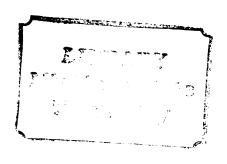


THE INFLUENCE OF ATTITUDES ON MESSAGE RECALL THESIS FOR THE DEGREE OF M. A. MICHIGAN STATE UNIVERSITY

LYSSA L. NEWHALL 1974 THESIS.



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ABSTRACT

THE INFLUENCE OF ATTITUDES ON MESSAGE RECALL

Ву

Lyssa L. Newhall

In this investigation, the influence of attitudes toward sexy advertisements on the recall of sexy advertisements is studied. More and more, advertisers are employing sexy advertisements to advertise their products. But little public research has been done in order to discover how these sexy advertisements affect their audiences.

The influence of attitude on recall, as well as other behaviors, has been documented by several studies.

Individuals have been shown to learn more readily material which is congenial with their social attitudes than material that is not congenial.

It has also been shown that sex in advertisements has a disruptive effect on memory. It has been suggested, too, that congruity between the product and advertisements for that product may increase recall.

In the present investigation, 20 full-page, color magazine liquor advertisements were rated by 109 Ss, students in undergraduate advertising classes at Michigan State University, to determine the sexiness of each of the ads.

A second group of 61 Ss were given a questionnaire and then shown the same 20 advertisements. The questionnaire was designed to ascertain the Ss' backgrounds and usage of beverages, including liquor, the product advertised. Ss were also asked in the questionnaire to rate how appropriate they considered sexy advertisements to be to advertise a number of beverages, including liquor. This was considered a measure of the perceived intrinsic sexiness of the product.

A 7-point semantic differential exercise was also used to ascertain the $\underline{S}s'$ attitudes toward the concept "sexy advertisements" on 17 bipolar adjective pairs.

After completing the questionnaire and being shown the 20 advertisements, the <u>Ss</u> were shown a 30-minute movie. They were then shown the same 20 advertisements, only in a different random order, and asked which of the advertisements they recalled.

It was expected that those individuals with favorable attitudes toward sexy advertisements would recall more sexy advertisements than those individuals with unfavorable attitudes toward sexy advertisements. Another hypothesis was that there would be a direct relationship between recall and the ratings of sexiness of sexy advertisements for those individuals with favorable attitudes toward sexy advertisements and an inverse relationship for those individuals with unfavorable attitudes. And, lastly, it was hypothesized that those individuals rating sexy advertisements as appropriate to advertise a particular product would recall more

sexy advertisements for that particular product than would those individuals rating sexy advertisements as inappropriate.

None of these hypotheses were supported by the resulting data. In addition, it was found that there was some support for an opposing hypothesis that individuals rating sexy advertisements as inappropriate to advertise a particular product will recall more sexy advertisements than will those individuals rating sexy advertisements as appropriate to advertise a particular product.

It was found, however, that individuals with unfavorable attitudes toward sexy advertisements recall more non-sexy advertisements than those individuals with favorable attitudes and individuals rating sexy advertisements as inappropriate to advertise a particular product recall more non-sexy advertisements for that particular product than individuals rating sexy advertisements as appropriate to advertise a particular product.

Accepted by the faculty of the Department of Advertising, College of Communication Arts, Michigan State University, in partial fulfillment of the requirements for the Master of Arts degree.

Director of Thesis

THE INFLUENCE OF ATTITUDES ON MESSAGE RECALL

Вy

Lyssa L. Newhall

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CHAPTER I

THE PROBLEM AREA

Introduction

Open just about any adult magazine and leaf through it for a while and sooner or later an advertisement will appear which someone would judge as sexy. These sexy advertisements employ sex in a number of ways, such as in illustrations and copy; and appeals to sex are used to advertise an amazing variety of products.

These ads used to feature only women, but recently they have become liberated themselves, and now feature not only men and women together, but also men alone.

One would be led to believe from all this use of sexy advertising that researchers have looked carefully into the use of sexy advertisements and their effects, and that the information from these careful studies is used to skill-fully prepare these ads. But, a search for public literature on the subject indicates that this does not seem to be the case.

In order to systematically look at the subject of sexy advertisements and their effects, it is first necessary to look at more general, although relevant, information.

Here, a general communication model is examined.

And from this model, the concepts of the message and the receiver are developed. These are two essential concepts to the investigation at hand.

A communicator or source, in this case the advertiser or his advertising agency, usually concentrates on the first of these important concepts, the message. In this case, the message is the advertisement, specifically, the advertisement designed to elicit associations with sex, or what is perceived as sex.

But who are the receivers of the message, the audience? In all probability, the advertising agency also concentrates on this concept and knows who the audience, the receivers of the message, are intended to be.

But the act is not as simple as the source sending the message which is received by the destination as sent, and which produces the desired effects. It is the factors that mediate between the sending of the message and whether it is received, by whom it is received, and its effects that are germaine to the investigation at hand.

The following communication model is examined in order to present a more clear impression and explanation of what actually does occur in a communication situation, as well as allowing more accurate prediction as to what might occur, given a particular situation.

A Communication Model

Any and all communication requires at least three elements: the source, the message, and the destination.

Another essential element of communication is the channel over which the message is sent. The source encodes the message; that is, he takes the information to be shared and puts it in a form that can be transmitted. Once a message is coded and transmitted, it is quite free of the sender. In order to complete the act of communication, the message must be decoded.

There are three levels in the central nervous system at which the message may be received. These levels are: the sensory and motor skill level, the dispositional level, and the representational level. A message may constitute a stimulus at any or all of these three levels. Responses at the sensory and motor skill level are learned, almost automatic responses. The dispositional level is the level of learned integrations; that is, attitudes, values, sets, etc. These are referred to as intervening variables. The stimulus may then be transmitted to the representational level where meanings are assigned and ideas considered. All of this might result in a response at the motor skill level.²

Communication occurs when an individual or individuals intentionally generate relevant effects on others by

Wilbur Schramm, 'How Communication Works,' in The Process and Effects of Mass Communication (Urbana, Illinois: University of Illinois Press, 1954), pp. 3-4.

²Ibid., pp. 11-12.

arousing meanings.³ The word communication, therefore, identifies effects as well as the process that creates them. And the meaning generated is ideally relevant to the communicator's goals.

It is helpful to focus on all, or at least to be cognizant of the need to focus on all, of these components in order to better understand and evaluate purposive communication.

Advertising is one such example of purposive communication; in this case, persuasive communication. When looking at advertising as a mass communication process, several differences exist between advertising and the general communication process described above. The mass communication process of advertising is more specific than the general process described above.

The source of the advertising message is the producer of the product advertised, or the producer's advertising agency. The message, the advertisement, is usually transmitted over a mass media channel, such as a magazine, television, or radio, to the destination, or audience. Therefore, the potential audience of the advertisement will be the entire audience of the particular mass media over which that message has been transmitted. But this entire audience is not always the intended audience of an advertising message.

Wallace C. Fotheringham, <u>Perspectives on Persuasion</u> (Boston: Allyn and Bacon, Inc., 1966), p. 128.

Usually the intended audience is only a segment of that audience, but is reached by that particular channel, or media.

It is usually the communicator's goal in advertising not only for the receiver to decode the message as it was intended, but also to respond positively by exhibiting other behaviors, such as purchasing the particular product. In order to do so, the dispositional levels of the individuals of the intended audience must be considered and dealt with in order for the message to be successfully decoded.

The Message and Communication Effects

Any human communication involves the production of a message by someone, and the receipt of that message by someone. A message is viewed as a sign or a group of signs, signals and/or symbols, intentionally used by a source to arouse signification or symbolization.

There is no such thing as a simple and easily predictable relationship between message content and effect.

But there are some conditions which presumably must be fulfilled if a message is to arouse its intended response.

They are:

- 1. The message must be so designed and delivered as to gain the attention of the intended destination.
- 2. The message must employ signs which refer to experience common to source and destination.

⁴Fotheringham, <u>Perspectives on Persuasion</u>, p. 54.

- 3. The message must arouse personality needs in the destination and suggest a way to meet those needs.
- 4. The message must suggest a way to meet those needs which is appropriate to the group situation in which the destination finds himself at the time when he is moved to make the desired response.⁵

Most important to the discussion of the message and communication effects in relation to attitudes are the second and third requirements. Each person in the communication process is both an encoder and a decoder. But no two persons employ the same system to encode and decode. Also, people tend to classify and catalogue experience in relation to other experience, as well as to needs and interests. As this catalogue system becomes less and less flexible, messages tend to be rejected that do not fit its structure, or are distorted so that they do fit. Message meaning, even for the same message is a highly individual and variable experience.

The treatment of a message is a decision which the communication source makes in selecting and arranging codes and content of the message. The treatment of a message must be accomplished in such a way as not to violate the expectations of the audience, although expectations vary among audiences, topics, and communicators. Message treatment makes a difference to the persuasive communicator only when the treatment is not in accord with the expectations of the receiver. When a message is treated so as to arouse no

⁵Schramm, The Process and Effects of Mass Communication, p. 13.

emotions or reactions in the receiver, then the influence of the message will stem from content variables. But when the receiver is "aroused" by the treatment, he tends to discount the message. For example, if a written message is well written, using correct grammar and spelling, the influence of the message is more likely to stem from content variables of the message than is the same message poorly written, using incorrect grammar and spelling, in which case the message may be discounted. Although the receiver may learn, he may not have his attitude changed, nor have emotional reactions to the message which are desired by the communicator. Message treatment can also be defined as the various ways in which one can elicit the same behaviors from a receiver.

In predicting communications effects, a message is much more likely to succeed if it fits the patterns of understandings, attitudes, values, and goals that the receiver brings to the communication situation. It must be kept in mind that communication effects are the result of a number of forces, and the communicator can control only some of these. There are at least four important elements which determine what response occurs, and the message is only one of these. The other three elements are: the situation in which the communication is received and in which the

⁶Erwin P. Bettinghaus, Persuasive Communication (New York: Holt, Rinehart and Winston, Inc., 1968). p. 164.

⁷Ibid., p. 161.

response, if any, must occur; the personality state of the receiver (including attitudes); and his group relationships and standards.⁸

A group of limitations can also arise from unfavorable contextual factors accompanying the message. What is said can be limited by who says it, who sponsors the message, by unfavorable relationships between the source and message receivers, by negative reactions of groups relevant to the receivers, by media carrying the message, and by the presence of competing messages. 9

The next stage in the communication process is the decoding of the message by the destination, the receiver of the message.

The Receiver

It is the task of the communicator to identify specifically what audience he seeks, and what means of securing audiences can be adapted to his resources. It is of prime importance to the communicator to know who receives the message. The communicator not only seeks relevant effects, but seeks them in particular individuals and groups. Effects in some receivers are more pertinent than in others.

According to Berlo, purpose and audience are not separable. All communication behavior has as its purpose

⁸Schramm, The Process and Effects of Mass Communication, p. 17.

⁹Fotheringham, Perspectives on Persuasion, p. 171.

the eliciting of a specific response from a specific person or group of persons. When the purpose of the source and the receiver are incompatible, communication breaks down. 10

In any situation, from the point of view of the source or the receiver of the communication, purposes may be placed on a consummatory-instrumental continuum. At one end are purposes which are satisfied entirely in the consumption of the message alone. At the other end are purposes which are satisfied only after the response to the message has been used as an instrument to produce further behavior. 11

In any communication situation there are at least two sets of desired responses: the responses sought by the person producing the message, and the response sought by the person receiving the message.

In general there are four classes of persons, differing in relevancy to the communicator, who can receive messages. These are: intended receivers, those in whom the communicator seeks to develop effects instrumental to his goals; unintended receivers, those for whom the message was not intended and in whom unfavorable effects may be created; irrelevant receivers, those in whom effects are unimportant to the communicator's goals; and interested third parties, those who will produce messages of their own relevant to the

¹⁰ David K. Berlo, The Process of Communication: An Introduction to Theory and Practice (New York: Holt, Rinehart and Winston, 1960), pp. 16-17.

¹¹Ibid., pp. 17-18.

communicator's message and goal. 12

Receivers differ in the ways in which they learn any given response. There are three principles which help to explain the differential responses made by receivers in the same situation:

- 1. Individuals differ in their ability to respond.
- 2. Individuals differ in their readiness to respond.
- 3. Individuals differ in their motivation to respond. 13

Certain communication or persuasive appeals, before they can effect opinion change, must sometimes withstand a host of individual defenses of the receiver such as selective exposure and rejection, as well as selective perception, selective memory, and selective distortion, depending upon the particular receiver of the communication and the particular communication itself.

One explanation of selective exposure is Festinger's theory of cognitive dissonance which provides some background to selective exposure. In summary, his theory states that there may exist inconsistencies among "facts" that we believe are correct and this dissonance generates pressure to reduce the disharmony or to avoid increasing it. The operation of these pressures sometimes leads to cognitive and behavioral

¹² Fotheringham, Perspectives on Persuasion, p. 11.

¹³ Bettinghaus, Persuasive Communication, pp. 54-55.

changes. 14 If receivers avoid increasing dissonance, then a communication may have unfavorable effects before the message itself is presented. If the receiver has an expectation that the message opposes his view or is otherwise disturbing, he may defend himself by avoiding it.

It has further been suggested that meaning does not automatically, necessarily, or invariably operate as a generative force for further behavior. It is not enough that a receiver be exposed to a message and perceive its meaning, or even repetitively be presented a message. To approve of, believe in, and act upon a message requires that it be relevant to or activate some need in the receiver. And not all needs, even when activated, lead to action. This lack of response to the message is known as rejection.

Not only can the entire message be avoided or rejected by the receiver, but also different elements within the message and/or relating to the message can be avoided or rejected or cause the receiver to avoid or reject the message.

It is a documented fact that receivers forget cognitive elements in a communication event. Although studies have generally dealt with forgetting knowledge of content, forgetting of source, media, or any other knowledge the receiver acquired from the message may occur. It has been

¹⁴ Leon Festinger, A Theory of Cognitive Dissonance (Evanston, Illinois: Row, Peterson and Co., 1957), p. 31.

¹⁵ Fotheringham, Perspectives on Persuasion, p. 184.

confirmed that controversial material in messages is forgotten more rapidly than content consistent with the receiver's views. 16 This conclusion will be discussed in some detail below.

It should not be overlooked that forgetting occurs with non-controversial material as well. This seems to be the result particularly when there is low motivation for, or little interest in, the ideas presented. Therefore, although forgetting of controversial material is more likely to occur, forgetting of non-controversial material also occurs, particularly if the material is of 'little interest to the receiver.

Also, what the audience thinks of the communicator may be directly influenced by what they think of his message. A possible by-product of exposing an audience to a persuasive communication is that they will change their opinion of the communicator or the persuader in addition to, or maybe instead of, being influenced by his arguments, which are the message content. And the source's attitude toward any person or object relevant to the communication situation, particularly his receiver, will affect his communication behavior. 18

It has been shown that any particular message will be decoded differently by each receiver. Therefore, not all

¹⁶ Ibid., p. 194.

¹⁷ Marvin Karlins and Herbert I. Abelson, <u>Persuasion</u>: <u>How Opinions and Attitudes are Changed</u> (2nd ed.; <u>New York</u>: <u>Springer Publishing Co., Inc., 1970</u>), p. 122.

¹⁸Berlo, The Process of Communication: An Introduction to Theory and Practice, p. 48.

messages are effective in producing the responses desired by the communicator in all receivers.

Many devices are used by persuasive communicators in attempting to make their messages more effective. One of these devices is distraction.

Sex as a Distractor

It has been found that all distractions confronted by a receiver are not equally effective in making him more vunerable to a persuasive appeal. Zimbardo, Ebbesen, and Fraser (1968) found that subjects were more influenced by persuasive appeals presented in conjunction with sexual distractors as opposed to nonsexual distractors 19

Sex is a strong positive reinforcement for the human organism. By utilizing this rewarding stimulus as a distractor, psychologists have discovered that it is possible to enhance the effectiveness of persuasive appeals.

There are no hard and fast rules at the present time as to how distracting a distractor should be to insure maximum effectiveness in a persuasive situation, although Rosenblatt (1966) suggests moderate distraction might be most successful in enhancing persuasive appeals. 20

It becomes quite evident that attitudes are an

¹⁹ Karlins and Abelson, <u>Persuasion</u>: <u>How Opinions and Attitudes are Changed</u>, p. 17.

²⁰P. Rosenblatt, "Persuasion as a Function of Varying Amounts of Distraction," <u>Psychonomic Science</u>, 5 (May 15, 1966), p. 86.

important mediating factor between the message and the receiver, as well as any effect produced by the message. Although sexual distractors have been found to be effective in a persuasive situation, the audience and their attitudes toward the sexual distractor, as well as the persuasive appeal, in such a situation will be a determining factor as to whether or not sexual distractors are effective.

Ideally, a distractor works by lowering whatever resistance there might be to the message. If the distractor is a sexual distractor, attitudes toward sex might mediate the effect, or determine the strength of a sexual distractor. If a receiver has favorable attitudes toward sex and the use of sex as a distractor, then for that individual, a sexual distractor may be more effective than for the individual with unfavorable attitudes.

Sex is oftentimes used in advertising as a distractor. Its effectiveness in functioning as a distractor in advertising, as well as other functions in such situations, has been examined.

Sexy Advertisements

Little is known about the effect of the use of sexually attractive males and females in advertisements. There are two major experimental articles on the use and the effect of sexy advertisements.

In a study by Steadman (1969), fewer brand names accompanying what were termed sexual illustrations; that is, considered by a panel to show varying degrees of overt

sexual suggestiveness, were correctly recalled than those accompanying what were termed non-sexual illustrations; that is, they contained no overtly sexual references, as considered by the same panel. From the results, it appears that the attitudes acknowledged by respondents to the use of sexual illustrations in advertising had some effect upon the recall of brand names accompanying sexual illustrations. It was found that individuals with attitudes favorable to the use of sexual illustrations in advertising recalled a greater number of brand names than those with attitudes unfavorable to such use. 21

The question of the importance of congruity between the illustration and the product advertised was mentioned in the Steadman study, also. If this congruity does exist, it may contribute positively to recall by projecting the illustration as appropriate and logical. The implication is that those advertisements in which the illustration and message are peceptually, logically associated will be more effective in increasing recall than others in which the illustration and message convey no apparent connection. For example, if an ad for heavy machinery used an illustration of a little old lady, recall probably would not be as great as for the same ad using a picture of a tough-looking construction worker.

²¹Major Steadman, "How Sexy Illustrations Affect Brand Recall," <u>Journal</u> of <u>Advertising Research</u>, 9 (January, 1969), p. 18-19.

Anastasi cites Laslett (1918) and Starch (1954, 1961) in showing the "irrelevant, bizarre, or arty" illustrations in ads may attract a great deal of attention, but may not associate the illustration with the product name, thus making the advertisement ineffective in projecting its message because of the incongruity between the illustration and the copy or type of product. The incongruity may be a major factor in the low recall of such ads.

In another study, done by Morrison and Sherman (1972), several operations were carried out in order to find various effects of the use of sex in advertising. One of the major findings of this study was that sex in advertising has a disruptive effect on memory, measured on several scales. In one of the operations carried out in the study, the time spent looking at an ad and the memory of the product were broken down by sexual arousal ratings. Subjects had previously rated the ads on the degree of sexual arousal stimulated by each ad. At one point, it was found that memory increased as time spent looking at an ad increased up to a certain "human interest level" of sexual arousal stimulated by the ad. Beyond this "human interest level," memory decreased as time spent looking at an ad decreased until relatively high levels of sexual arousal stimulated by the ad, and when time spent looking increased sharply at these high levels of sexual

²²Anne Antastasi, <u>Fields of Applied Psychology</u> (New York: McGraw-Hill Book Company, 1964), p. 319.

arousal, memory decreased to almost nothing.²³ Therefore, memory is likely to be affected by the degree of sexiness of the ad.

A difference was also found between males and females relating to what elements they believed made an ad sexy. In addition, various subtypes were distinguished within each of these sex groups, from their responses as to what elements made an ad sexy. ²⁴

The Influence of Attitudes on Behavior

It was mentioned above that in the Steadman study it was found that expressed attitudes toward the use of sexual illustrations in advertising were correlated with the recall of brand names accompanying sexual illustrations. There is an abundance of psychological literature which supports the theory that attitudes affect behavior in general and recall measures specifically.

Attitude is generally conceptualized as a learned predisposition to respond in a consistent evaluative manner toward an object or class of objects. 25

²³Federal Trade Commission, Modern Advertising Practices, Bruce John Morrison (Unpublished hearing, November 4, 1971), pp. 6-10.

Responds to Sex in Advertising?" Journal of Advertising Research, 12 (April, 1972), p. 16-18.

²⁵G. W. Allport, "Attitudes," in A <u>Handbook of Social</u>
Psychology, ed. by C. A. Murchison (Worchester, Massachusetts: Clark University Press, 1935), p. 799.

Fishbein and Raven (1962) propose an operational distinction between "attitude" and "belief." The former varies along an evaluative dimension, while the latter varies along a probability dimension. It is the former of these two with which this investigation is concerned.

A variety of studies demonstrate the relationship between attitudes and behavior. In a study by Zuckermen (1972), the results suggest that attitudes are inferred from behavior, but only when there are cues implying that behavior is relevant to belief. 27

Frideres, Warner, and Albrecht (1971), in a study of the relationship between subjects' attitudes and overt acts, concluded that only attitudinal congruence between these attitudes and overt acts (as opposed to social participation and disclosure) seemed to have any direct effect on the relationship between attitudes and behavior. ²⁸

Swanson (1972), in an article on knowledge and attitude effects upon behavior, states that attitudes do, indeed, have a cognitive aspect, although they are usually classified

²⁶M. Fishbein and B. H. Raven, "The AB Scales, an Operational Definition of Belief and Attitude," <u>Human</u> Relations, 15 (February, 1962), p. 42.

²⁷Miron Zuckerman, "Personality and Situational Factors in the Process of Inferring Attitudes from Behavior," Psychological Reports, 31 (August, 1972), p. 288.

²⁸James S. Frideres, Lyle G. Warner, and Stan L. Albrecht, "The Impact of Social Constraints on the Relationship between Attitudes and Behavior," <u>Social Forces</u>, 50 (September, 1971), p. 111.

as belonging to the affective domain. ²⁹ In a study done by Rokeach and Kliejunas (1972), the relationship between attitudes was examined in the context of Rokeach's two-attitude theory of behavior (attitude-toward-object and attitude-toward-situation). The results show the importance of both attitudes as determinants of behavior. ³⁰ Although they are independent, and each will predict behavior to at least some extent, behavior is more accurately predicted if both attitudes are taken into consideration, particularly if the two attitudes are weighed for perceived importance.

Bruvold (1972) defines attitudes as "the general affective response to an object" and attitudes are considered to be continuous, as opposed to beliefs and behavior which are given dichotomous classifications. It was reported from the studies done by Bruvold that individuals exhibiting behavior classified as positive in a particular setting will have more positive attitudes than those exhibiting behavior classified as negative. 31

Ostrom's (1969) study is based on the assumption that

²⁹ Jon C. Swanson, "Second Thoughts on Knowledge and Attitude Effects upon Behavior," Journal of School Health, 42 (June, 1972), p. 363.

³⁰ Milton Rokeach and Peter Kliejunas, "Behavior as a Function of Attitude-Toward-Object and Attitude-Toward-Situation," Journal of Personality and Social Psychology, 22 (May, 1972), p. 198-199.

³¹William H. Bruvold, "The Joint Relation of Belief and Behavior to Attitude," Proceedings of the Annual Convention of the American Psychological Association, 7 (Pt. 1, 1972), pp. 151-152.

attitudes have affective, behavioral, and cognitive components. Sympathetic nervous responses and verbal statements of affect are classified in the affective component; overt actions and verbal statements concerning behavior are classified in the behavioral component; and perceptual responses and verbal statements of belief are classified in the cognitive component. Past research had as its primary objective the demonstration of consistency between the components and generally found a high degree of correspondence between responses of the three components. Individuals in the Ostrom study showed a greater consistency of response to attitude scales measuring the same component than to scales measuring different components. ³²

The Influence of Attitudes on Recall

From the literature thus far reviewed, it can be seen that attitudes do have a demonstrated effect on behavior as well as recall (cognitive component) and both of these components are consistent.

A person's perception is partially dependent upon the attitudes held by that person. Consumers engage in a "progressive filtering" of the mass of advertising to which they are exposed. (The average consumer perceives only a small percentage (approximately 5%) of the advertisements

³² Thomas Ostrom, "The Relationship between the Affective, Behavioral, and Cognitive Components of Attitude,"

Journal of Experimental Social Psychology, 5 (January, 1969), p. 12-15.

to which he is exposed every day and a much smaller percentage than that produce overt behavior. 33 As discussed above, attitudes can account partially for any discrepancy between what a person is given to see and what that person actually reports seeing.

The contention is often made that people more readily learn and remember material which is congenial with their social attitudes than material that is not congenial. 34 It was mentioned above that the effect of attitudes on learning and memory is mediated by a process of selective retention. To the extent that attitudes induce individuals to pay special attention to congenial materials, those materials will be learned more fully than will uncongenial materials.

In a classic study by Levine and Murphy (1943) it was found that an individual learns and remembers best material which is congruent with his attitudes. The functional extension of the Levine-Murphy hypothesis has been proposed by Jones and Kohler (1958). That is that an individual learns and recalls congruent plausible and incongruent

³³ Raymond A. Bauer and Stephen A. Greyser, Advertising in America: The Consumer View (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1968), pp. 173-181.

³⁴ Muzafer Sherif and Carolyn Sherif, An Outline of Social Psychology (Rev. ed.; New York: Harper and Row, 1956), pp. 95-97.

³⁵ Jerome M. Levine and Gardner Murphy, "The Learning and Forgetting of Controversial Material," <u>Journal of Abnormal and Social Psychology</u>, 38 (October, 1943), p. 515-516.

implausible material better than congruent implausible and incongruent plausible material. 36

Jamieson (1970) has found that subjects learn plausible statements in favor of an attitude and implausible statements opposing them more readily than they recall implausible-favoring or plausible-opposing statements. It was also found in this study that subjects recall plausible statements in favor of an attitude and implausible statements opposing them more readily than they recall implausible-favoring or plausible-opposing statements. 37

Kitano (1970), in an investigation of the organization of social remembering and the transformation of memory traces through social attitudes, found that statements suited to the social attitude of the subject are recalled in a higher ratio and those unsuited are more apt to be forgotten. 38

Malpass (1969) concludes that the effect of attitude on learning and memory does occur under appropriate conditions

³⁶Edward E. Jones and Rika Kohler, "The Effect of Plausibility on the Learning of Controversial Statements," Journal of Abnormal and Social Psychology, 57 (November, 1958), p. 319-320.

³⁷ Bruce D. Jamieson, "Attitude, Plausibility, and the Learning and Recall of Controversial Material," <u>Journal of Psychology</u>, 76 (November, 1970), p. 173.

³⁸ Eimsa Kitano, "A Socio-Psychological Study on Memory Trace: The Effect of Attitude upon Memory and its Transformation," <u>Japanese Journal of Psychology</u>, 40 (February, 1970), p. 318.

and this effect is responsive to task variables. 39

The results of a study by Feather (1969) strongly support the prediction that under standardized conditions of free recall, subjects will report more arguments that are consistent with their attitudes than arguments that are inconsistent with their attitudes.

All of the above studies provide support for the theory that attitudes have a demonstrated effect on behavior, in general, and recall, specifically, across a variety of situations and circumstances. But this effect has not been shown to hold true across all situations and all circumstances.

Failures to Confirm the Influence of Attitudes on Recall

There have also been several studies done in which the influence of attitudes on recall was not confirmed. These studies are mentioned here, as well as a possible explanation of their results. These studies failing to confirm the influence of attitudes on recall are greatly outnumbered by those confirming this relationship.

³⁹Roy S. Malpass, "Effects of Attitudes on Learning and Memory: The Influence of Instruction-Induced Sets,"

Journal of Experimental Social Psychology, 5 (October, 1969),
p. 450-451.

Journal of Personality and Social Psychology, 12 (August, 1969), p. 317-318.

In a series of three experiments done by Greenwald and Sakumura (1967), attitudes were not found to affect the learning of relevant information. Brigham and Cook (1969) found no indications of the Levine-Murphy relationship between attitude and memory. 42

Experiments conducted by Waly and Cook (1966) failed to confirm the effects of attitude on learning or memory in an immediate recall situation.⁴³

Although these studies did fail to support the hypothesis that an individual learns and remembers best material which is congruent with his attitudes, one must consider the circumstances under which these results are manifest, as well as the conditions of the studies.

In an article by Burhans (1971) it is stated that many reviewers seem to agree that most, if not all, of the inconsistencies found in the studies of the relationship of attitudes and behavior can be explained by the different attitude objects used in the various studies as stimuli to

⁴¹A. G. Greenwald and J. S. Sakumura, "Attitude and Selective Learning: Where are the Phenomena of Yesteryear?", Journal of Personality and Social Psychology, 7 (December, 1967), p. 395-396.

⁴²John C. Brigham and Stuart W. Cook, "The Influence of Attitude on the Recall of Controversial Material: A Failure to Confirm," <u>Journal of Experimental Social Psychology</u>, 5 (April, 1969), p. 243.

⁴³ Patricia Waly and Stuart W. Cook, "Attitude as a Determinant of Learning and Memory: A Failure to Confirm," Journal of Personality and Social Psychology, 4 (September, 1966), p. 287-288.

elicit the attitude response, and/or the existence of situational factors in the behavioral situation that were unlike those in the testing situation.⁴⁴

It has been demonstrated that attitudes are an important intervening variable between the message and the response of the receiver. One of the behavioral responses to the message of the receiver is the recall of the message.

And attitudes have been shown to affect this recall.

It was also mentioned above that, in the studies of sex in advertising, sex has a disruptive effect on memory.

But this disruptive effect varies with the degree of sexiness of the ad

It has been suggested that congruity between the illustration used in the advertisement and the product advertised may contribute positively to recall.

All of these findings suggested the hypotheses of this investigation.

Hypotheses

This study was designed to test the following hypotheses:

 Those individuals with favorable attitudes toward sexy advertisements will recall more

⁴⁴David T. Burhans, "The Attitude-Behavior Discrepancy Problem: Revisited," Quarterly Journal of Speech, 57 (December, 1971), p. 420.

- sexy advertisements* than those individuals with unfavorable attitudes toward sexy advertisements.
- 2. There is a direct relationship between recall and the ratings of sexiness of sexy advertisements* for those individuals with favorable attitudes toward sexy advertisements. The recall of sexy advertisements will vary inversely with the ratings of sexiness of sexy advertisements* for those individuals with unfavorable attitudes toward sexy advertisements.
- Jef individuals rate sexy advertisements as appropriate to advertise a particular product, then their recall of sexy advertisements* for that particular product will be greater than the recall of those individuals rating sexy advertisements as inappropriate to advertise the same particular product.

^{*}Subset of 20 advertisements previously evaluated for sexiness by a similar S group (see Appendix B).

CHAPTER II

METHODS

Design

This investigation is an <u>ex post facto</u>, descriptive laboratory study. It was conducted in two phases. Of the 61 Ss in Phase 2, only the recall scores for sexy advertisements of those Ss defined as having favorable or unfavorable attitudes toward sexy advertisements and those rating sexy advertisements as appropriate or inappropriate to advertise liquor were compared.

Subjects

All of the subjects participating in this investigation were students in undergraduate advertising classes at Michigan State University. Two sets of Ss were used in the two phases of the investigation. In Phase 1, 109 Ss participated, 51 females and 58 males, ranging in age from 17 to 30 years. These Ss were asked to rate advertisements on a 1 to 5 scale as to how sexy they considered a set of 20 advertisements. Another 61 Ss, 18 females and 43 males, ranging in age from 18 to 28 years, participated in Phase 2. After completing a questionnaire and responding to a set of semantic differential scales, these Ss participated in a test of recall of the advertisements rated by Ss in Phase 1.

Materials

Twenty 35 mm. slides were made from full-page, full-color liquor advertisements found in the following magazines:

Playboy, Cosmopolitan, Saturday Review of the Arts, Mademoiselle, Time, Intellectual Digest, and Sports Illustrated.

These publications were selected because they were considered collectively to contain a wide range of liquor advertisements. Ten of these 20 advertisements were advertisements which emphasized only the product itself. The other 10 emphasized a woman, a man, or a man and a woman by a very dominant photograph, as well as the product (see Appendix A).

Procedures

Different procedures were performed in the two phases of this investigation. Phase 1 involved \underline{S} ratings of the sexiness of the 20 ads, and Phase 2 involved \underline{S} completion of the questionnaire and semantic differential exercise and a test of S recall of the ads.

Phase 1

A set of rating scales were responded to by <u>Ss</u> to rate on a 1 to 5 scale each of the 20 ads; 1 being "not sexy at all," 2 being "not very sexy," 3 being "neither sexy nor unsexy," 4 being "somewhat sexy," and 5 being "very sexy."

The first testing situation was designed as a pretest. It was used as a measurement operation to establish the variance in the perceptions of the set of advertisements.

One hundred and nine Ss, 51 females and 58 males, were shown

each of the 20 slides in random order, one at a time, for 15 seconds each and given 15 seconds in between each slide to rate each on a 1 to 5 scale of "not sexy at all" to "very sexy" (see Appendix B).

Instructions were as follows:

Papers are passed out.

"First of all, fill out the information requested at the top of the sheet I have just passed out: your sex and your age. It is only necessary to give your student number if you are in another advertising class, to avoid any duplication. I am going to show you 20 magazine advertisements on slides, one at a time. After seeing each slide, I want you to rate each one on the sheet I have just passed out on the 1 to 5 scale, 1 being 'not sexy at all,' and 5 being 'very sexy.' Put a check in the space which in your opinion corresponds most closely to each ad. I will show each slide for 15 seconds, and then will give you 15 seconds between each of the slides to rate each ad. Are there any questions?"

Slides are shown. Papers collected. Ss thanked.

Phase 2

A 3-page questionnaire was designed to ascertain the Ss' backgrounds and usage of beverages, including the product advertised in the ads shown, liquor (see Appendix C). Ss were also asked in the questionnaire to rate on a 1 to 5 scale how appropriate they considered sexy advertisements to be to advertise a number of products, including liquor (see Appendix C).

A 7-point semantic differential exercise was also used to ascertain the <u>Ss'</u> attitudes toward the concept "sexy advertisements" on 17 bipolar adjective pairs (see Appendix

D). Eleven of these adjective pairs were used as a measure of the $\underline{S}s$ ' attitudes toward sexy advertisements (see Appendix E).

Also used in Phase 2 was an answer sheet, with empty blanks numbered 1 through 20, on which Ss indicated whether or not they recalled seeing each of the ads shown.

In the second testing situation, approximately one week after Phase 1, 61 Ss, 18 females and 43 males, were given a 3-page questionnaire to complete on their backgrounds and usage of beverages, including liquor. Included in the questionnaire was a 1 to 5 scale of appropriateness, from "not appropriate to all" to "very appropriate," of the use of sexy advertisements to advertise each of the beverages mentioned in the questionnaire. The same Ss were also given a 7-point semantic differential exercise, using 17 bipolar adjective pairs, in order to ascertain their attitudes toward the concept "sexy advertisements." The Ss were then shown, in random order, the 20 advertisements on slides which had been rated by the Ss in Phase 1. The slides were shown one at a time for 8 seconds each. A 30-minute movie was then shown to the Ss. The Ss were then shown the same slides again in a different random order for 8 seconds each, one at a time. The Ss were given 8 seconds between each slide to check on an answer sheet if they remembered having seen each slide in the previous set shown before the movie.

Instructions were as follows:

While papers are being passed out:

"The advertising department is conducting a study to ascertain what products people use and what they read. First of all, I would like for you to fill out the information requested at the top of the first page being passed out: your sex and age. Please keep all the sheets stapled together. This exercise will be done in two parts. I want you to fill out the first 4 of the 5 pages passed out now. Later on, toward the end of the class period, you will be asked to complete the exercise."

After papers are passed out:

"The first 3 pages are a questionnaire. On the third page of the questionnaire, you are asked to rate the appropriateness of sexy advertisements to advertise certain beverages on a 1 to 5 scale, 1 being 'not appropriate to all' and 5 being 'very appropriate.'

The fourth page is a semantic differential, another rating device. Only here you are asked to rate the phrase 'sexy advertisements' on a 1 to 7 scale on 17 bipolar adjective pairs. Of the 7 possible blanks between each of these bipolar adjective pairs, check the blank between 1 and 7 which you feel most closely coincides with your meaning for 'sexy advertisements.' The first scale, hot and cold, is an example. If your meaning for 'sexy advertisements' coincides with 'very hot,' you would put a check in the first blank between hot and cold. And if it were 'very cold,' you would put a check in the seventh blank. If your meaning is such that 'sexy advertisements' is neutral on this adjective pair, you would put a check in the fourth blank. And so on with the remaining 17 adjective pairs. Any questions?

The last sheet will be used in the last part of the exercise, later in the class.

Go ahead and start."

The questionnaire and semantic differentials are completed.

"I am not going to show you 20 advertisements on slides, one at a time. Later in the class period you will be asked to evaluate them."

Slides are shown. Movie is shown.

After the movie:

"I am now going to show you a set of 20 advertisements on slides, one at a time. On the last sheet, you will see that there are empty blanks numbered 1 through 20. If you remember seeing any of the advertisements on the set I will be showing in the previous set shown to you earlier, put a check in the appropriate space next to the number of the ad. If you do not remember having seen the ad, leave the appropriate space blank. I will call out the number of each ad as it is shown. The ads will be shown for 8 seconds each and you will be allowed 8 seconds between each slide, which is enough time for you to mark your answer sheet. Any questions?"

Slides are shown. Papers collected.

"The results of this study will be available later to anyone who is interested. Thank you for your cooperation."

Variables

Control variables

In this study, several control variables were measured. The <u>S</u>s' ratings of the ads on a 1 to 5 scale from "not sexy at all" to "very sexy" was done to identify the average rating of sexiness for each of the ads. The questionnaire was intended to identify the <u>S</u>s' backgrounds and usage of liquor, the product advertised. Another control variable is defined as the perceived sexiness of the product which was measured by the ratings on the 1 to 5 scale ranging from "very inappropriate" to "very appropriate" the use of sexy advertisements to advertise the products in the advertisements shown, liquor. The semantic differential

technique was used to measure the $\underline{S}s'$ attitudes toward sexy advertisements, another control variable. This was done to permit the separation of the $\underline{S}s$ into 2 groups to examine differences in recall levels.

Dependent variables

The dependent variable in this investigation was the number of sexy advertisements (6 out of the total 20) recalled by the Ss (see Appendix B).

CHAPTER III

RESULTS

Operational Definitions

A factor analysis was computed using semantic differential scores from the 17 bipolar adjective pairs describing sexy advertisements. Eleven of the 17 bipolar adjective pairs were found to be loaded on Factor 1, the evaluative dimension, with values of .5012 and above (see Appendix E). Those Ss with an average score of 1.0 to 2.5 for these 11 adjective pairs were considered to have favorable attitudes toward the use of sexy advertisements. Those Ss with an average score of 5.5 to 7.0 for these 11 adjective pairs were considered to have unfavorable attitudes toward the use of sexy advertisements.

Those advertisements given average ratings of 3.20 and above on the 5-point rating scale were considered to be sexy advertisements. There were six such sexy advertisements (see Appendix B).

On the 5-point scale of appropriateness of sexy advertisements to advertise certain beverages, those <u>Ss</u> rating the appropriateness of sexy advertisements to advertise liquor 4 or 5 were considered to rate sexy advertisements appropriate to advertise liquor. Those <u>Ss</u> rating the appropriateness of sexy advertisements to advertise liquor

1 or 2 were considered to rate sexy advertisements inappropriate to advertise liquor (see Appendix C).

Hypothesis 1

Nineteen of the total 61 <u>Ss</u> were found to have favorable attitudes toward the use of sexy advertisements (see Table 1).

TABLE 1

NUMBER OF SEXY ADVERTISEMENTS RECALLED BY SUBJECTS WITH FAVORABLE ATTITUDES TOWARD SEXY ADVERTISEMENTS

 ber of Recalled	Number of Subjects
6	3 0 0 0

Four <u>Ss</u> were found to have unfavorable attitudes toward the use of sexy advertisements (see Table 2).

TABLE 2

NUMBER OF SEXY ADVERTISEMENTS RECALLED BY SUBJECTS WITH UNFAVORABLE ATTITUDES TOWARD SEXY ADVERTISEMENTS

 ber of Recalled	Number of Subjects
6 5 4 3 2	0 0
1	

The number of sexy ads recalled by each subject was tabulated. A <u>t</u>-test for unequal <u>n</u>'s was computed to compare the
means of the number of sexy ads recalled by these two groups.

In this case, the value of <u>t</u> was found to be .855 with <u>df</u> =

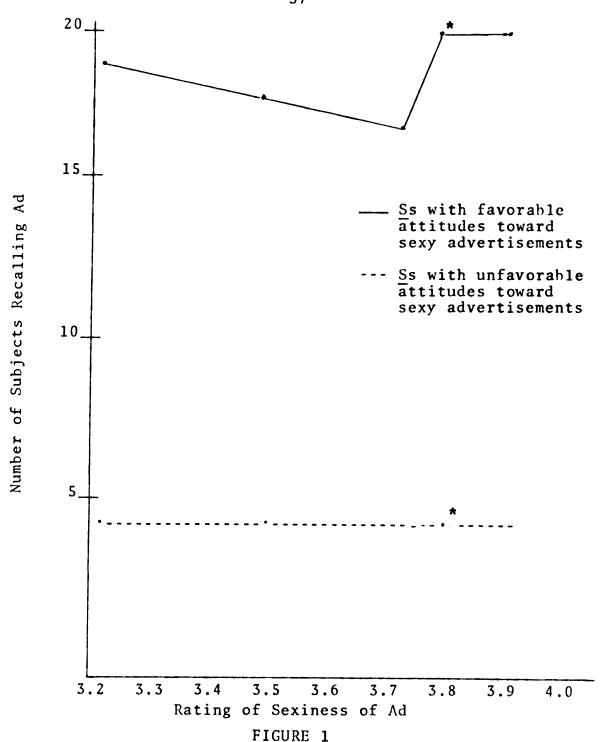
21. Hypothesis 1 was not supported, the <u>t</u>-test was not significant at the .05 level; <u>S</u>s with favorable attitudes
toward sexy advertisements did not recall more sexy advertisements than <u>S</u>s with unfavorable attitudes toward sexy
advertisements.

Hypothesis 2

The graph resulting from a plot of the number of subjects recalling ads and the rating of sexiness of the ads does not illustrate a direct relationship between recall and ratings of sexiness of ads for those Ss with favorable attitudes toward sexy advertisements (see Figure 1).

In the graph resulting from a plot of the number of subjects recalling ads and the rating of the sexiness of the ads, an inverse relationship between recall and ratings of sexiness of ads for those Ss with unfavorable attitudes toward sexy advertisements is not shown (see Figure 1).

Therefore, Hypothesis 2 is not supported by the graphs plotted in Figure 1.



NUMBER OF SUBJECTS WITH FAVORABLE AND UNFAVORABLE ATTITUDES TOWARD SEXY ADVERTISEMENTS RECALLING EACH RATED SEXY ADVERTISEMENT

^{*}There are two advertisements with a rating of 3.78, but both were recalled by all 19 Ss.with favorable attitudes and all 4 Ss with unfavorable attitudes.

Hypothesis 3

Fifty of the total 61 Ss rated sexy advertisements as appropriate to advertise liquor (see Table 3).

TABLE 3

NUMBER OF SEXY ADVERTISEMENTS RECALLED BY SUBJECTS RATING SEXY ADVERTISEMENTS AS APPROPRIATE TO ADVERTISE LIQUOR

Number of Sexy Ads Recalled	Number of Subjects
6	
4	
3	1
1	

Eight <u>Ss</u> rated sexy advertisements as inappropriate to advertise liquor (see Table 4).

TABLE 4

NUMBER OF SEXY ADVERTISEMENTS RECALLED BY SUBJECTS RATING SEXY ADVERTISEMENTS AS INAPPROPRIATE TO ADVERTISE LIQUOR

Number of Sexy Ads Recalled	Nt	umber	of Subjects
5 4 3 2		• • • •	0 0 0 0 0

The number of sexy ads recalled by each subject was tabulated. A <u>t</u>-test for unequal <u>n</u>'s was computed to compare the means of the number of sexy ads recalled by these two groups. In this case, the value of <u>t</u> was found to be 1.40

with \underline{df} = 56. Hypothesis 3 was not supported, the \underline{t} -test was not significant at the .05 level; \underline{S} s rating sexy advertisements as appropriate to advertise liquor did not recall more sexy advertisements than \underline{S} s rating sexy advertisements as inappropriate to advertise liquor.

The <u>t</u>-test was significant, however, at the .10 level, in the direction indicating some support for the hypothesis opposing the one set forth, namely: individuals rating sexy advertisements as inappropriate to advertise a particular product recall more sexy advertisements for that product than those individuals rating sexy advertisements as appropriate to advertise a particular product.

Additional Results

Some additional results of this investigation were also found.

Of those 19 Ss who were found to have favorable attitudes toward sexy advertisements, 4 were female and 15 were male. Of those 4 Ss who were found to have unfavorable attitudes toward sexy advertisements, 2 were female and 2 were male.

Of those 50 Ss rating sexy advertisements as appropriate to advertise liquor, 13 were female and 37 were male.

Of those 8 Ss rating sexy advertisements as inappropriate to advertise liquor, 5 were female and 3 were male.

Of the 19 $\underline{S}s$ with favorable attitudes toward sexy advertisements, 18 also rated sexy advertisements as

appropriate to advertise liquor. And of the 4 <u>Ss</u> with unfavorable attitudes toward sexy advertisements, 3 also rated sexy advertisements as inappropriate to advertise liquor.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

The results of this investigation would indicate that:

- 1. Individuals with favorable attitudes toward the use of sexy advertisements do not recall more sexy advertisements than individuals with unfavorable attitudes toward the use of sexy advertisements.
- 2. There is not a direct relationship between recall and ratings of sexiness of sexy ads for individuals with favorable attitudes toward sexy advertisements, nor is there an inverse relationship between recall and ratings of sexiness of sexy ads for individuals with unfavorable attitudes toward sexy advertisements.
- 3. Individuals considering sexy advertisements as appropriate to advertise a particular product do not recall more sexy advertisements for that product than do individuals considering sexy advertisements as inappropriate to advertise a particular product. In addition, it was found

that there was some support for the opposing hypothesis that individuals considering sexy advertisements as inappropriate to advertise a particular product recall more sexy advertisements than do those individuals considering sexy advertisements as appropriate to advertise a particular product.

Discussion

Several difficulties were encountered in this investigation which may serve as possible explanations for the unexpected results.

Initially, none of the advertisements used (see Appendix B) obtained a rating of sexiness higher than a 3.92 in the 1 to 5 scale used. Therefore, none of the ads used were rated as being "very sexy" and even the most sexy ad used was rated only "somewhat sexy." The absence of ads rated "very sexy" could have affected the results. Perhaps attitudes would have performed as a much more potent intervening variable between exposure and recall had the advertisements had higher ratings. Also, there were several ads shown which had very low ratings; 10 of the ads had ratings of lower than 2.00.

The recall of these 10 non-sexy ads by those individuals with favorable and unfavorable attitudes toward sexy advertisements and also by those individuals rating sexy advertisements as appropriate and inappropriate to advertise

a particular product was checked. A \underline{t} -test for unequal \underline{n} 's was computed to compare the means of the number of non-sexy ads recalled by those individuals with favorable and unfavorable attitudes toward sexy advertisements. In this case, the value of \underline{t} was found to be 1.39 with \underline{df} = 21. The \underline{t} -test was significant at the .10 level, indicating some support for the hypothesis that individuals with unfavorable attitudes toward sexy advertisements remember more non-sexy ads than those individuals with favorable attitudes toward sexy advertisements.

Another \underline{t} -test for unequal \underline{n} 's was computed to compare the means of the number of non-sexy ads recalled by those individuals rating sexy ads as appropriate and inappropriate to advertise a particular product. In this case, the value of \underline{t} was found to be 1.35 with \underline{df} = 56. The \underline{t} -test was also significant at the .10 level, indicating some support for the hypothesis that individuals rating sexy advertisements as inappropriate to advertise a particular product recall more non-sexy ads than those individuals rating sexy ads as appropriate to advertise a particular product.

One interesting point that can be noted from looking at the ads and their respective ratings (see Appendices A and B) is the fact that all of the 10 ads in which a woman, a man, or a man and a woman are emphasized by a very dominant photograph are rated higher than the remaining 10 ads, without such photographs. This would suggest that, in general, advertisements using any type of photographs of people are

considered to elicit more sexual associations than advertisements without such photographs, and therefore those ads using photographs of people will be rated higher in terms of sexiness than will those ads without such photographs.

Probably the most obvious difficulty encountered in this investigation is the large discrepancy between the number of individuals with unfavorable attitudes toward sexy advertisements and the number of individuals with favorable attitudes toward sexy advertisements. As can be seen from the results, many more individuals have favorable attitudes than unfavorable attitudes toward sexy advertisements (see Tables 1 and 2). A similar discrepancy exists between the number of individuals rating sexy advertisements as inappropriate to advertise liquor and those individuals rating sexy advertisements as appropriate to advertise liquor. Many more individuals rated sexy advertisements as appropriate than rated sexy advertisements inappropriate to advertise liquor (see Tables 3 and 4).

Perhaps if a larger sample could have been tested, these discrepancies would have been reduced somewhat. This should prove successful in reducing the discrepancies. It seems as though many of the discrepancies encountered in this study were a result of the size of the sample used and increasing the size should alleviate some of these discrepancies, particularly in increasing the number of Ss in each of the groups, thus alleviating the differences between them.

Perhaps, too, if another product had been used, other than liquor, the results would have taken a different direction. It is difficult to predict the outcome of an investigation similar to this one, but using a product other than liquor.

The measure used to determine the appropriateness of sex to advertise a particular product is basically straightforward and fairly reliable and valid. Sometimes, though, such a direct approach produces responses that the <u>S</u> thinks he should give, not necessarily his true response. This did not appear to be a problem, though, in the present investigation. The measure used to determine attitudes toward sexy advertisements was not as straightforward, but was soundly based on a measure of attitude. And, as indicated on pages 39 and 40, these two measures were fairly consistent with one another.

It is also indicated on page 39 that a great deal more females, proportionately, than males have unfavorable attitudes toward sexy advertisements, as well as rating sexy advertisements as inappropriate to advertise liquor. It should also be noted that the total number of female subjects in the investigation was much smaller than the number of male subjects. Therefore, if the size of the sample was not only increased, but also more proportionately

⁴⁵Charles E. Osgood, George J. Suci, and Percy II. Tannenbaum, The Measurement of Meaning (Urbana, Illinois: University of Illinois Press, 1957), pp. 192-193.

distributed as far as the number of males and females participating, some weakness of the study could be offset, offering a better test of the hypotheses.

Of course, the possibility must not be ruled out that perhaps many more individuals do have favorable than unfavorable attitudes toward sexy advertisements and many more individuals consider sexy advertisements appropriate than inappropriate to advertise liquor. It must also be remembered that the sample used in this investigation, consisting of college students, was younger and in a more liberal atmosphere than the more general public for whom the ads were intended. These facts certainly could influence the attitudes toward sexy advertisements of the subjects in this investigation. This could also be an explanation of the somewhat low ratings of the sexiness of the ads.

The sample used may have been quite different from the intended audience of the ads, thus affecting the effectiveness of the ads and the results of the investigation.

Also, some of the Ss may have been readers of the magazines from which the ads were taken, and this would have affected the results, probably increasing recall of those ads seen out of the test situation.

A possible reason for the large number of advertisements recalled, including the sexy advertisements, is that although a 30-minute movie was shown between exposure and recall, this might not have provided an adequate situation

for attitudes to have significantly intervened in order to affect memory or recall.

In general, a new design for this investigation to test the same hypotheses, but to overcome the weakness of the study, should include:

- 1. A larger sample
- 2. An approximately equal number of males and females
- 3. Comparison of the sample and the intended audience of the ads
- 4. A check on the readership of magazines from which the ads are taken
- 5. Advertisements with higher ratings of sexiness

Possible Explanations of Results

It was found in the Morrison and Sherman study (1972)⁴⁶ "moderate" degrees of sex in ads results in maximum product memory. It could very well be that those ads used in the present investigation and rated as the most sexy are comparable to those ads considered to have a "moderate" degree of sex in the Morrison and Sherman study. This would explain the large number of advertisements recalled.

⁴⁶ Federal Trade Commission, Modern Advertising Practices, Bruce John Morrison, pp. 6-10.

As discussed previously, Morrison and Sherman also have found that sex in advertising has a disruptive effect on memory, measured on several scales. Perhaps this disruptive effect may be stronger than attitudes as an intervening variable between exposure and recall. This disruptive effect may occur regardless of an individual's attitude toward sexy advertisements or how appropriate he considers sexy advertisements to advertise a particular product. From the present investigation, it would seem as though this disruption of memory takes place in spite of attitudes, for it would seem as though individuals with favorable attitudes toward sexy advertisements would be less likely to have their memories disrupted by sexy advertisements. And this was shown not to be the case. It might even be postulated from the results of this study that sexy advertisements and unfavorable attitudes toward sexy advertisements both have disruptive effects on the recall of sexy advertisements. Therefore, the recall of individuals with favorable attitudes toward sexy advertisements would be influenced by the disruptive effect of the sexy advertisements which would cause them to recall fewer sexy ads. Furthermore, if an individual has unfavorable attitudes toward sexy advertisements, his recall might well be affected much less by the disruptive effect of the sexy advertisements than a person with favorable attitudes toward sexy advertisements, whose recall will be affected more by the disruptive effect of the sexy advertisements. But the recall of an individual with unfavorable attitudes

toward sexy advertisements would be influenced by the disruptive effects of his unfavorable attitudes. This would explain the lack of any significant differences in recall of sexy ads for those individuals with favorable and unfavorable attitudes toward sexy advertisements found in this investigation.

This explanation could also be utilized to explain the increased recall of those individuals considering sexy advertisements to be inappropriate to advertise a particular product. Considering sexy advertisements as inappropriate to advertise a particular product could also have a disruptive effect on the recall of sexy advertisements for that product, but not as strong as the disruptive effect of sexy advertisements. Also, those individuals considering sexy advertisements as inappropriate to advertise a particular product might well be affected less by the stronger disruptive effect of the sexy advertisements and more affected by the disruptive effects of considering sexy advertisements inappropriate to advertise a particular product than a person considering sexy advertisements as appropriate to advertise a particular product. Therefore, the individual considering sexy advertisements as appropriate to advertise a particular product would be more influenced by the stronger disruptive effect on recall of the sexy ads. would explain the greater recall of individuals considering sexy advertisements as inappropriate to advertise a

particular product than those individuals considering sexy advertisements as appropriate to advertise a particular product.

Implications

The results of this investigation generate many implications for the many advertisers using or planning to use sexy, as well as non-sexy, advertisements to advertise their products.

Initially, knowing the audience for whom the advertisement is intended is of vital importance. It should be known not only who they are, but also whether their attitudes toward sexy advertisements are favorable or unfavor-It has been indicated that whether an individual has a favorable or unfavorable attitude toward sexy advertisements will be an important determining factor in whether or not the non-sexy advertisement is recalled. Although previous studies have indicated that individuals with favorable attitudes toward sexy advertisements will recall more sexy advertisements than those with unfavorable attitudes, the present investigation indicates that individuals with favorable attitudes toward sexy advertisements will not recall more sexy advertisements. But this investigation does indicate that those individuals with unfavorable attitudes toward sexy advertisements will recall more non-sexy ads than those individuals with favorable attitudes toward sexy advertisements.

The degree of sexiness of the advertisement, particularly as perceived by the intended audience, should be determined. Often times the creator of an ad or an investigator using an ad will perceive the sexiness of that ad differently than will those for whom the ad is intended. As has been reported, a moderate degree of sexiness in ads may increase product memory, but a high degree of sexiness in ads has a disruptive effect.

The product being advertised should also be considered. If the product itself is not perceived by the intended audience to be sex associated, then a sexy advertisement to advertise such a product could be considered inappropriate. Congruity between the ad and the product has been shown to be another important factor to recall. 47 Although previous studies have indicated that those individuals considering sexy advertisements as appropriate to advertise a particular product will recall more sexy advertisements for that product than individuals considering sexy advertisements as inappropriate, the present investigation indicates that individuals considering sexy advertisements as inappropriate to advertise a particular product will recall more sexy advertisements for that product. This investigation also indicates that those individuals considering sexy advertisements as inappropriate to advertise a particular product

⁴⁷Steadman, "How Sexy Illustrations Affect Brand Recall," Journal of Advertising Research, p. 18-19.

will recall more non-sexy ads than those individuals considering sexy advertisements as appropriate to advertise a particular product.

Sexy advertisements can be used quite successfully for recall goals in advertising a wide array of products if the information concerning the aspects of the ad and its intended audience which have been discussed are taken into consideration in preparing a sexy advertisement. Although many successful sexy advertisements have been prepared without such consideration, if they are taken into consideration, the chances of the ad being successful can be greatly increased.

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APPENDIX A

The Advertisements

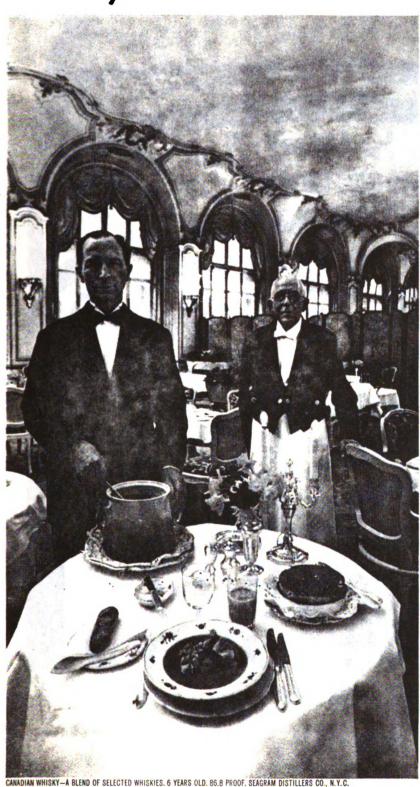
PLATE I

A Bacardi party to go.



PLATE II

Only The Ritz is The Ritz. Only V.O. is V.O.



"There is only one Ritz..." Ernest Hemingway once remarked, "And that is the Paris Ritz." And so indeed, the Paris Ritz has reigned, since 1898, as the Queen Mother of all the world's great hotels.

Through its entrance on the magnificent

Place Vendôme, have passed Kings and Queens, courtiers and diplomats, artists and movie stars—they have all come, again and again, seeking the same simple elixirs. Serenity. Privacy. Ambiance. And a standard of



service unequalled anywhere on earth.

Beginning with Escoffier, the Ritz has employed only five chefs de cuisine in more than seventy years. Its chief sommelier has watched over his wine cellars for three generations. Waiters, trained in the art of table watching, appear magically to refill wine glasses or light cigars with foot-long matches.

And through the years, only The Ritz is The Ritz. A quiet, timeless island of Old World grace and civility. A one-of-a-kind creation.

Like The Ritz, Seagram's V.O. Canadian is also a one-of-a-kind creation; another quiet reminder of Old World grace and civility. It too stands alone, since 1857, as a whisky uncompromising in quality, with a tradition of craftsmanship that has made it The First Canadian in smoothness. The First Canadian in lightness. And The First Canadian in popularity throughout the world.

Only The Ritz is The Ritz. Only V.O. is V.O. All the others come after.

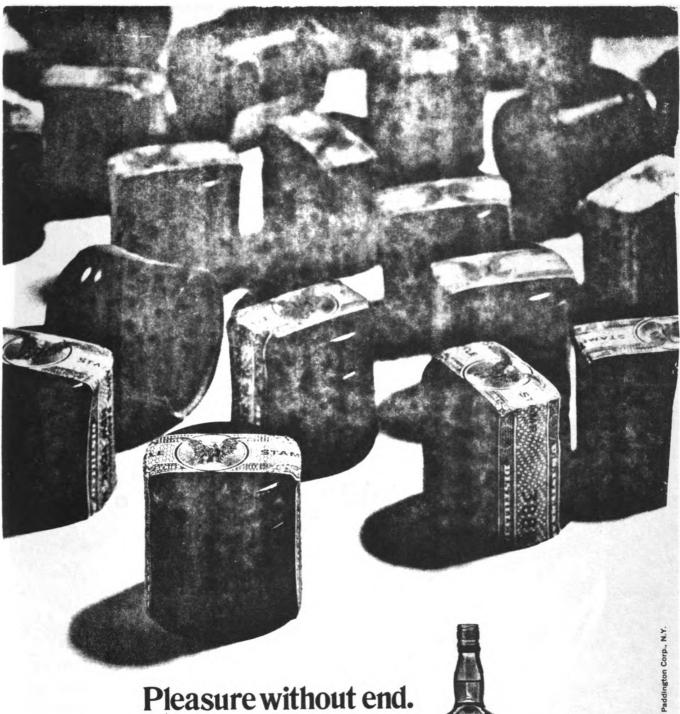
Seagram's The First Canadian.

PLATE III

"I gave up my search for a clean, wholesome movie, but...



I won't give up the ship!"



Whether the sun shines tomorrow, or it rains... Whether you finally get delivery on your new car, or have to wait another week...

Whether alone, or in the company of friends... We offer one very satisfying pleasure you can count on. J&B rare scotch. To celebrate or warm the uncertainties of life.



5 Proof Blended Scotch Whisky @ 1973 Paddingto



Ronrico. The rum with the bright taste.

PLATE VI

If your Dad's the best, our Dad's the best.



PLATE VIII



Here's a basic home tool kit. It's designed especially for do-it-yourself jobs on your taste buds.

What you see is all you need. A bottle of Bacardi light rum and orange juice for the Screwdriver. Or grapefruit juice for the Monkey Wrench.

One sip of either will tell you that Bacardi has a subtle flavor that doesn't get lost in juice.

So get to work and enjoy yourself.

BACARDI, rum. The mixable one.

PLATE VIII

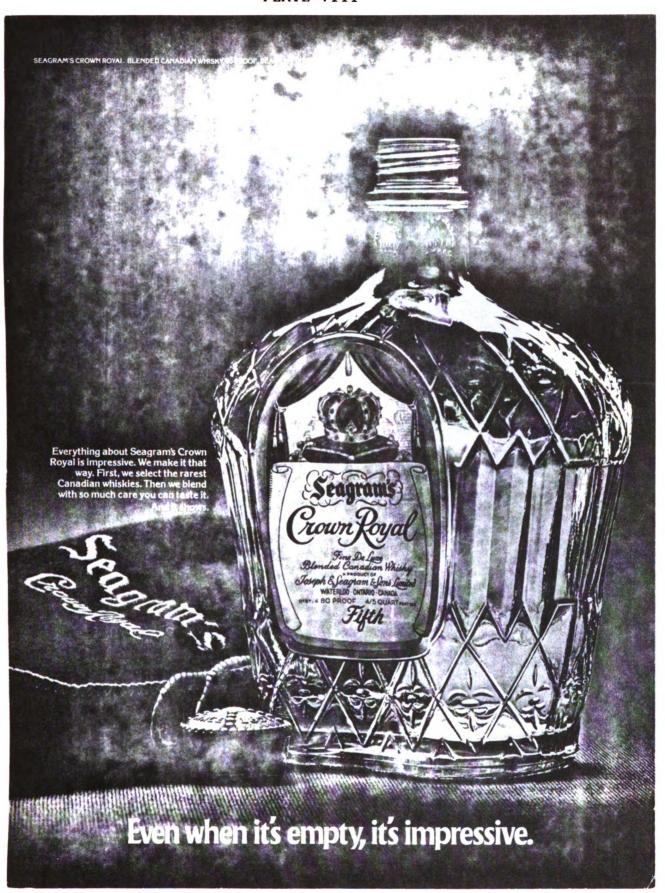


PLATE IX



"Flying a kite off a windswept glacier in New Zealand is no game for kids."





BY APPOINTMENT TO HER MALESTY QUEN ELIZABETH II SUPPLIES OF CANADIAN CLUB" WHISKY HIRAM WALKER & SUNS LIMITED WALKERVILLE CANADA

With 18 feet of sail as my wings— I, a rather jittery Jeff Jobe from Seattle—was ready to conquer the sky. Altitude: 8000 feet on New Zealand's

Glacier Dome. Michele helped me into my kite harness. And soon I was racing toward the edge of the ice fall. I had descended 3000 feet in a perfect glide, when an icy blast rocked the kite. And suddenly, I was fighting for my life with a deadly downdraft.



'With some wild maneuvering and miraculous luck, I escaped into smooth air. As I circled, I grimly remembered the first rule of kiting: never fly higher than you'd like to fall.



"That evening, at The Hermitage Hotel, we toasted our adventure with Canadian Club." It seems wherever you go, C.C. welcomes you. More people appreciate its gentle manners and the pleasing way it behaves in mixed company. Canadian Club—
"The Best In The House" in 87 lands.

PLATE XI

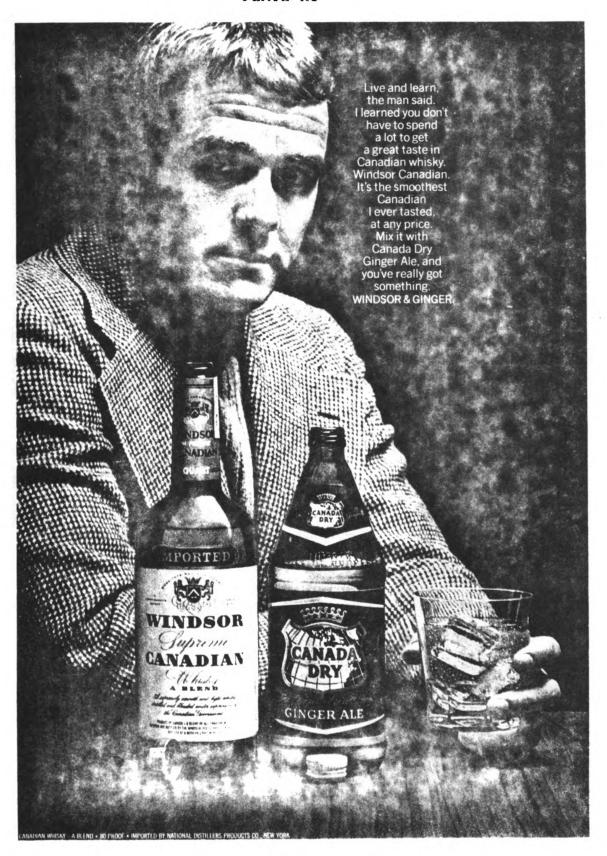


PLATE XII



When you know you've gotten the most out of yourself, that's when you feel your best. Right?

And that's when you deserve

And that's when you deserve
the one drink that's always at its best.
Seagram's 7 Crown and 7 Up.
Get it nice and tall
over plenty of ice. Then
settle into it.
Seven & Seven.
It belongs to moments like this.



Seagram Distillers Co., N.Y.C. American Whiskey – A Blend. 86 Proof.
"Seven-Up" and "7 Up" are registered trademarks identifying the product of the Seven-Up Company.

PLATE XIII



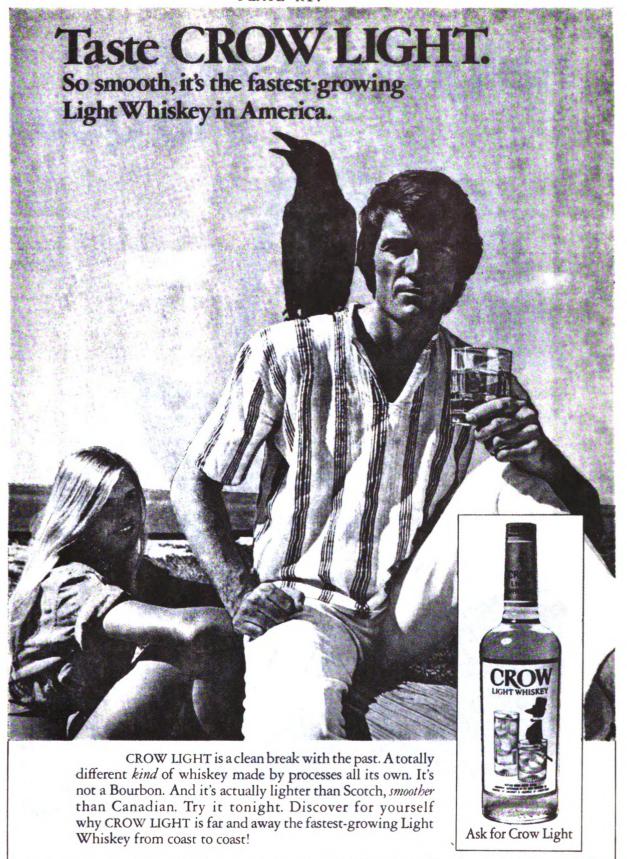


PLATE XV

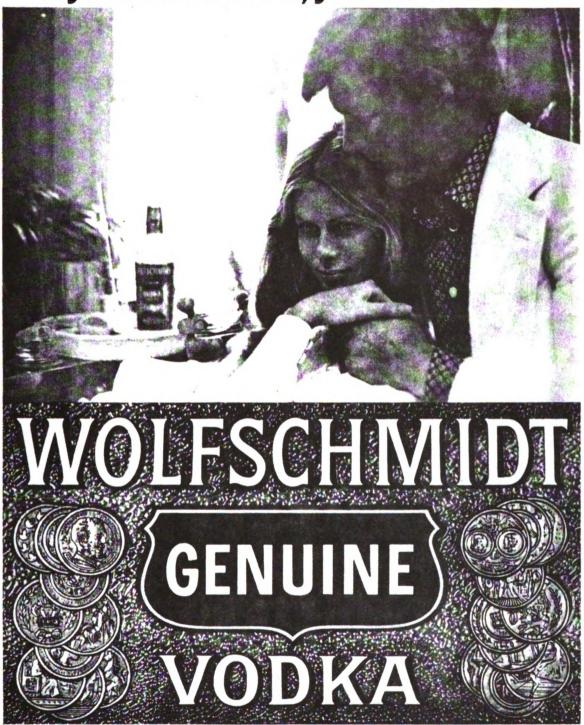
How the English keep dry.



76 PLATE XVI



If you don't have it, you can't fake it.



What's Genuine? Genuine is the vodka that's won 33 medals for excellence. Genuine is the way it's distilled: meticulously, in 7 stages. Genuine is the delicious drink you make with it. Wolfschmidt Genuine Vodka.

VODKA • DISTILLED FROM GRAIN • 80 AND 100 PROOF • BY WOLFSCHMIDT • LAWRENCEBURG, INDIANA

PLATE XVIII Make yourself a Red Baron. Orange juice, grenadine and lime.
Now get it all together
with the perfect martini gin,
Seagram's Extra Dry. Seagram's Extra Dry Gin = Seagram's Extra Dry.

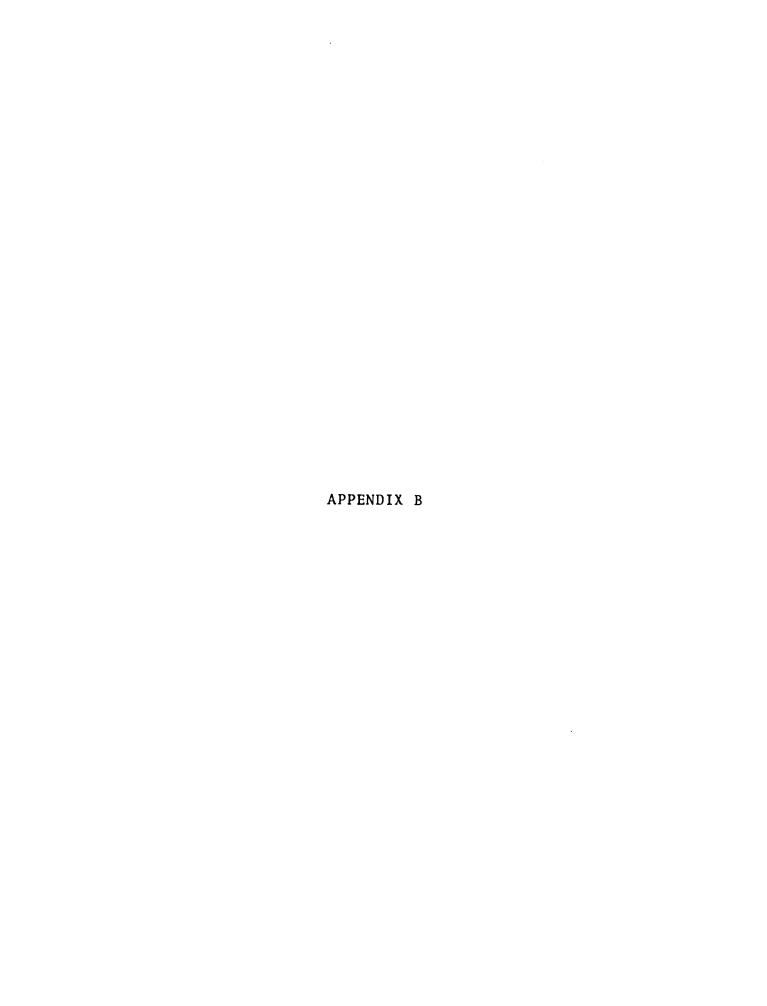
The Perfect Martini Gin. Perfect all ways.

Red Baron recipe: 1½ oz. Orange Juice, ½ Lime, Dash of Grenadine (or to taste), 1½ oz. Seagram's Gin., Seagram Distillers Company, New York, N.Y. 90 Proof. Distilled Dry Gin. Distilled from American Grain.



PLATE XX





APPENDIX B

Phase 1 Results

TABLE 5

RATINGS OF THE ADVERTISEMENTS

Advertisement		Rating
PLATE	I	1.47
PLATE	II	1.52
PLATE	III	1.53
PLATE	IV	1.62
PLATE	V	1.63
PLATE	VI	1.64
PLATE	VII	1.67
PLATE	VIII	1.71
PLATE	IX	1.73
PLATE	χ	1.91
PLATE	XI	2.07
PLATE	XII	2.82
PLATE	XIII	2.97
PLATE	XIV	3.05
PLATE	XV	3.21*
PLATE	XVI	3.48*
PLATE	XVII	3.72*
PLATE	XVIII	3.78*
PLATE	XIX	3.78*
PLATE	XX	3.92*

^{*} These advertisements were defined as "sexy" advertisements.



APPENDIX C

The Questionnaire

Sex	NAMES OF THE OWNER.								
Age									
1.	Put a check after of your parents usual:	each of th ly had/hav	e following be	everages which					
	milk	-	tea	-					
	soda pop		liquor	•					
	vegetable/fruit jui	ce	beer	-					
	coffee		wine	4 -49-49-49-49-49-49-49-49-49-49-49-49-49-					
	other (speci	ify)							
2.	List those beverages checked in the first question which you usually used while at home. What are their brand names?								
	beverages		brand nam	ne					
		The state of the s							
									

Which of the bevera	ages which What are	h you their	have in your home brand names?
beverages			brand name
List your reasons a Question 4.	for using	the l	beverages listed in
beverage			reason for using

6. How appropriate do you think sexy advertisements would be to advertise each of the following beverages:

	Not appro- priate at all	Not very appro- priate	Neither appro-priate nor inappropriate	Somewhat appro-priate	Very appro- priate
	1	2	3	4	5
soda pop				-	
vegetable/ fruit juice		-		-	
beer					
wine	****			44-1	•
liquor				-	
coffee		**************************************	•		
tea					-
mi1k					
other (specify)			-	and a second	
	1	2	3	4	5



APPENDIX D

The Semantic Differential

The 17 bipolar adjective pairs used in the semantic differential were obtained from 28 Ss, students in an undergraduate advertising class at Michigan State University, when asked to free associate for the term "sexy"* for a period of one minute.

The first five words, terms, or phrases were used from each set of responses. It was felt that these were the most immediate responses, and, therefore, the most salient and relevant to the Ss.

This resulted in 93 different words, terms, or phrases. Several of the words were used as written by the subjects. Those words with similar meanings were grouped together. Such groups of words were then condensed into

^{*}The word "sexy" was used here instead of the word "sex" which has been used most often by others to refer to "sex in advertising" in similar investigations. So were initially asked to free associate for the word "sex" and the resulting words, terms, and phrases were found to be unsuitable for the purpose of this investigation. If these words, terms, and phrases are the same that previous authors had in mind when speaking of "sex in advertising," then I contend that there is very little "sex in advertising," at least not public advertising!

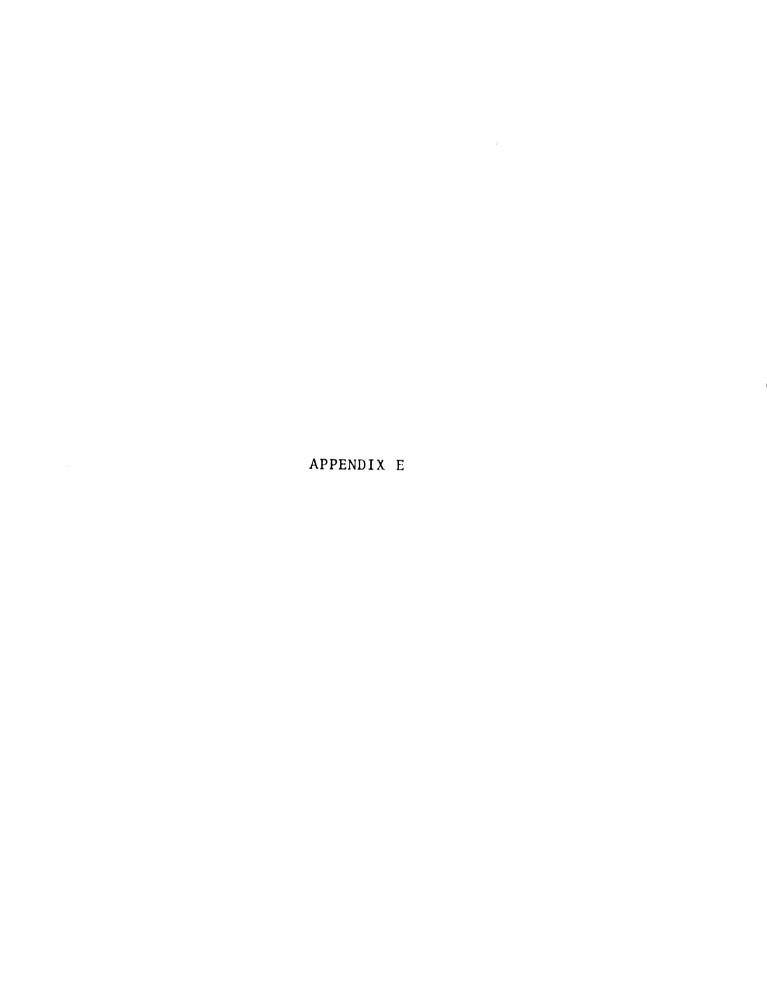
Apparently the connotations of the words "sex" and "sexy" are more or less colloquial, or at least individual, and these words should not be used interchangeably.

one word, if possible.

A thesaurus and a dictionary were consulted in finding the bipolar or opposite pair of the word used, when necessary.

The resulting bipolar adjective pairs were:

	1	2	3	4	5	6	7	
male								female
attractive								unattractive
strong			-					weak
inhibited					•			uninhibited
beautiful								ugly
sharp								du11
hard								soft
revealing								concealing
stimulating								boring
passionate								frigid
desirable								undesirable
shapely								unshape1y
aggressive								passive
good								bad
aware								unaware
pleasant								unpleasant
fast				•				slow
	1	2	3	4	5	6	7	



$\label{eq:APPENDIXE} \begin{tabular}{ll} APPENDIX & E \\ \\ \begin{tabular}{ll} The & Factor & Analysis \\ \end{tabular}$

TABLE 6
FACTOR LOADINGS OF THE SEMANTIC DIFFERENTIAL SCALES

Adjective Pair	Factor 1	Factor 2	Factor 3
male/female	.0674	4581*	0237
attractive/unattractive	8407*	.0204	.0228
strong/weak	6904*	1050	.0846
inhibited/uninhibited	0768	6 610*	.3325
beautiful/ugly	8397*	.2388	.0356
sharp/dull	7292*	.2260	0822
hand/soft	0014	6199*	1132
revealing/concealing	4182	.5025*	.0233
stimulating/boring	8647*	.1901	0115
passionate/frigid	4614	.4881*	.3770
desirable/undesirable	8568*	.2060	.0347
shapely/unshapely	8026*	.1680	1670
aggressive/passive	5012*	0285	1903
good/bad	8178*	.0812	.1067
aware/unaware	6287*	.0609	4814
pleasant/unpleasant	8794*	.0608	0425
fast/slow	0523	0393	8638*

^{*}The 11 adjective pairs whose factor loadings for Factor 1 are followed by an asterisk are the 11 adjective pairs used to define Ss' attitudes toward sexy advertisements.

