or product is influenced by the effective combination of all message factors. If the advertisements used perform as desired, the consumer will respond at the point of purchase. The buyer will be able to remember the brand name and product and the reasons that it should be purchased. The consumer will have been convinced that the product will satisfy their
perceived needs. The more powerful the need that is satisfied, the more effective the message strategy will be.

The stated goal of advertising is to persuade the consumer to purchase a product or service. According to Rokeach, advertisers are altering what he terms inconsequential beliefs.

Our findings suggest that inconsequential beliefs are generally easier to change than other kinds of beliefs. This does not mean, however, that the consumer will passively yield to others' efforts to change such beliefs. We generally resist changing all our beliefs because we gain comfort in clinging to the familiar and because all our beliefs seem to serve highly important functions for us. So the advertising man, while he has a psychological advantage over other persuaders specializing in changing more central beliefs, still has to find economical ways of changing the less consequential beliefs he specializes in. (Rokeach, 1968, p. 183)

Rokeach has suggested that there is a hierarchy of beliefs, labeled A through E, that ranges from totally incontrovertible to inconsequential;

Type A: Primitive beliefs, 100 percent consensus
Type B: Primitive beliefs, Zero consensus
Type C: Authority beliefs
Type D: Derived beliefs
Type E: Inconsequential beliefs

In Rokeach's hierarchy, Type A beliefs are "fundamental, taken for granted axioms that are not subject to controversy because we believe, and we believe everyone else believes" (Rokeach, 1963, p. 180). Type B beliefs are as incontrovertible as Type A, but are self-centered. That is, "they are about ourselves and some of these beliefs are positive ones-Type B+ and some are negative
ones-Type B-"(Rokeach, 1963, p. 180). Positive beliefs (B+) represent what persons believe they are capable of, and negative beliefs (B-) represent what persons perceive as inadequacies and fears.

Advertisers are aware that self-perceived sexual prowess is frequently related to self-image. They have targeted erotic, non-rational messages to the public to imply that increased sexuality is a benefit of their product. Both aspects of Type B beliefs, positive and negative, are manipulated by the use of sex oriented advertising. It is common for products to use models who attribute their sexual attractiveness to the use of that product. The concept is to persuade consumers that they will increase their sexual desirability by purchasing the product. The use of sex in advertising performs several functions; it gains attention, creates interest, contributes to the development of an image and enhances recall. All of the message factors can be enhanced by the use of sex; a basic need.

It is reasonable to conclude that advertisements which are based on a strong emotional need or desire are likely to be successful. Advertisers are aware that an aspect of human nature that influences the effect of the advertising stimulus is empathy.

The term empathy, as used by psychologists, means "imaginative projection of one's own consciousness into another human being." The success of movies, fiction published in women's magazines, comic strips, biographical sketches, and television commercials trying to dispense headache pills can be retraced to this propensity to experience the emotions of others. (Baker, 1961, p. 89)

The emotions that people empathize with are universal and basic. In Rokeach's hierarchy, they would be Type A and Type B;
primitive and incontrovertible. As a person matures, the methods of satisfying needs and desires changes and becomes more complex. Nonetheless, the needs stay as strong as ever and understanding this allows the selection of stimulus that will enhance emotional involvement.

In national print advertising, the dominant visual stimulus is a picture, either artwork or a photograph. The picture, as the dominant element, should particularly enhance the involvement of the consumer with the advertisement. According to Baker:

Increased emotional involvement will occur under the following circumstances:

1. If the situation depicted represents a familiar scene to the viewer.
2. If he likes people in the scene.
3. If the picture does not evoke unfavorable associations.
4. If there is nothing in the picture that goes against his (or her) moral convictions.
5. If he doesn't have to change much in the picture.
6. If there is a promise that his desires will be fulfilled.
7. If there is somebody in the illustration that the viewer would like to be. (Baker, 1961, p.90)

All of the listed categories indicate some level of emotion that is provoked by the content of the picture. The use then of sexually oriented visual stimulus would seem to be sensible in advertising because of its ability to amplify the consumer's emotional involvement.

Emotions, as discussed by Baker and Rokeach, are at the core of effective message construction, particularly in advertising.
It has been suggested that the affective value of the message influences recallability. Intense or emotionally charged messages tend to be remembered more than neutral or low intensity messages. The general belief that pleasant messages are remembered more than unpleasant messages has not been empirically supported. Whether the message is pleasant or unpleasant appears to be of less influence than the level of emotional response created by the message. Research by Menzies revealed the following relationship:

1. Frequencies of revival of pleasant, unpleasant and indifferent experiences showed no important differences. But these frequencies increased as intensities of feeling-tone increased.

2. There were no significant differences in the percentage of recalled pleasant, unpleasant, and indifferent experiences. These percentages of recall, however, increased as intensities of feeling-tone increased. (Menzies, 1935, p. 278)

Menzies' study, along with others (Waters & Leeper, 1936; Kanungo & Dutta, 1966), strongly indicates that recall is affected by the intensity of the message and not qualitative values: pleasant or unpleasant. The stimulus employed in an advertisement should be of a high affective nature to extend the consumer's emotional involvement. Sex, a basic and emotional need, would seem to be a stimulus that would create the affective levels necessary to enhance recall.

Sex oriented advertising can accomplish all of the primary functions of advertising. Attention, the first mission of advertising, is accomplished by using the shock value created
by explicit artwork and copy. Baker proposes that emotional involvement will increase if the consumer is persuaded that desires will be fulfilled. Few desires are stronger than the desire for sexual satisfaction thus guaranteeing that the interest of the consumer will be provoked. The use of strong emotions to increase the affective quality of the message, according to Menzies, will enhance the ability of the consumer to recall the message. Finally, the product image will be anchored to strong beliefs that the consumer can easily identify with.

Today's advertisers seem to be convinced that the heightened use of sexual themes will be an effective means of accomplishing their goals. Scholarly research (Alexander & Judd, 1978; Steadman, 1969) has tended to refute this supposition; particularly as it relates to brand recall. Brand recall is critical in advertising because it forms the vital link between message exposure and the actual purchase of the product. The importance of recall is plain. This schism between scholars and practitioners will be explored by this research.

Previous research of nudity in advertising has dealt with female models and male subjects. An examination of current advertising will show that the use of male models in ads with sexual themes is increasing. Both male and female audiences are targeted by ads with sexual themes containing male models. To determine if the use of male nudity is an effective strategy for both sexes, male and female subjects were used. Use of both
sexes increases the external validity of this study.

The following research explores whether the use of male models posed in varying levels of undress, in ads where the product is congruent with the use of a sexual theme, will have the same effect on brand recall as did female models in previous studies. Recall as a measure of ad effectiveness is deemed appropriate because of its obvious importance to achieving advertising goals and its capacity of being quantitatively measured.

The hypothesis developed for this study is: The recall of product brand names will significantly decrease for both sexes as the level of nudity depicted in the ad increases.
METHODOLOGY

Design

This experiment is a 2 (male, female) X 3 (levels of nudity), post-test only design. The treatment was administered to three groups of women and three groups of men. Dependent measures were administered immediately after the treatments.

Procedure

Each treatment was administered in the following manner:

1. The administrator gave a brief introduction, explaining only that the subjects would view the materials and be asked to fill out questionnaires concerning the contents.

2. The subjects then viewed the stimulus materials. After the initial viewing they were given questionnaires that measure their ability to recall the brand name.

3. The administrator then told the subjects that they would view the stimulus materials once again. In this treatment, subjects were asked to complete a form after viewing each individual ad in the series. They were then given the standard instructions for that form.

4. The subjects were then shown the stimulus ad. After viewing the ad, the subjects were administered Mehrabian's Verbal
Report Measures of Emotional State. The administrator answered questions concerning the experiment and debriefed the subjects.

Independent Variables

The stimulus materials consisted of five ads. Four of the ads were selected from issues of *Photographis*, an annual accumulation of the best print advertising world-wide. The ads were foreign or industrial ads to minimize brand name recognition by the subjects. The use of ads chosen by *Photographis* guaranteed a uniform level of excellence. The fifth ad was created by the experimenter, with the assistance of professionals in the field of advertising and visual communication. This ad was varied across three levels of nudity.

The independent variable in this study is the level of nudity displayed in the stimulus ad. In a previous study of nudity (Alexander & Judd, 1978), the model was displayed with no props and the levels were obtained by photographing the model from different angles and distances. An examination of current advertising did not reveal any examples of models who did not have some prop or clothing included in the photograph. Another factor not controlled in the Alexander and Judd study was the varying distances from which models were photographed. Distance is a variable that affects perception and should be controlled (see stimulus preparation). To avoid these limitations of stimulus preparation, the current study uses a different technique.
To avoid any reaction to the stimulus due to incongruity between the product and the use of nudity, a product was chosen in which the use of sexual themes is common; cologne. The model was posed with the product in his right hand, at shoulder level. The three levels of nudity were established in the following manner:

Level 1 - A non-sexual illustration of a pastoral scene.

Level 2 - The model was photographed with a bare chest and a sarong that extended from the waist to mid-thigh. The photos were all cropped just above the knee.

Level 3 - The sarong was removed and a full frontal exposure was made.

All elements of the key stimulus ad were held constant except for the removal of the clothing. The other elements in the ad created were:

1. A fictitious brand name, Adam, positioned in the lower right quadrant over an apple symbol.

2. A symbol, a line rendering of an apple with a bite out of it.

3. A headline; "Back to Nature," positioned directly under the illustration.

4. Body copy; "In the beginning God made Adam, now we make the cologne."

All of the above elements were in white, reversed out of a black background. All of the design and execution of the ad
was either conducted or supervised by professionals in the fields of advertising and photography. Every effort was made to insure that the test ad would not appear different in any uncontrolled way from the cover ads (see stimulus preparation).

The other four ads in the presentation were employed as filters or covers. The purpose of this study was to measure recall ability as a function of nudity. It is apparent that the difficulty of the task assigned to the subjects must be of a high enough level to challenge their recall ability. The four ads served to create this level of difficulty. The subjects were not informed that any of the ads were in any way different, except in their apparent content. The subjects were asked to recall elements present in all of the ads. By keeping all the ads constant in ordering and length of exposure, and manipulating only the level of nudity in the key stimulus ad, it was possible to determine the effect of nudity on recall.

Dependent Variables

Three dependent measures were used. Two were direct measures of the subjects' ability to recall the stimulus ad. The other, Mehrabian's verbal report measures of the three dimensions of emotional state, assessed the effect of the key stimulus ad on the subjects' emotional state.

The testing measurements for recall were created by the experimenter. The five brand names presented in the ads were listed and assigned letter designations, A through E. Directly below the
brand names a list of sixteen elements prominent in the ads (four from each) was given. The subjects were asked to match the products with the appropriate elements from the stimulus materials. The other dependent measure of recall was less structured. The products shown in the ads were listed and the subjects were required to report the brand name for each product (see Appendix A).

Mehrabian's verbal report measures of emotional state were administered after the recall measurements. To help insure that it was the varied ad that was affecting the subjects the ad was shown again (see procedures). The subjects then responded to the bi-polar scales for the pleasure and arousal dimensions of Mehrabian's instrument. Mehrabian's measures consist of six sets of nine point semantic differential scales for each dimension (see Appendix B).

Mehrabian's measurements of emotional state were used to determine the relationship between emotional response and recall. Mehrabian (1981) theorizes that "(1) the bulk of the referents of implicit communication are emotions and attitudes, likes-dislikes, or preferences, and (2) all emotional reactions can be described concisely in terms of various combinations of pleasure-displeasure, arousal-nonarousal, and dominance-submissiveness" (Mehrabian, 1981, p. 10). The pleasure and arousal dimensions were used in this study because of their direct relationship to preference.
Subjects
The subjects in this experiment were 120 undergraduate students in various communication classes at the University of Central Florida. The subjects were almost equally divided between men and women; 63 women and 57 men. The classes were chosen on the basis of availability and ranged from a photography class to a class on leadership. The treatments were assigned at random to intact classes. Cell sizes ranged from 18 to 26 for females, for males the range was 13 to 21.

Stimulus Preparation
This study was concerned with the ability of subjects to recall a specific advertisement. In order to be certain that the measured effects are caused by the manipulation of the independent variable a great deal of effort was expended in the creation of the stimulus ad. Several factors have been shown to affect the ability to learn messages presented in the visual mode. Jack (1973) in his study of logotypes concluded that:

These factors include design (graphic structure), color (both intensity and hue), size (the total amount of available space occupied by the message), complexity (the number of layout elements involved), location (the proximity of the message to the subject), duration (the length of exposure time), repetition (the frequency of exposure), the appropriateness to the situation, and the usefulness of the message to the receiver. (Jack, 1973, p. 6)

All of these elements potentially affect recall of stimulus, and therefore were controlled.
There is an infinite number of solutions to any design problem in advertising. There are "schools" and theories of design, but it is generally accepted that the most simple designs are the most effective. The same principles of design that apply to all art forms apply to advertising. According to Nelson:

The principles of design apply (1) to each element within the ad and (2) to the collection or arrangement of the elements as a whole. . . the following list, from an advertising standpoint, can be considered reasonably universal and inclusive:

1. The design must be in balance.
2. The space within the ad should be broken up into pleasing proportions.
3. A directional pattern should be evident.
4. A unifying force should hold the ad together.
5. One element, or one part of the ad, should dominate all others. (Nelson, 1977, p. 124)

In the creation of the manipulated variable for this study these principles were adhered to.

In designing the key stimulus ad, a major consideration was that the ad must be manipulated, but only certain parts of it. Only the level of nudity was to be changed, all other elements had to be held constant. To surmount this problem a "frame" for the photograph was designed that contained all other elements of the ad.

The photography used in the ad was in a 35 mm format and in color. The decision to create the ad in color was made so as to make the ad comparable to current print advertising. The use of black and white photography in full-page magazine advertising is
currently less used and to create the stimulus ad in black and white would differentiate it from the other ads used in the study.

The photos were printed using the Cibachrome color reversal process. A mezzotint screen was placed between the transparency being printed and the Cibachrome paper. The screen was used to duplicate the halftone reproduction that is used in print advertising. The Cibachrome prints were all made to the same size and by laying the prints on the "frame," the finished ad was created.

To create the "frame", a positive lithographic image of the type was made. The reversed image was produced by contact printing on black and white photo paper. This process produced a clear image of the product brand name, logo, headline and body copy with white type and art reversed out of black.

The layout was balanced "informally" with the logo and product brand name positioned in the lower right quadrant. The headline and body copy were positioned directly beneath the photograph. Three different type styles were used; the product brand name was in 48 point Company, the headline was 36 point Serif Gothic Bold, the body copy was 12 point Avant Garde Demi.

Four other ads were used in the stimulus as cover for the manipulated ad. The ads were selected from issues of Photographis from 1969 to 1976 (see independent variable). The following brand names and products were represented.

1. Air Canada - Air travel
2. Monet - Gold jewelry
3. Sherle-Wagner - Ceramic fixtures
4. Wega - Audio-visual equipment

All of the ads were in color. They were all copied using a 35 mm format and produced as slides. The use of slides as the stimulus format allowed the administrators to control image size for the presentation. The length of exposure to the individual ads was also precisely controlled. Each ad was displayed for eight seconds.

The ad created for this study is in all respects well designed. There has been no indication that the ad significantly differentiates from the other ads used in the stimulus presentation; other than in brand name and product. This control of the stimulus is obviously vital to the validity of the research; both internal and external.
RESULTS

To more completely understand the results, it would be useful to restate the hypothesis. It is:

The recall of the product brand names will significantly decrease for both sexes as the level of nudity in the ad increases.

The hypothesis predicts a negative relationship between the use of male nudity in advertising and brand recall.

Three dependent measures were used to determine the effect of the stimulus on the subjects. Two recall instruments, aided and open-ended, provided direct tests of the hypothesis. The third dependent measure was emotional response, operationalized by Mehrabian's scales for the measurement of emotional state (see dependent variables).

Aided Recall Data

The most effective test of the hypothesis was shown to be aided recall measure. The cell means are shown in Table 1.
Table 1
Ratings of Aided Recall - Cell Means

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<td>2.05</td>
<td>2.05</td>
<td>2.61</td>
</tr>
</tbody>
</table>

Analysis of the above data included Pearson $r$ correlation coefficients, two-way Analysis of Variance (ANOVA) and Chi-square tests of difference.

The Pearson $r$ correlations were conducted to determine the relationship between levels of nudity and recall. The obtained correlation was positive for males ($r=.582,p<.01$) while the corresponding relationship for females was ($r=.054,ns$). The predicted negative relationship between male nudity and recall was not observed.

A 2 (sex of subject) X 3 (level of nudity) analysis of variance was conducted on the aided recall data. Due to an extremely high error variance, no significance of the main or interaction effects were obtained. Non-parametric statistics, such as Chi-square, are not affected by error variance. Therefore, Chi-square tests of aided recall were used to assess differences between experimental treatments.

The Chi-square tests of difference were conducted on the data as total proportions. Total proportions for the individual cells
were determined by multiplying the number of subjects in each cell \((n)\) by 4, the total possible correct selections, and comparing it to the actual number of correct selections made. Table 2 shows the proportions and the \(n\) in each cell.

**Table 2**

**Total Proportion of Correct Response for Aided Recall**

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Pastoral</th>
<th>Partial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>(n=23)</td>
<td>25/92</td>
<td>(n=13) 25/52</td>
</tr>
<tr>
<td>Female</td>
<td>(n=18)</td>
<td>37/72</td>
<td>(n=19) 39/76</td>
</tr>
</tbody>
</table>

The Chi-square analyses were used to determine if there was a significant difference in the proportion of correct responses at the varied levels of nudity for both males and females. The predicted response was that increased nudity would reduce recall. The Pearson \(r\) correlation coefficients had already determined that the relationship was positive, not negative as predicted. The Chi-squares were used to explore this relationship in more depth. Table 3 shows the Chi-square values and their probability of significance.
Table 3  
Chi-square and Probability Scores for Aided Recall

<table>
<thead>
<tr>
<th>Response Type</th>
<th>ABC</th>
<th>AB</th>
<th>AC</th>
<th>BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>$x^2 = 27.59$</td>
<td>$x^2 = 6.404$</td>
<td>$x^2 = 27.56$</td>
<td>$x^2 = 4.608$</td>
</tr>
<tr>
<td></td>
<td>$p &lt; .001$</td>
<td>$p &lt; .012$</td>
<td>$p &lt; .001$</td>
<td>$p &lt; .032$</td>
</tr>
<tr>
<td>Female</td>
<td>$x^2 = 4.911$</td>
<td>$x^2 = 0.0007$</td>
<td>$x^2 = 3.46$</td>
<td>$x^2 = 3.605$</td>
</tr>
<tr>
<td></td>
<td>$p &lt; .086$</td>
<td>$p &lt; .993$</td>
<td>$p &lt; .063$</td>
<td>$p &lt; .058$</td>
</tr>
</tbody>
</table>

Note. Nudity levels are given letter designations - A = Pastoral, B = Partial, C = Total.

Table 3 shows significant differences in recall at all levels of nudity (ABC) for males. While significant differences were not observed among the three conditions for females, the probability level ($p < .086$) approached significance. Chi-squares between all possible pairs of the treatments were conducted to isolate the source of difference for both males and females.

For males, all the comparisons were significant. The greatest differences in means occurred between the pastoral and the total nudity conditions ($p < .001$). The comparisons between all levels for females show no significance but the differences in the probabilities are striking. The probability of difference between levels A and B for females is virtually nonexistent but the AC and BC contrasts closely approximate significance. While emphasizing that the probability of difference between scores for female subjects at level A as compared to levels B and C is not
significant there does appear to be a definite trend.

To summarize the above findings, males were more likely to remember the brand name when shown with the total nude than with a non-sexual scene. A partially nude model significantly enhanced recall of the brand name more than the pastoral scene but not as much as the total nude. Female subjects showed a non-significant trend in the same direction as the male subjects. Recall was noticeably higher in the total nudity condition than in either of the remaining conditions for females.

Open-ended Data

An open-ended test of recall was also administered (see dependent variables). There was some reservation concerning the appropriateness of such an instrument for this particular study. Due to the limited exposure to the stimulus, it was felt that the subjects would not have enough of an opportunity to learn the brand names and products without some aid. The accumulated data tend to confirm this conclusion. Chi-square tests were conducted on the scores of the open-ended instrument and no significant differences were obtained.

Emotional Response

Since the affective quality of the ads is a potential intervening variable, it was thought appropriate to measure the emotion eliciting attributes of the stimulus. Two dimensions, pleasure and arousal, of Mehrabian's verbal report
measures were administered to the subjects (see dependent variables).

A two-way (sex and nudity) analysis of variance was performed on the pleasure and arousal data. The only result that approached significance was the main effect of the subject's sex on the pleasure dimension ($f = 2.52$, $df = 1.118$, $P < .15$). The mean pleasure scores were 4.21 for males and 3.87 for females. Pearson $r$ correlation coefficients were also conducted on the affective data. Pleasure and arousal had almost no relationship to brand recall for either males or females.

The statistical analyses of the data show that male nudity is positively related to recall for both males and females but the relationship is significant only for males. The data also demonstrates that the pleasure and arousal measures did not predict recall for either males or females.
DISCUSSION

The hypothesis of this study predicted a negative relationship between the use of male nudity in advertising and brand recall. As the level of nudity increased, a concomitant decrease in brand recall is predicted. The results of the study did not support this hypothesis. Increasing the level of nudity of the male model resulted in significantly greater brand recall for a male audience. Females also registered greater recall of the stimulus as nudity of the model increased but did not reach statistically significant levels.

The hypothesis tested was based upon previous research investigating the use of nude models in advertising (Alexander & Judd, 1978; Steadman, 1969). In both previous studies female nudes were used exclusively and recall was measured for male audiences only. The present study employed a male model at various levels of nudity and recall data was gathered for audiences of both sexes.

Alexander and Judd, as well as Steadman, found a significant difference in recall between ads with a non-sexual theme and illustrations that contained nudity. Their research suggests that non-sexual themes are more likely to enhance brand recall.
than ads that contain nudity. Alexander and Judd's data indicated an upsurge in recall at the maximum level of nudity employed (full-frontal). The unexpected increase was explained as "possible shock experienced when viewing frontal nudity" (Alexander & Judd, 1978, p. 50). The shock would cause the viewer to practice selective defense from the image, directing their attention to other details of the ad, such as the brand name. This could result in greater brand recall.

The present research found exactly the opposite results when presenting increasing levels of nudity. With a non-sexual theme (pastoral scene) recall level for males was very low ($\bar{x} = 1.08$) compared to females ($\bar{x} = 2.05$) (note: aided recall measure). At the next level, where the male model is introduced in the illustration, the recall scores for males showed a significant increase over the pastoral stimulus ($\bar{x} = 1.92, p < .012$, Chi-square). Female recall response remained at the same level recorded for the pastoral stimulus. The final level, full frontal nudity, elicited significant increases in recall over the pastoral and partial nude levels for males ($\bar{x} = 2.66, p < .001$ (pastoral), $p < .032$ (partial)). Recall response was noticeably higher for females at the final level ($\bar{x} = 2.61, p < .058$).

The difference in the results of this study and previous research of nudity in advertising is marked. The results of the recall measures and the measures employed to determine emotional state would tend to refute both the results and the
rationale of previous studies.

The idea that the exposure of a total nude would shock subjects to the point where they would avoid the illustration and be attentive to other elements in the ad was not supported. The results of Mehrabian's verbal report measures of emotional state indicated that the total nude did not induce a higher level of emotional response than did the pastoral scene or the partial nude. Apparently, the total nude appeared unusual to subjects but not emotionally shocking.

The increase in brand recall is most probably explained by a combination of factors. The use of total frontal nudity in advertising is unusual. A review of current advertising did not reveal the use of frontal nudity by any advertiser. This uniqueness of total nudity in advertising does not explain all of the differences in the data. The means of both sexes were comparable except at the pastoral level but only the males showed significant differences between all levels. Recall response by the female subjects was increased solely by exposure to the total nude.

The female subjects demonstrated an equal or higher level of recall response than the males across all levels. However, many studies agree that females excel in short term memory tasks. No matter what stimulus is presented, this trait will have an effect. Research by Pishkin and Shurly indicated that women perceive details and subtle cues more quickly than men (Pishkin & Shurly, 1965). When the male model was introduced, the response
scores for females remained stable although the product did not have gender relevance. Research by Exline indicates that women seek person-oriented information (Exline, 1962). The presentation of a model may have enhanced this tendency to seek person-oriented information overcoming the lack of product-gender relevance.

The recall response for females increased when the total nude illustration was used in the stimulus ad. This increase was attributed to a combination of the above factors. The strongest factor may be the uniqueness of the use of total frontal nudity in an advertisement. This uniqueness would serve to enhance the female's desire for person-oriented information. Superior memory skills as noted, would also buoy the female subjects recall response scores.

The male subjects recall response at the pastoral level was low \( \bar{x} = 1.08 \). This low score can most probably be attributed to the lack of product relevance to the male subjects. The ambivalent nature of the pastoral scene did not encourage the male subjects to pay close attention to the stimulus ad. When the male model was introduced, the gender identity of the product was clearly determinable and recall response significantly increased over the pastoral level \( p < .012 \). That the male subjects' recall would improve above the pastoral level follows research findings concerned with sex-related differences in learning ability.
Women and men are not rewarded equally for learning in every situation. The value attached to learning is clearly defined in terms of relevance (to the learner) of treating any subject or object in an analytic or perceptive manner. In other words, "being correct" has differential importance for men and women. "Being correct about" topics of importance to each sex specifically contributes much to the explanation of differential funds of information between the sexes. (Britt, 1978, p. 299)

The recall response of the male subjects increased significantly when the total nude illustration was used in the stimulus ad. This increase most likely is attributable to a combination of factors. As with the female subjects, the strongest factor is the uniqueness of the use of total frontal nudity. Subjects appear to pay more attention to the total nude. This tendency, combined with a product relevance for males, would explain the enhancement of recall ability for the male subjects.
SUMMARY AND CONCLUSIONS

The use of male nudity in advertising, according to the current research, appears to have a positive effect on brand recall for both sexes. The factors that may have contributed to the positive effect for males are product-gender relevance and the unusual presentation of a total nude. The female subjects' enhanced recall ability when presented with the total nude condition is attributable also to the uniqueness of the ad. Females' overall response was affected by both a tendency to seek person-oriented information and their superior to males short term memory ability.

The identification and subsequent attention to a product that is used by one's gender would seem to be logically apparent. Accordingly, males matched the females superior short term memory ability only when they recognized the gender orientation of the product as male. Gender relevance was significantly enhanced by the unique (when compared to current advertising) use of total frontal nudity in the stimulus ad. Women overcame the lack of relevance because of their memory ability and desire for more person-oriented information. As with the male subjects, females' recall was enhanced by the uniqueness of the total nude.

The current research indicates that the use of male nudity in advertising has a positive relationship with the primary functions
of an advertisement. The results indicate that the attention of the subjects increased as nudity increased. The subjects were able to remember more elements of the stimulus ad as nudity increased. Logically, an increase in brand recall would indicate an increase in attention. Interest and brand image cannot be easily compared. Both interest and brand image demand an involvement by the consumer that exceeds the testing abilities of the dependent measures used in this research. It does not, however, seem likely that attention and recall would increase without there being some effect on interest and brand image.

Future research is needed to test the limits of effective use of sexual themes in advertising. For example, how tangential to the product can implied sexual benefits be and still produce an effective advertising technique? Another area of future research would be to increase the number and sex of the models. This and previous research limited the number of models used to one. More than one model and a mixing of gender could have an impact on the effectiveness of an ad. Perhaps the most important factor in future research will be the amount of emphasis placed on stimulus preparation. The stimulus should be designed with the ability to generalize to actual advertisements. The attention to design theory and production techniques will obviously have an important impact on the data resulting from research that uses an experimental ad as a stimulus.
APPENDIX A

Recall Measures
On the following form write the brand name, from the advertisements you just viewed, that you associate with the listed products.

<table>
<thead>
<tr>
<th>Products</th>
<th>Brand Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Travel</td>
<td></td>
</tr>
<tr>
<td>2. Gold Jewelry</td>
<td></td>
</tr>
<tr>
<td>3. Cologne</td>
<td></td>
</tr>
<tr>
<td>4. Audio-visual equipment</td>
<td></td>
</tr>
<tr>
<td>5. Ceramic fixtures</td>
<td></td>
</tr>
</tbody>
</table>
On the following form match the product to whatever word or phrase you feel it is associated with. All of the words or phrases match with a product.

A. Air Canada
B. Monet
C. Adam
D. Wega
E. Sherle-Wagner

___ Green  ___ Beach
___ Hand    ___ Bowl
___ The Golden Manner  ___ Blue
___ Television  ___ Back to Nature
___ Apple    ___ Stereo
___ Palm trees  ___ Black
___ Cologne  ___ Flowers
___ Charms  ___ Red
APPENDIX B

Emotional Response Measures
Each pair of words on the following form describes a feeling dimension. Put a check mark somewhere along each line (Example: \[\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}}\] to show how you feel right now. Some of the pairs might seem unusual, that is, not exactly like opposites, but you'll probably feel more one way than the other if you think about it carefully. For each pair, then, put a check mark closer to the adjective which you believe best describes how you feel right now. The more appropriate one of the adjectives on the line is as a descriptor of your feelings now, the closer you should put your check mark to it.

Let us take a pair of words, "tired" versus "inspired."

If you feel extremely tired right now and not at all inspired, then place your check mark as follows:

Tired \[\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}\text{\textemdash}}\] Inspired

If you feel extremely inspired you would check the opposite end of the scale. If you feel neither tired nor inspired you would mark the middle point of the scale. Be sure to mark that point which is closest to your feelings RIGHT NOW.
Happy

Wide-Awake

Satisfied

Excited

Pleased

Frenzied

Hopeful

Aroused

Contented

Jittery

Relaxed

Unhappy

Sleepy

 Unsatisfied

Calm

Annoyed

 Sluggish

Despairing

Unaroused

Melancholic

Dull

Bored

APPENDIX C

Stimulus
BACK TO NATURE.

In the beginning God made Adam. Now we make the cologne.
REFERENCES


