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I am submitting herewith a dissertation written by Brenda Sternquist Witter entitled "Deceptive Advertising and Advertising Substantiation: An Attitude Change Approach." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Home Economics.

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DECEPTIVE ADVERTISING AND ADVERTISING SUBSTANTIATION: AN ATTITUDE CHANGE APPROACH

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Brenda Sternquist Witter

August 1978

136826

ACKNOWLEDGMENTS

The writer is grateful for assistance from the dissertation committee. Dr. Charles Noel, major professor, is acknowledged for his unending professional and emotional support throughout this study and the entire doctoral program. His willingness to direct a study on this topic will always be remembered. Gratitude is expressed to Dr. Gerald Hills, Marketing and Transportation, who was instrumental in evaluating conceptual issues related to the deceptive advertising problem. Appreciation is expressed to Dr. Roger Swagler, Consumer Economics, for critical evaluation of the impact of government standards on the consumer. Dr. Mary Frances Drake, Textiles and Clothing, contributed a great deal to the attitude theory section of this study; her comments and suggestions were greatly appreciated. All four members of the committee will be remembered for their time, encouragement and friendship throughout this study, making these two years a very enjoyable experience.

Gratitude is also expressed to the members of the interdisciplinary doctoral committee in Home Economics, Dr. Odland and Dr. Goertz, for stressing the problems and rewards of interdisciplinary studies. The cooperation of the Knoxville City schools in providing a sample for this study was greatly appreciated, as well as the cooperation of the students who took part in the study. Dr. Robert Woodruff, Marketing and Transportation, reviewed the initial proposal. His comments were very beneficial.

Recognition is given to the friends and family who provided emotional support throughout this study. Most of all, my friend, Scott Witter, to whom this dissertation is dedicated, deserves acknowledgment

for his contribution in data collection, data analysis and typing, as well as consistent support every step of the way.

ABSTRACT

The Federal Trade Commission monitors advertising, in an attempt to prevent consumer deception. The decisions made by the FTC are rarely based on any type of consumer evidence. Deception is determined by the way consumers perceive an advertisement, therefore it is essential that consumer research be used in assessing the problem of deception.

The purpose of this study was to investigate the issues of deceptive advertising and advertising substantiation based on attitude change. The Fishbein Extended Model (1967) was used to analyze attitudes toward purchasing four products, mouthwash, blemish cream, casual shoes and panty hose. The model is a linear compensatory relationship among three variables (1) attitudes toward behavior, (2) normative beliefs about performing the behavior and (3) motivation to comply with the normative beliefs.

Focus group interviews were conducted to identify evaluative criteria used by consumers in making purchase decisions for the four products, these criteria formed the basis for the research questionnaire.

Three hundred and seventy-five Knoxville City high school students participated in the study. The subjects were randomly assigned, by classes to a control or experimental group for one of the four products. Pretest-posttest gain scores for the control and experimental groups were analyzed using a t test of independence. Significant attitude change was found in three out of the four product groups after exposure to company advertisements.

The components of the Fishbein Extended Model were analyzed using multiple regression and stepwise multiple regression. The model was

significant in explaining behavioral intentions to purchase the brands used in the study.

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CHAPTER I

INTRODUCTION

I. INTRODUCTION

Government regulation of the business environment has increased in the past decade; one focus of government has been the extention of advertisement monitoring. The magnitude of government intervention affects both the business segment and the consumer segment of the United States, making an analysis of regulation extremely speculative. Recent criticism of the strong arm regulation of business by government has lead to concern about the productivity of government intervention.

The monitoring of advertising has been the responsibility of the Federal Trade Commission (FTC) since 1914. Initially, the FTC could only regulate advertising if the advertising threatened to reduce competition. In 1931 the Supreme Court issued an important decision holding that the FTC could not prohibit false advertising if there was no injury to a competitor. Repercussions from the decision provided the foundation for the Wheeler Lea Amendment, which extended the FTC act to include unfair methods of competition in commerce and unfair or deceptive actions or practices in commerce (1938).

Recently, the authority of the FTC has been questioned, primarily because of the basis on which the Commission makes decisions (Brandt and Preston, 1977; Hunt, 1977). The evidence which the FTC uses to determine deception comes from internal and external sources. Internal evidence is based on the FTC's intuition of deception in the message.

External evidence comes from testimonials by experts, consumer testimonials or consumer research. Of the 3,160 decisions which the FTC has made concerning deception in advertising, 94.7% were decided on the basis of intuitive evidence (Brandt and Preston, 1977).

The willingness of the FTC to use consumer evidence in advertising litigations will depend on the validity and reliability of research. It is in the interest of business to support and encourage consumer research as a future basis for screening potentially abusive advertisements. Consumers stand to benefit from increased reliance on buyer behavior studies, because it is the consumer who will ultimately bear the cost of regulation. Responsible regulation, whether it be self regulation by business, or regulation by government, will enhance the competitive environment. Excessive regulation will ultimately result in a decrease in the competitive status of businesses.

Several techniques, focusing on the consumer, have been used by marketing researchers to evaluate deceptive advertising. The purpose of this study is to evaluate the strengths and weaknesses of those approaches and to contribute to the body of information required to develop a decision making model for the FTC monitoring of advertisements.

II. CONCEPTUAL FRAMEWORK

In general, the FTC has adopted a classical analysis of consumer behavior. This approach is based on a S-R model, which assumes that for each stimulus (in this case, an advertisement) there is a response. This type of view negates the concept of selective consumer information

processing. The conceptual framework for this study was adopted from Engel, Kollat and Blackwell's model of consumer behavior (Figure 1). The Engel, Kollat and Blackwell (EKB) conceptualization is a comprehensive representation of the buying situation which includes a mediating component, the central control unit. It is the recognition of the thinking process, which changes the buying situation from a S-R situation to a S-O-R situation where O, the consumer, mediates how the information will be processed. In a S-R situation, the consumer is totally impressionable to advertising. In a S-O-R situation, the consumer exhibits selective perception.

Consumers generally perceive information in a selective manner; therefore it is not always possible to judge intuitively which advertisements will be deceptive. Consumer research combined with the FTC's intuitive judgment would provide a more viable basis for the decision-making activity.

Deceptive advertising has been related to attitudes; the individual's attitude toward a product is a function of beliefs and the evaluation of how a product relates to those beliefs (Gardner, 1976). Incongruence between the actual product attributes and the consumer's beliefs of product attributes is one approach to defining deceptive advertising. Information about a product can change an attitude if the information creates incongruity between the previous attitude and the information; or if a positive attitude is held toward a product, information supporting that attitude will strengthen the positive attitude.

Very little attempt has been made to assess deception from a consumer standpoint. Consumer research based on a buyer behavior model

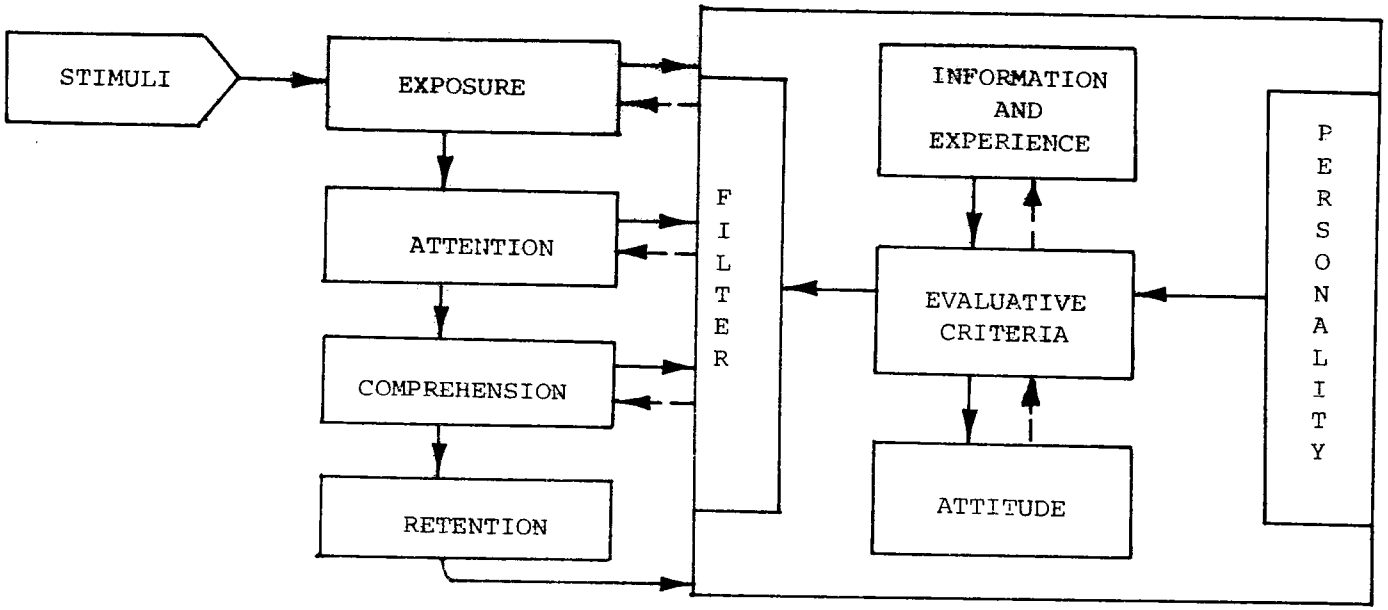


Figure 1. Learning Process and the Central Control Unit.

Source: Engel, Kollat and Blackwell, 1973, p. 228.

would increase the benefit to consumers by providing a basis for analyzing components of information processing. Consumers buy products on the basis of utility derived from bundles of product attributes (Lancaster, 1966). Analysis of consumer decision-making, based on the components of the EKB central control unit (information and experience, evaluative criteria and attitudes) will serve to identify dominant product attributes which are the basis for product choice. Fishbein's multi-attribute attitude model will aid in distinguishing which attributes are dominant in the decision-making process, and the manner in which advertising will alter the belief that a product provides the dominant attributes.

III. DEFINITIONS

Specific terms used throughout this study are defined in this manner. *Evaluative criteria* are those specifications used by the consumer to compare and evaluate products and brands (Engle, Kollat and Blackwell, 1973). An *attitude* is a basic orientation for or against various alternatives for purchasing and consumption. *Deceptive advertising* is a communication which presents a product in such a manner that the consumer is led to associate the product with significantly more salient attributes than it can actually provide (Gardner, 1976).

IV. RESEARCH OBJECTIVES

This study is an attempt to conceptualize a viable approach to the assessment of deceptive advertising and then to empirically test the approach. The following objectives are identified for the study: (1) to use focus group interviews to establish salient evaluative criteria for the products used in the study, (2) to develop a questionnaire which

will provide information about how individuals evaluate products, this procedure being an operationalizing of the Fishbein model components and (3) to empirically evaluate the model in an exploratory study.

This study is an attitude change approach to determining deceptive advertising. Chapter II contains a summary of the literature related to major factors in this study: The Federal Trade Commission Regulation of Deceptive Advertising, Attitude Theory, Attitude Measurement and Attitude Models Used to Identify Deceptive Advertising.

CHAPTER II

REVIEW OF LITERATURE

I. FEDERAL TRADE COMMISSION REGULATION OF DECEPTIVE ADVERTISING

The Federal Trade Commission was given the authority under Section 5(a) of the FTC Act to prevent unfair methods of competition in commerce. FTC vs. Raladam Company was a landmark case in the area of advertising (1931). This case involved a company which was marketing a remedy for obesity. The FTC attempted to stop the advertisement to protect consumers, but the Supreme Court ruled that the Commission could not issue an order prohibiting false advertising without proving that the advertisement adversely affected competition.

The Wheeler-Lea Act of 1938 amended Section 5(a) extending the authority of the Commission to the elimination of unfair or deceptive acts or practices in commerce. It was the Wheeler-Lea amendment which triggered the FTC's regulation activities. The approach used by the Commission has changed dramatically during the past 20 years. Two broad goals were identified in the FTC's *Policy Planning Protocol for Deceptive and Unsubstantiated Claims: A Management and Legal Perspective.* (Herzog, 1976). The major goal of the FTC is to "reduce the number of product choices that are based on misinformation because of deceptive statements by the seller (p. 3)." A second goal is to "increase the amount of information in the marketplace when the absence of the information amounts to deception or unfairness (p. 3)." Eight areas are reviewed by the Commission to determine if intervention is warranted: (1) consumer interpretations of the

claim, (2) size of the deception, (3) importance of the deceptive claim to the consumer, (4) likelihood that market forces will remedy the deception, (5) effect of intervention on information for the consumer, (6) effect that commission action or inaction will have on deterrence of the law violations, (7) appropriateness of the FTC rather than some other agency to regulate the action and (8) miscellaneous considerations.

Even with this elaborate apparatus for decision-making, the FTC has been severely criticized for non-implementation of consumer research evidence (Gellhorn, 1969; Aaker, 1974; Wilkes and Wilcox, 1974; Armstrong and Russ, 1975; Wilkie and Farnis, 1975). Questions of deception may go far beyond mere questions of fact with societal values influencing the type of protection needed by consumers (Cohen, 1974).

The FTC began an advertising substantiation program in 1971, hoping that public disclosure of the substantiating data by a firm about a product would help the consumer make more rational purchasing decisions. Substantiation programs were intended to provide consumers with whatever information a firm submitted, but recent actions by the Commission have only leaned toward an evaluation of the relevancy of the substantiation materials (Wilkes and Wilcox, 1974). The FTC not only requires adequate support for advertising claims, but also requires that uniqueness of a product attribute cannot be claimed unless it can be supported. Brands in monopolistically competitive markets are particularily susceptible to these types of uniqueness claims. "As the degree of similarity between competitive brands increases, competitive advertisements frequently emphasize product features or attributes to which trade names are assigned

but which are relatively common features to comparable quality brands" (Wilkes and Wilcox, 1974, p. 57).

Routine advertisement substantiation programs could have benefits to the consumer, because false uniqueness claims do not provide the consumer with additional information, but opponents of substantiation regulations cite adverse affects on competition. Requiring producers to substantiate every advertising claim with product tests would reduce competition because the cost of preparing to offer a new product would be increased. Potential competitors may not introduce products because testing would make the costs too high to make the investment feasible. In effect, existing products would be given grandfather rights because of the barrier to entry created by the FTC regulation (Telser, 1964; Brozen, 1973).

Cease and Desist Orders are issued to companies which cannot adequately substantiate a claim. Depending on the severity of the offense, the Commission may order an Affirmative Disclosure or Corrective Advertising. Affirmative disclosures are clear and conspicuous disclosures of additional information, to which the FTC feels that the consumer should have access. The purpose of corrective advertising is to eradicate the residual effects of deceptive advertising. Corrective advertising orders generally specify that 25% of the company's advertising budget for the next year be spent on corrective advertising (Wilkie and Gardner, 1974). Although the copy, in addition to type of media, time period and scheduling details, must be approved by the FTC; the corrective advertisements which have been required by the FTC have been weak and ineffective (Wilkes and Wilcox, 1974). The advertisements are barely recognizable as

rebuttals to a deceptive advertisement; instead the corrective copies are viewed by the consumer as voluntary statements by a concerned manufacturer, who is worried that consumers might have misinterpreted his product claims (Bernacchi, 1976).

Issues related to corrective advertising have led to some consumer research. Sawyer summarized the research on corrective advertising using a consumer research base (Table 1). Three of the five studies used beliefs as a basis for determining deception. Based on the research summarized in Table 1, Sawyer made the following recommendations for further research in deceptive and corrective advertising (1977). (1) Laboratory experimentation is required for control, privacy and low cost. (2) The brand should be a real rather than a fictitious product because consumers make decisions based on information and experience. (3) Subjects should be part of the prime consumer segment for the product.

The FTC has approached deception in case-by-case rulings, making the law proscriptive rather than prescriptive (Gardner, 1975). In response to the lack of a definition of deceptive advertising and a proscriptive classification of deception, researchers have begun to assimilate a consumer research approach to identifying deception. Attitude theory and measurement of attitude change have provided the basis of research related to deceptive advertising.

II. ATTITUDE THEORY

Attitude is defined as a mental and neural state of readiness to respond, which is developed through experience and which has a direct influence on behavior (Allport, 1967). Attitude can be identified as

Table 1. Research on Corrective Advertising

	Research Method	Product	Advertising Medium	Subjects	Were Beliefs Measured? (Deception)
Hunt (1973)	Lab	F-310 Gasoline	Print	College Students	No (affect toward the brand)
Dyer and Keuhl (1974)	Lab	Diet Soft Drink Suntan Lotion	Radio Print	College Students	No
Kassarjian Carlson and Rosin (1975)	Lab	Motorcycle Safety Device	Newspaper	College Students	No (ad recall general beliefs about brand and retailer)
Mazis and Adkinson (1976)	Lab	Mouthwash	Radio	College Students	Yes (overall brand attitudes)
Kuehl and Dyer (1976)	Lab	Blemish Cream Radio Station	Print	High School Students	Yes
Dyer and Kuehl (1978)	Lab	Mouthwash	Print	Non degree Adult Education Classes	Yes

having a cognitive, an affective and a behavioral component. The cognitive component is related to the manner in which the object is perceived; feelings of like or dislike are attributed to the affective component. The manner in which a response is activated toward an object is a function of the behavioral component.

Properties of attitudes have been said to include direction (Hartley and Hartley, 1952), magnitude (Hartley and Hartley, 1952), intensity (Cantril, 1946; Hartley and Hartley, 1952), ambivalence (Scott, 1966), salience or centrality (Hartley and Hartley, 1952; Kretch and Crutchfield, 1948; Scott, 1966; Stern, 1938) and cognitive complexity as related to multiplicity or differentiation (French, 1947; Lewin, 1936; Zagone, 1960). Overtness (Kretch, Crutchfield and Ballanchy, 1962), embeddedness (French, 1947; Kretch and Crutchfield, 1948; Scott, 1968), flexibility (Scott, 1966) and consciousness (French, 1947) have also been included in the theoretical construct known as attitude.

The concept of centrality has been related to attitude change. When an attitude is based on a small amount of stored information related to a decision-outcome, the person is more likely to change the attitude (Newcomb, Turner and Converse, 1965). Contrastingly, the more central the attitude, the more selective attention, comprehension and retention is likely to be in the consumer's framework (Engel, Kollat and Blackwell, 1973).

The disciplines of sociology and psychology have contributed a great deal to attitude theory development; but the disciplines of marketing and consumer economics have made advances in bringing the abstraction of attitude theory to an operational model. In essence, most of the

attitude theories are not really theories at all, but only conceptual models which lack the empirical evidence to attain theory standing. A model establishes an isomorphism between the object and a logical system (Hughes, 1977). Two different approaches to attitude theory have been used in marketing literature. One approach is the cognitive-affective-conative model, the second approach is the expectancy-value model.

The cognitive-affective-conative model is used in an awareness, preference and purchase framework, commonly known as the hierarchy of effects model. In this framework, a preference change must precede a change in behavior. The hierarchy model assumes that directions of cause and effect exist; this assumption is difficult to empirically validate (Hughes, 1977).

Beliefs and values of attributes are the basis for an expectancy-value attitude model. Expectancy-value models describe choice behavior based on available alternatives. Attitude models such as the one proposed by Fishbein (1967) are expectancy-value models which base behavior on the subject's evaluation of expected gain or loss provided by the behavior. Expectancy approaches attempt to predict behavior from rewards associated with specific purchase intentions. The next section will develop the use of an expectancy model, the Fishbein Attitude Model (1967), to evaluate consumer's attitudes toward purchasing an object.

III. ATTITUDE MEASUREMENT

Fishbein views attitude acquisition as an automatic, nonverbalized process, which occurs with concept learning. Beliefs about an object and the attitude toward the object are part of a continuous, dynamic

relationship (Fishbein, 1967). Changes in one part of the cognitive structure will result in changes in other parts of the cognitive structure.

The initial and simplest form of Fishbein's model is

$$A_o = \sum_{1}^{n} B_i A_i$$

Where:

A_o = attitude toward an object

B_i = the strength of belief i about o

A_i = the evaluative aspect of B_i

n = number of beliefs

Although all of a person's beliefs serve as an indication of a person's attitude, there are a limited number of salient beliefs which are the determinants of an attitude. Six to 11 beliefs are generally salient beliefs which are part of the individual's cognitive hierarchy of responses.

Fishbein theorizes that attitude change will result when an individual's beliefs about an object change. This may be due to learning new beliefs which ellicit new stimulus-response associations or the strength of current beliefs may change through positive or negative reinforcement. A second factor which will create attitude change is a change in the evaluative aspects of an object attribute.

Fishbein's original attitude model has been extended to predict behavioral intentions. Fishbein's theoretical basis for attitudes and behavioral intentions is taken from the work of Dulany on propositional control (1968). In the extended model, an individual's intention to

perform an act is a function of:

$$B \cong BI = [A_{act}]\, w_0 + [NB(MC)]\, w_1$$

Where:

B = overt behavior

BI = behavioral intention

Aact = attitude toward an act

NB = normative belief

MC = motivation to comply with the normative belief

w_0 and w_1 = empirically determined weights

The relative importance of the w_0 and w_1 factors change with the kind of behavior which is being predicted, with conditions under which the behavior occurs and with the person who is to perform the behavior. The first component of the equation (Aact) is equal to Fishbein's initial $A_o = \sum_1^n B_i\, A_i$. The second component (NB) (MC) refers to a personal norm, a social norm, or both. Three variables are included in the extended model (1) attitudes toward behavior, (2) normative beliefs (personal and social) and (3) motivation to comply with the normative beliefs. Although other variables may influence behavior, these other variables are viewed as indirectly influencing the person (Fishbein, 1967).

The normative component of Fishbein's Extended Model is not as familiar to researchers as the earlier form. "NB refers to a specific behavioral act, the performance of which is expected or desired under the given circumstances" (Fishbein, 1972, p. 2). The regression coefficients,

indicating the relative importance of Aact and NB in predicting BI, varies from product to product. Ryan and Bonfield (1975) summarized the research using the Fishbein Extended Model (Table 2). A high multiple correlation was obtained when Aact and (NB)(MC) were used to predict BI. Generally, Aact carried more weight than (NB)(MC) when they were used to predict behavior.

Basic conceptual issues have been presented about the various components of Fishbein's Extended Model. The discussion of these issues can be focused on the three major components of the model, the original attitude model, the normative segment and the measure of behavioral intention.

The popularity of linear-compensatory attitude models such as those used by Fishbein (1967) and Rosenberg (1956) can be attributed to the specificity of the model's equation. The validity of the attitude formula has been questioned because the theoretical justification for the model has not been mathematically derived (Calder, 1975). Empirical substantiation of the cognitive relationships will require a much larger information base. This criticism is a valid one; empirical evaluation of the model is one of the objectives of this study.

Multicolinearity of the attitude component and the normative component has also been an issue. High correlations between the predictor variables in a multiple regression equation cause the beta weights to be unstable (Lutz, 1975). If the attitude and normative components are highly correlated, the explanatory use of the model would be lessened for decision-making bodies such as the FTC.

Table 2. Summary of Findings from Initial Marketing Applications of Fishbein's Behavioral Intention Model

Study	N	Beta Weights		Multiple Correlations on BI	Correlation BI, ≃ B
		Aact	NBjMCj		
Wilson et al. (1973)					
Prisoners' Dilemma Game					
Perceived Similar	20	.61**	.29	.70**	.82**
Perceived Dissimlar	20	.74**	-.03	.69**	.66**
Lutz (1973a)					
Season Football Tickets	100	.68**	.08	.73**	
Season Football Tickets	77	.60**	.20**	.75**	
Lutz (1973b)					
Fictitious Detergent	246	.64**	.04	.64**	
Fictitious Detergent	246	.46**	.13	.48**	
Weddle and Bettman (1973)					
Purchasing Term Papers	57	.49**	.24*	.54**	
Ryan (1973)					
Chrysler Corporation	91	.45**	.35**	.67**	
General Motors Corp.	91	.59**	.27**	.73**	
Ford Motor Co.	91	.64**	.16*	.69**	
American Motors	91	.37**	.41**	.64**	
Foreign Mfgrs.	91	.57**	.19*	.66**	
Ryan (1974)					
Ultra Brite	80	.35**	.20	.47**	
Mustang II	80	.73**	.06	.76**	

Table 2 (Continued)

Study	N	Beta Weights		Multiple Correlations on BI	Correlation BI, ≃ B
		Aact	NB_j MC_j		
Bonfeld (1974)					
Fruit Drinks					
Total Sample	158	.21**	.44**	.60**	.40**
High Importance	52	.40**	.47**	.81**	.44**
Low Importance	106	.12	.42**	.49**	.38**
High Loyalty	53	.00	.64**	.62**	.03
Medium Loyalty	34	.24	.19	.33**	.21
Low Loyalty	27	.92**	-.15**	.77**	.41*
Low Education	85	.14	.40**	.49**	.37**
High Education	73	.29**	.49**	.70**	.43**
Harrell and Bennett (1974)					
Prescription Brand A	93	.33	.17	.42**	.51**
Prescription Brand B	93	.39	.07	.40**	.47**
Prescription Brand C	93	.33	.22	.45**	.27**
Prescription Brand D	93	.38	.15	.46**	.27**
Prescription Brand E	93	.46	.20	.53**	.33**
Mathews et al. (1974)					
Gleem	162	.24**	.46**	.62**	
Crest	162	.21**	.54**	.66**	
Colgate	162	.36**	.38**	.67**	.90**
Ultra Brite	162	.11*	.59**	.66**	
MacLeans	162	.12	.57**	.65**	
Pepsodent	162	.09*	.68**	.74**	

Table 2 (Continued)

Study	N	Beta Weights		Multiple Correlations on BI	Correlation BI, ≃ B
		Aact	$NB_j MC_j$		
Wilson (1975)					
High Risk Supplier	39	.05	.03	.66**	
Low Risk Supplier	39	-.03	-.05	.24**	

*p < .05.

**p < .01.

Source: Ryan and Bonfield (1975, p. 126).

Although behavioral intentions have been used extensively in marketing research, it is only recently that consumer theorists have viewed behavioral intentions as an immediate precursor to purchase behavior (Fishbein, 1967; Howard and Sheth, 1969; Lutz, 1975; Ryan, 1974). One criticism of using behavioral intentions as an indicator of behavior is that overt behavior is rarely measured, but those studies using a measure of overt behavior have correlated significantly with the Fishbein Extended measure of behavioral intention (Ryan and Bonfield, 1975).

VI. ATTITUDE MODELS USED TO IDENTIFY DECEPTIVE ADVERTISING

Gardner (1975), Pessemier and Wilkie (1972) and Adams (1977) used attitude models developed by Fishbein (1967) and Rosenberg (1956) to investigate deceptive advertising. The basis of these theories is that attitudes are learned processes which are part of the labeling (process formation) behavior. The behavior framework used for one situation is constantly being used to hypothesize occurrences in other situations. The consumer will associate ideas about quality, price and performance based on learned experiences with other products.

The linear compensatory combination properties which are assumed for the Fishbein model indicate that positive attributes may compensate for negative attributes, supporting the idea that consumers purchase product attribute bundles. Attitudes are the result of the degree to which a consumer believes a product contains certain attributes.

Gardner used multi-attribute attitude theory to develop the Normative Belief Technique for determining deception (1975). This approach

goes beyond Fishbein's in that a variety of structured and unstructured techniques are used to gather salient product attributes from a variety of product users. The most unique part of Gardner's technique calls for supplementary data from experts for the product area under consideration. These experts provide input into determining the range of attributes; the inputs are therefore free of consumer expectation bias.

Promotional strategies are aimed at either changing existing beliefs about a product or brand, at introducing a new belief or at making an existing belief more salient (important). Therefore there are two ways in which deception might occur. First, the promotional communication could influence the probability that a particular belief will be associated with an attitude toward a brand. Second, the promotional communication could influence the evaluation of a particular attribute associated with a product class (Gardner, 1975, p. 43).

Gardner classified product attributes into two areas, functional and nonfunctional (1975). Attributes related to design, wear, performance and guarantees are functional. Nonfunctional attributes relate to style, appearance and other nonobjective factors. Two assumptions about deception are based on these classifications of attributes. If a functional attribute is associated with a particular brand and there is no evidence that this is true, then deceptive beliefs exist. If a non-functional attribute is viewed by consumers as a functional attribute then deceptive beliefs exist (Gardner, 1975).

Although attitudes have been used to identify deceptive advertising, there have been several voids in the research (Table 3). Kassarjian, Carlson and Rosin (1975) and Kuehl and Dyer (1976) used only the belief

Table 3. Summary of Research on Deceptive Advertising Using Attitudes

	Setting	Sample	Products	Type of Advertisement	Was Sample Representative of Users?	What was Measured?
Adams (1977)	Lab	Metropolitan Women N = 314	Mouthwash Juice Drinks Household Disinfectants Washing Machines	Actual Advertisements	Yes	Attitude Change
Kuehl and Dyer (1976)	Lab	High School Students	Blemish Cream Radio Station (hypothetical)	Fictitious	Yes	Beliefs-Normative Group Beliefs
Olson and Dover (1978)	Lab	Housewives n = 31	Coffee	Fictitious	Partially	Beliefs Attitude Change Behavioral Intention (without NB (MC))

portion of Fishbein's attitude model. Hunt (1973) used affect (like or dislike) about the brands. No attempt has been made to measure multi-dimensional attitudes (behavioral intentions). The use of the Fishbein Extended Model could prove to be very important in assessing deceptive advertising, particularily because it includes a normative component.

V. SUMMARY

Consumers have expressed a feeling that advertising is not truthful and is not a reliable form of information (Gazda and Gourley, 1975; Barksdale, Darden and Perreault, 1976). It is the goal of the FTC to protect consumers from these types of advertisements. Currently the commission uses intuitive evidence to determine advertising deception. Advertisers, marketers and even consumer researchers have called upon the FTC to implement consumer evidence in determining deception and to include consumer research in litigation proceedings.

Deception is a perceptual process; therefore, only consumer research can adequately evaluate deceptive advertising. Most research approaches to determine deceptive advertising have utilized the multi-attribute attitude theory proposed by Fishbein (1967). Multi-dimensional attitude measurement is possible with the Fishbein Extended Model (1967). Empirical evaluation of the procedure is necessary to determine its applicability.

Chapter III is a discussion of the methods and procedures used in this study to assess deceptive advertising, or advertising which could require substantiation. The procedures described in Chapter III focus on consumer perceptions of the advertisements. The theoretical basis for the Fishbein

Extended Model will serve as the tool for analyzing consumer perception and attitude change.

CHAPTER III

METHODS AND PROCEDURES

I. THE PRODUCTS

A variety of product classes were considered for the study. An initial decision was made to include both products which had been the object of FTC decisions, and products which had not been cited in FTC actions, but were part of a product class currently being monitored.

Four products were used in the study, mouthwash and blemish cream, both of which have been the object of FTC actions and casual shoes and panty hose which have not been cited but are being monitored by the FTC. These four product groups were selected for several reasons. (1) Advertising expenditures for these products were significant. (2) Physical attractiveness was a major component of the advertising thrust. (3) The products were characterized as both search and experience goods. (4) The products were purchased for both functional and non-functional attributes. (5) The products were produced by monopolistic competitors and are differentiated primarily on the basis of brand name. (6) The four products were frequently purchased by a homogeneous market sector, high school students.

The specific brands used in the study were determined by focus group interviews with 31 freshman University of Tennessee, Knoxville students. Brands which were frequently mentioned by the students were included in the study. These brands were:

Mouthwash	Blemish Cream	Casual Shoes	Panty Hose
Scope	Bonnie Bell	Scholl	Sheer Energy
Listerine	Sea Breeze	Famolare	Hanes-Ultra Sheer
Lavoris	Bare Face	Fanfares	L'Eggs
Listermint	Clearasil	Earth Shoes	No Nonsense

II. SELECTION OF EVALUATIVE CRITERIA

Focus group interviews were conducted with 31 freshmen students in Textiles and Clothing at the University of Tennessee, Knoxville to determine salient evaluative criteria for the products being studied. Groups of six to eight students were invited to discuss the attributes which they considered important when buying the products. The focus group interviews were tape recorded, and later tabulated for response frequencies. After discussing the list of attributes, the students were asked to rank the evaluative criteria and to evaluate how much various brands differed for each of the attributes. Table 4 contains a summary of the evaluative criteria and the manner in which they were evaluated

FTC decisions were also included in determining which evaluative criteria to include. Mouthwash and blemish cream products have been cited by the FTC, therefore the evaluative criteria used in determining deception were considered for use in the questionnaire. Input from the companies, in the form of the advertisement claims, were also considered as evaluative criteria. If a company featured a specific attribute in promotions, that attribute was a potential evaluative criteria.

These three sources, focus groups, FTC rulings and company claims, were used to establish the evaluative criteria used for the products. The

Table 4. Focus Group Interview Evaluative Criteria N = 31

Evaluative Criteria	Frequency Response	Ranking	Variability Across Brands
Mouthwash			
Gets Rid of Odors	9	1	yes
Smell	1	6	yes
Taste	5	3	yes
Color	1	7	yes
Price	4	4	yes
Where You Can Buy It	1	8	no
Kills Germs	8	2	yes
Brand Name	2	5	yes
Blemish Cream			
Type of Formula	4	4	yes
Moisturizing Effect	4	5	yes
Cleaning Ability	8	1	yes
Smell	1	7	yes
Size of Container	1	8	no
Price	1	6	yes
Brand Name	5	3	yes
Prevention of New Blemishes	6	2	yes
Color	1	9	no
Casual Shoes			
Durability	4	3	yes
Style	9	2	yes
Comfort	10	1	yes
Sizing	1	7	no
Originality	3	4	yes
Brand Name	2	5	yes
Price	2	6	yes
Panty Hose			
Durability	6	3	yes
Looks	5	4	yes
Fit	10	1	yes
Sizing	1	6	no
Texture	1	5	yes
Does Not Bag	8	2	yes

final evaluative criteria and the sources from which they were derived are presented in Table 5.

III. DESIGN OF THE QUESTIONNAIRE

The questionnaire was designed to measure the components needed for Fishbein's Extended Model (1967). An initial questionnaire was developed and pretested on 51 freshmen Textiles and Clothing students at the University of Tennessee, Knoxville. After completing the questionnaire, the students were asked to indicate areas which they found difficult to understand. Based on these suggestions, the questionnaire was refined. The questionnaire was approved by the Human Subjects Committee, University of Tennessee, Knoxville.

The questionnaire used for the mouthwash products is included in Appendix A as an example of the format. Questionnaires for the other three products were identical in length and similar in format. The questionnaire for each product was developed from the evaluative criteria to be identified in Chapter III. Only the posttest experimental group received a questionnaire including page 6 of the posttest. The Human Subject Consent form and the instructions which were read to the subjects are also included in Appendix A.

The relationships between segments of the questionnaire and components of the Fishbein model are specified later. Parts II and VII of the questionnaire were developed for another study, therefore the information from these portions will not be included in this analysis.

Table 5. Final Evaluative Criteria by Source

	Source		
	Focus Groups	FTC	Advertising Claims
Mouthwash			
Taste	x		x
Smell			x
Price	x		
Odor Control	x		x
Germ Killing Power		x[1]	x
Cold Prevention		x[1]	x
Brand Name	x		x
Blemish Cream			
Strength of Formula	x		x
Cleaning Effectiveness	x	x[2]	x
Effect on Skin Moisture	x	x[2]	x
Smell	x		
Blemish Prevention	x	x[2]	x
Type of Brand	x		x
Price	x		x
Casual Shoes			
Originality	x		x
Feel (Natural vs. Unnatural)	x		x
Leg Exercise			x
Health Value For Feet			x
Price	x		x
Effect on Posture			x
Durability	x		
Panty Hose			
Texture	x		x
Stretch			x
Durability	x		
Cost	x		
Attractiveness to the Opposite Sex			x
Sizing	x		x
Feel During Wearing	x		x

[1] FTC vs. Warner-Lambert Company Docket 8891, June 1972.

[2] FTC vs. Savoy Drug and Chemical Company, Docket c-2743, October 21, 1975.

FISHBEIN COMPONENT	QUESTIONNAIRE
BI=BEHAVIORAL INTENTIONS	Part I Questions 8-11
Aact=ATTITUDE $Aact=\sum_{1}^{n} A_i B_i$	
A=Affect	Part III Questions 19-25
B=Beliefs	Part IV Questions 26-53
NB=NORMATIVE BELIEFS	Part V Questions 54-57
MC=MOTIVATION TO COMPLY	Part VI Question 58

Behavioral Intentions were measured for each of the four brands using a seven point scale ranging from "I Will Not Buy This Brand" (-3) to "I Will Buy This Brand" (+3). Fishbein (1967) has supported the theory that behavioral intentions are more likely to be inferences of behavior if the intention is measured on a very situation specific level, therefore the BI's were measured for each brand rather than for the product class.

Affect was measured on a scale from Very Unimportant (-3) to Very Important (+3). This scale was measured at the product, rather than the brand level, because the evaluative importance or unimportance of an attribute would be a generalized concept.

Beliefs were measured at the brand level, subjects were asked to evaluate each brand on each of the seven attributes. A scale of Extremely Improbable (-3) to Extremely Probable (+3) was used. The normative belief component of Fishbein's Extended Model was measured in Part V. Subjects were asked to estimate how likely it would be that other people who are important to them would recommend that they purchase each of the four brands. These questions were scaled on an Extremely Improbable (-3) to Extremely Probable (+3) continuum. Motivation to Comply was scaled to

measure how much the subjects wished to do as others thought they should. Subject were asked "In general do you care if your choice of (product) is similar to what other people who are important to you would recommend?" This question was measured on a seven point, Don't Care At All (-3) to Care a Great Deal (+3), scale.

The experimental group's posttest questionnaire contained an additional section. Subjects were asked to respond to eight statements related to explicit or implied advertising claims--two statements for each brand. The explicit claims came directly from the advertisements. The implied claims were based on information from *Do's and Don'ts in Advertising Copy* (1977). This publication was developed by the Council of Better Business Bureaus and is a synthesis of hundreds of FTC proceedings which have been indexed by product group. The book is loose leaf form so that it can be updated as more decisions are made.

Although all of the questions were scaled from -3 to +3, a 1-7 scale was used for statistical analysis of the data to retain attitude scores which were positive and negative. Researchers have differed in opinion about the scoring of the scales. A minus 3 to plus 3 scale questionnaire provided some psychological advantages because subjects could more readily identify with 0 as a neutral response. Because this study was focusing on attitude change as a measure of deceptive advertising, it was desirable to use the 1-7 scale data analysis for identification of negative and positive attitudes.

IV. ADVERTISING TREATMENT

Advertisements for the four brands within each product class were selected from magazines which were available in the high school libraries. The advertisements were selected as representative promotions without the intention of selecting deceptive or misleading lines of copy. The advertisements which were used as the advertising treatment are included in Appendix B.

Subjects who received the experimental treatment were asked to read the Xeroxed copies of the four advertisements before completing the questionnaire, in addition, colored slides of the four advertisements were displayed throughout the testing because most of the advertisements originally appeared in color. Subjects were allowed to refer to the advertisements while answering the questionnaire, therefore retention of the information was not included explicitly as a variable.

V. THE SAMPLE

High school students were selected as the sample for this study. The students were a segment of the actual market for the products selected; the FTC has indicated that it is important to use potential consumers in research on deceptive advertising. Although college students also represented a segment of the market for these products, they were not used in the study because they have been used extensively in research studies.

Four distinct subsamples were used in this study; one for each of the product classes being analyzed. The type of product under investigation

dictated which subjects would be included in the sample. Males, for instance were not included in the panty hose or casual shoe sample because these products were typically purchased by females.

The nature of the research design essentially limited the sample to students who were willing to take part in answering the pretest and posttest questionnaires. Absenteeism during the posttest reduced the size of the initial sample by 12%; an additional 5% of the questionnaires were incorrectly completed and therefore, were not included in the study. The initial sample of 452 was reduced to 375.

The final sample for the study consisted of 375 senior high school students from four high schools in the Knoxville City school system. The schools were selected for geographic and socio-economic variety to represent a cross-section of high school students in the city. Students were initially randomly assigned to classrooms in the fall by the schools. The products, and the control vs experimental treatments, were randomly assigned to classrooms. The final total sample size for each of the product groups was:

Mouthwash	n = 93
Blemish Cream	n = 107
Casual Shoes	n = 83
Panty Hose	n = 92
Total	N = 375

VI. EXPERIMENTAL DESIGN

A pretest-posttest control group design was used for the study (Figure 2). The posttest was administered one week after the pretest.

	PRODUCTS		O_1 PRETEST		O_2 POSTTEST
	Mouthwash	n=46	1. BI	Advertising Treatment	1. BI
	Blemish Cream	n=58	2. A		2. A
	Casual Shoes	n=42	3. B		3. B
	Panty Hose	n=43	4. NB		4. NB
			5. MC		5. MC
RANDOM ASSIGNMENT					
	Mouthwash	n=48	1. BI		1. BI
	Blemish Cream	n=50	2. A		2. A
	Casual Shoes	n=41	3. B		3. B
	Panty Hose	n=50	4. NB		4. NB
			5. MC		5. MC

Figure 2. Pretest-Posttest Control Group Design.

Most threats to internal validity were controlled in the pretest-posttest control group design; mortality was the main threat. Mortality in this case referred to subjects dropping out of the study because of the experimental treatment. It was unlikely that this type of mortality affected the study because the experimental treatment was administered at the same time as the posttest. The variables for the study are presented in Table 6 with the directionality of their ratings.

To reduce bias which could be introduced by the administrator of the questionnaire, the instructions were read so that they would be the same for each testing. The instructions are included in Appendix A. The same researcher administered the questionnaires for the entire study. The teacher of the class remained in the room during the testing but little or no interaction took place between the subjects and the teachers.

Problems were anticipated regarding the reading ability of the students, therefore it was decided that if the students asked a specific question about the meaning of a word the researcher would attempt to simplify the term by offering several synonyms, but very few students requested clarification of a term. When the subjects completed the questionnaire, the researcher briefly checked the responses to confirm that all of the questions had been answered. If some questions were not answered, the researcher requested that the subject respond to every question.

The experimental group was asked to read advertisements for the four brands before completing the posttest questionnaire. The subjects were individually provided with black and white copies of the

Table 6. Directional Rating of Variables

Variable	Range	High Score	Low Score
Behavioral Intentions	1 to 7	High Importance	Low Importance
Affect	1 to 7	High Importance	Low Importance
Belief	1 to 7	High Importance	Low Importance
Normative Belief	1 to 7	High Importance	Low Importance
Motivation to Comply	1 to 7	High Importance	Low Importance
Hollingshead Social Position	1 to 7	Low Social Position	High Social Position

advertisements; in addition color slides of the four advertisements were shown. Each slide was shown for 30 seconds, then the entire group was repeated. This procedure continued until the posttest questionnaires had been completed.

VII. HYPOTHESES AND STATISTICAL ANALYSIS

Hypotheses 1-3 were related to the deceptive advertising issue and were analyzed in those terms. Hypotheses 4 and 5 were related to the structure of the Fishbein Extended Model and assumptions guiding its use. Hypotheses are stated in the null form.

H1. There will be no change in attitude following exposure to the advertising treatment.

Mean gain scores comparing attitudes are measured by $Aact = \sum_{1}^{n} B_i A_i$ were calculated for the experimental and control group and a t-test for independent samples was used to compare the two groups.

H2. There will be no change in behavioral intentions following exposure to the advertising treatment.

Mean gain scores comparing behavioral intentions as measured by Fishbein's Extended Model (1967) were calculated for the experimental and control group and a t-test for independent samples was used to compare the two groups.

H3. There will be no significant difference between affect and beliefs for the four brands.

Two-way analysis of variance was used to compare the means for affect and beliefs. Analysis of variance is a method for simultaneously comparing several means to determine if a statistical relationship exists

between the variables. The fixed effects analysis of variance model was most appropriate for this study because inferences cannot be made about affect and beliefs for other products from the results of this study.

H4. The Aact and NB, MC model will not be a significant source in predicting BI.

Multiple regression analysis was used to analyze H4. Stepwise regression using an R^2 maximization technique was used to analyze the contribution of independent variables in explaining the dependent variable. The independent variables used in this analysis were Aact, NB, MC and the interaction term NB (MC). The dependent variable was behavioral intention for purchasing a particular brand. A SAS'76 R^2 maximization program was used for the analysis; this technique involved evaluation of all the independent variables with an ultimate selection of the best one term, two term, three term and four term model for maximizing R^2. The reason for using the R^2 criterion was not to maximize R^2, but instead to find the point where adding more independent variables was not worthwhile because it led to a small increase in R^2 (Neter and Wasserman, 1974).

H5. There will be no significant relationship between the Aact, NB, and MC components in predicting BI.

Partial correlation coefficients derived from multivariate analysis of variance were analyzed for Aact, NB and MC relationships. The purpose of using partial correlation coefficients was to investigate the relationship between two variables while the other variable was controlled. When the residuals of the two variables were analyzed, a measure of the relationship between the two variables was identified which was independent of the third variable (Blalock, 1972).

CHAPTER IV

RESULTS AND DISCUSSION

This chapter is a summary of the demographic and statistical analyses of the data. The chapter will be divided into three main sections, Demographic Information, Attitude Change and Analysis of the Fishbein Model Components. Within three sections, the discussion will be divided into four sections for the product groups.

I. DEMOGRAPHIC INFORMATION

The demographic information included in this section was the basis for a discussion of factors which could influence attitude change. Hollingshead's Two Factor Index of Social Position (1965) was used as a tool for identifying differences between socio-economic position for the control versus experimental groups. The index used occupation and education as classification factors; both occupation and education were ranked from 1-7 with one representing the highest classification and seven representing the lowest classification. The two terms were weighted in this manner:

Occupation χ 7

Education χ 4

The final social position scores ranged from 11-77. Low scores indicated upper social position; high scores indicated lower social position.

Mouthwash Sample

Ninety-four subjects completed the mouthwash questionnaire. The control and experimental groups were evenly distributed on two

classification variables, age and sex, but were not proportionately distributed on the social position variables, parent's occupation and education (Table 28, Appendix C). The composition of the experimental group included 43.5% students whose parent's occupation ranked in the top three classification levels; while only 20.9% of the control group's parents were in the top three classification levels. The bulk of subjects in the experimental group came from middle-upper levels of occupation. The majority of control subjects came from homes of middle-lower levels of occupational status.

The differences between the two groups were even more apparent for parent's educational level. Over 43% of the experimental group subjects came from homes where the head of the household had completed some college; while only 21% of the control group came from homes where the head of the household had completed some college.

Blemish Cream Sample

The subjects in the blemish cream sample were also fairly evenly distributed on age and sex, but again the experimental group was represented more heavily by subjects from families with high levels of occupational status and education (Table 29, Appendix C). The experimental subjects came from middle-upper social position families while the control group came from families which were middle level in social position.

Casual Shoe Sample

Subjects in this sample represented a wide variety of social levels (Table 30, Appendix C). The control group in this sample included slightly more subjects from higher status positions; over 29% of the subjects in the control group came from highly professional families representing

occupations such as doctors, lawyers and college professors. The two groups for casual shoes were comparable for the other classification variables.

Panty Hose Sample

Both the experimental and control groups for panty hose contained a large number of subjects from homes where the head of the household was well educated (Table 31, Appendix C). Fifty-five percent of the experimental group's parents had attended at least some college, nearly 37% had earned a BS or graduate degree. Fifty-eight percent of the control group's parents had attended at least some college and 36% had earned a BS or graduate degree. The samples were also comparable for the remaining classification variables.

Summary

The product groups were not always comparable on parent's occupation and education. Correlation coefficients were computed to investigate the relationship between social position and the attitude variables. The results of the analysis are presented in Tables 32-35, Appendix C. No relationship was identified between social position and attitude gain score for Aact or the Fishbein Extended Model. In addition, no relationship was identified between social position and the various components of the Extended Model (Aact, NB, MC). This indicated that the demographic differences for experimental and control groups, were unimportant for the variables being studied.

II. ATTITUDE CHANGE

The primary objective of this study was to determine if attitude change resulted after exposure to an advertisement. In this section, pretest and posttest attitude scores were computed for subjects in the experimental and control groups. The analysis was therefore a disaggregated view of attitude at the subject level with an aggregate analysis of the total attitude change for the group.

Mean gain scores were calculated for each group and the parametric independent samples t-test was used to compare the groups. The sample sizes were not equal and the population variances could not be assumed homogeneous, therefore a corrected number of degrees of freedom was calculated. The degrees of freedom were found from the estimated variances of the means (Hays, 1973); the degrees of freedom in the analysis were different for each of the control and experimental groups.

Mouthwash

No change in attitude was identified when attitude was measured by the original Aact Fishbein Model or the Extended Model (Table 7). The mean gain score (Posttest-Pretest) was actually lower for the experimental group than for the control group for three brands, Scope, Listerine and Listermint. For Listerine, the posttest score was lower than the pretest score, indicating that the subjects evaluated the brand more negatively after reading the advertisement. This analysis does not substantiate rejection of null hypotheses 1 or 2; no differences existed between control and experimental groups on attitude change as measured by the original Fishbein Aact or the Extended Fishbein Model.

Table 7. Attitude Change Gain Scores for Mouthwash Brands N = 94

VARIABLES	N	MEAN	SD	RANGE	DF	T
Aact Attitude Gain Score (Posttest-Pretest)						
Scope-Control	48	7.771	39.578	- 86 to 145	88	.842
Scope-Experimental	46	0.015	47.516	-119 to 190		
Listerine-Control	48	0.271	48.23	-113 to 98	91	.262
Listerine-Experimental	46	- 2.391	50.18	- 85 to 197		
Lavoris-Control	48	- 0.271	39.278	- 95 to 79	91	-.552
Lavoris-Experimental	46	4.413	42.879	- 71 to 146		
Listermint-Control	48	13.750	45.342	-112 to 130	90	.876
Listermint-Experimental	46	5.000	51.152	- 83 to 211		
Fishbein Extended Model Gain Score (Posttest-Pretest)						
Scope-Control	48	11.500	43.782	- 85 to 166	90	.950
Scope-Experimental	46	2.326	49.566	-133 to 190		
Listerine-Control	48	0.083	50.435	-127 to 97	91	.253
Listerine-Experimental	46	- 2.609	52.659	- 91 to 197		
Lavoris-Control	48	1.750	44.266	-116 to 79	90	-.566
Lavoris-Experimental	46	7.174	48.500	- 88 to 181		
Listermint-Control	48	14.292	48.463	-120 to 146	90	.614
Listermint-Experimental	46	7.804	53.578	-111 to 211		

Although the attitude gain scores were not significant, it cannot be concluded that the mouthwash category did not include deceptive statements because beliefs about product attributes could be deeply ingrained from previous exposure to claims, resulting in attitude change resistance to a one-shot advertising exposure. To further investigate belief-fact discrepancies, a series of analyses were conducted.

A two-way analysis of variance table for the means of beliefs and attributes for mouthwash products is included in Appendix C, Table 36. The analysis was significant for beliefs in the control pretest, experimental pretest and posttest. Deception was also investigated using a normative belief technique (Gardner, 1976). Listerine was compared with the combined mean of the three other brands for two beliefs, prevents colds and germ killing power (Figure 3). These two beliefs were used because they were the object of the FTC's investigation of Warner-Lambert, producer of Listerine. The final corrective advertising decree which was issued by the FTC was aimed at reducing the belief that Listerine prevented colds. Although the control group increased its evaluation of Listerine as a preventative of colds more than the experimental group, both groups evaluated Listerine higher on this attribute than the other brands. Because Listerine could not substantiate this claim (FTC vs Warner Lambert, 1975) the FTC's decision was supported. A second comparison of Listerine with the other three brands for the germ killing power belief is also presented in Figure 3. The control group's evaluation of Listerine's germ killing power decreased from the pretest to the posttest, the experimental group's evaluation of this belief increased slightly, but both groups evaluated Listerine higher than the mean of the other three

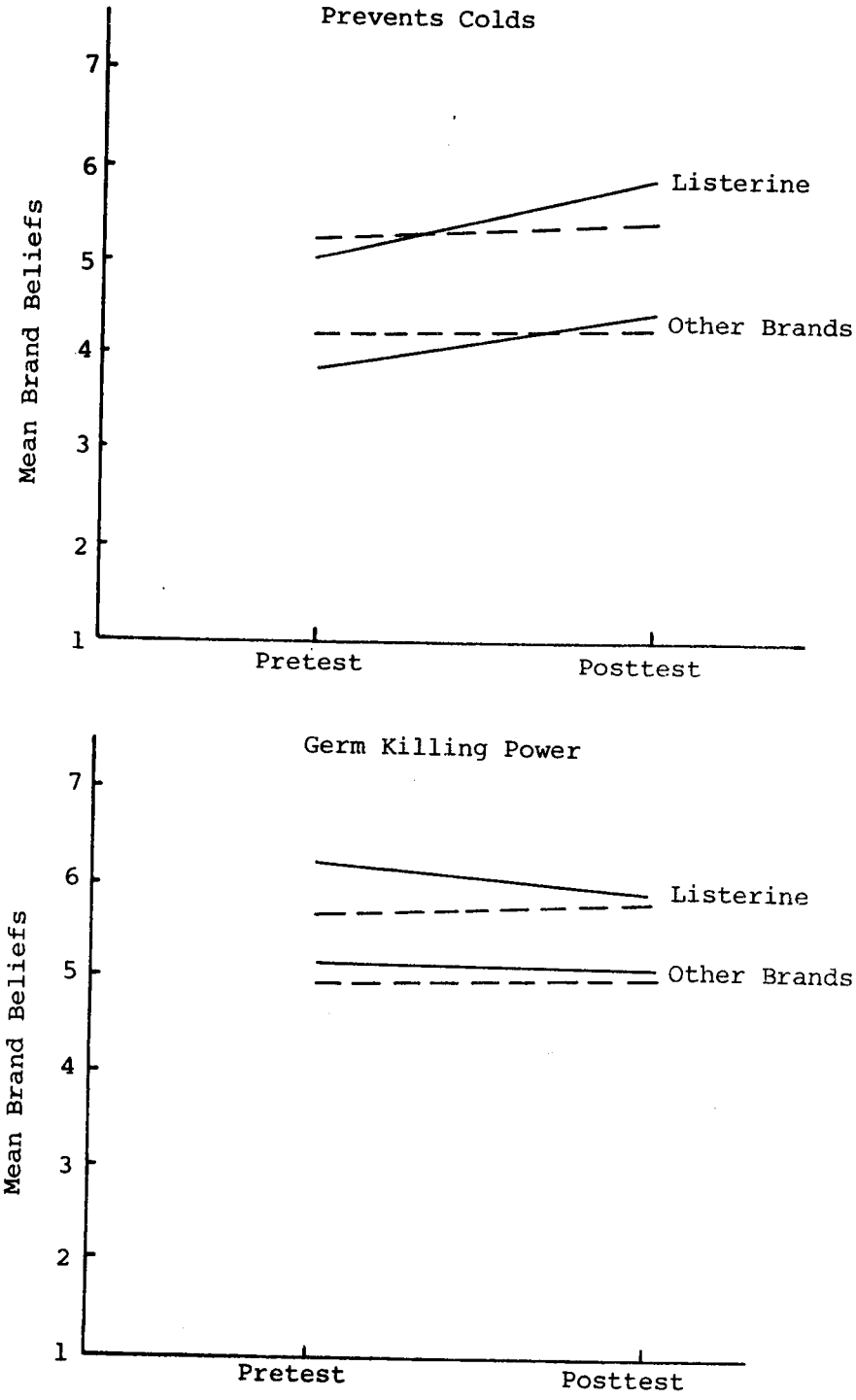


Figure 3. Comparison of Listerine and Other Brands for Selected Beliefs.

— — = Experimental Group; ——— = Control Group

brands on this dimension. The difference between Listerine and the other brands was not as great for this belief as for the cold prevention belief, but if this claim could not be substantiated, a belief-fact discrepancy would exist.

To learn more about the differences between the mouthwash brands, the responses from the experimental posttest group were analyzed further. This group read the advertisements before completing the questionnaire and responded to eight questions related to specific claims for the brands. The claims were evaluated on a seven point scale ranging from Strongly Disagree (-3) to Strongly Agree (+3). A one-way analysis of variance was computed; differences were identified between the means for the eight claims (Appendix C, Table 37). A Tukey post hoc multiple comparison was conducted to analyze the differences. The advertising claims, the means for the claims and the results of the Tukey analysis are presented in Table 8. The means are ordered by size; the vertical line indicates means which are not different. The over-lapping line indicates that the means cannot be distinguished as being significantly different from the other means within the group.

Based on the Tukey analysis, four groups of means were identified, the group with the highest means will be discussed further because it included the claims which the subject agreed with the most. The highest mean, 5.37 was the mean response for the claim, "Scope leaves breath as clean as antiseptics." If this claim could not be substantiated it would be considered deceptive. The second highest mean was, "Listerine kills germs for hours." Forty-three percent of the subjects strongly agreed with this statement, although recent FTC proceedings (FTC vs Warner-Lambert, 1975) have determined that this Listerine claim cannot be substantiated. The

Table 8. Advertising Claims, Mean Response and Tukey Multiple Comparisons for Mouthwash Brands N = 46

Advertising Claim	Mean	Tukey Groups 1	2	3	4
Scope Leaves Breath As Clean As Anticeptics.	5.37				
Listerine Kills Germs for Hours.	4.95				
Listerine Can Play a Major Role in Preventing Colds.	4.65				
Listermint Works Even Better Than Scope.	4.28				
Listermint Should Be Used Every Day For Good Oral Hygiene.	4.15				
You Can Tell Scope Kills Germs By Smelling It.	3.91				
Dentists Believe That It Is Important To Use Lavoris.	3.78				
Gargling With Lavoris Is Beneficial in Preventing Cavities.	3.33				

$$T = \frac{1}{\sqrt{2}} q\ (.95;\ 8,360)$$

$$T\ s(D) = 1.02$$

third highest mean was for the statement "Listerine can play a major role in preventing colds." Subjects strongly agreed with this statement 41% of the time. This finding supported the action of the FTC requiring corrective advertising to reduce the unsubstantiated belief that Listerine could prevent colds.

Although attitude change scores did not identify mouthwash brands which might require substantiation of claims, the post hoc analysis was instrumental in defining beliefs which could alter consumer decision-making. Both the attitude beliefs and the specific advertising claim beliefs indicated that consumers believed claims, either explicit or implied, which have not been substantiated by the producing companies.

Blemish Cream

Attitude gain scores were significant at the .05 level for two brands, Bare Face and Clearasil, when measured by the Fishbein Aact model (Table 9). No differences existed between the two groups when the Fishbein Extended Model was used as the unit of analysis. This indicated that the NB (MC) component concealed the differences in gain scores, rather than accentuated them, for the blemish cream group.

Null hypothesis 1 was rejected for Bare Face and Clearasil. The data analysis did not support rejecting null hypothesis 1 for Ten-O-Six or Sea Breeze, or null hypothesis 2 for any of the brands.

An analysis of belief structure included a two-way analysis of variance for the means of attributes and beliefs for the blemish cream brands (Appendix C, Table 38). The beliefs for the four brands were different at the .001 level for all four brands. The attributes were different for the control posttest and the experimental posttest. Using

Table 9. Attitude Change Gain Scores for Blemish Cream Brands N = 108

VARIABLES	N	MEAN	SD	RANGE	DF	T
Aact Attitude Gain Score (Posttest-Pretest)						
Ten-O-Six-Control	50	- 2.540	59.198	-134 to 206	102	-1.482
Ten-O-Six-Experimental	58	14.069	56.719	-130 to 154		
Sea Breeze-Control	50	- 3.680	58.206	-145 to 176	105	-1.346
Sea Breeze-Experimental	58	11.759	60.826	-157 to 193		
Bare Face-Control	50	- 2.140	56.603	-151 to 134	101	-1.967*
Bare Face-Experimental	58	18.552	51.986	- 95 to 164		
Clearasil-Control	50	- 5.440	67.818	-202 to 182	98	-2.244*
Clearasil-Experimental	58	22.172	58.733	- 73 to 222		
Fishbein Extended Model Gain Score (Posttest-Pretest)						
Ten-O-Six-Control	50	- 3.220	63.459	-161 to 220	102	-1.533
Ten-O-Six-Experimental	58	15.241	61.120	-156 to 146		
Sea Breeze-Control	50	- 5.000	61.251	-127 to 191	106	-1.332
Sea Breeze-Experimental	58	11.414	66.674	-171 to 148		
Bare Face-Control	50	- 1.320	60.167	-171 to 148	102	-1.721
Bare Face-Experimental	58	18.138	56.722	-115 to 176		
Clearasil-Control	50	- 4.620	71.788	-225 to 169	98	-1.831
Clearasil-Experimental	58	19.276	62.440	-100 to 208		

*=$p < .05$.

Gardner's (1976) normative belief technique, the means for two beliefs, cleaning effectiveness and blemish prevention, were investigated. These two beliefs were used because they have been identified by the FTC in litigations (FTC vs Savoy Drug and Chemical Company, 1975).

Sea Breeze was compared with the mean of the other three brands for cleaning effectiveness beliefs (Figure 4). The mean for Sea Breeze was higher than the normative mean for both experimental and control groups. The evaluation was stable for the control groups, but the mean for Sea Breeze and the mean for the other brands was higher for the experimental posttest than the pretest. The second comparison focused on blemish prevention beliefs for Clearasil and the other brands. Blemish prevention beliefs were higher for Clearasil than for the other brands in both the experimental and control groups. The difference between Clearasil and the other brands was accentuated after exposure to the advertising treatment.

A one-way analysis of variance comparing the means of eight advertising claims was significant (Appendix C, Table 39), therefore a Tukey post hoc analysis was used to analyze differences. The Tukey analysis identified four groups of means. Table 10 includes the advertising claims, mean responses and the Tukey Multiple Comparisons for blemish cream products.

The highest mean, 4.93 was the mean for a Clearasil statement, "Clearasil cleans deep within the pores to remove dirt." The second highest mean was not significantly different from the first mean, it was a statement for Sea Breeze, "Soap and water alone cannot remove dirt and

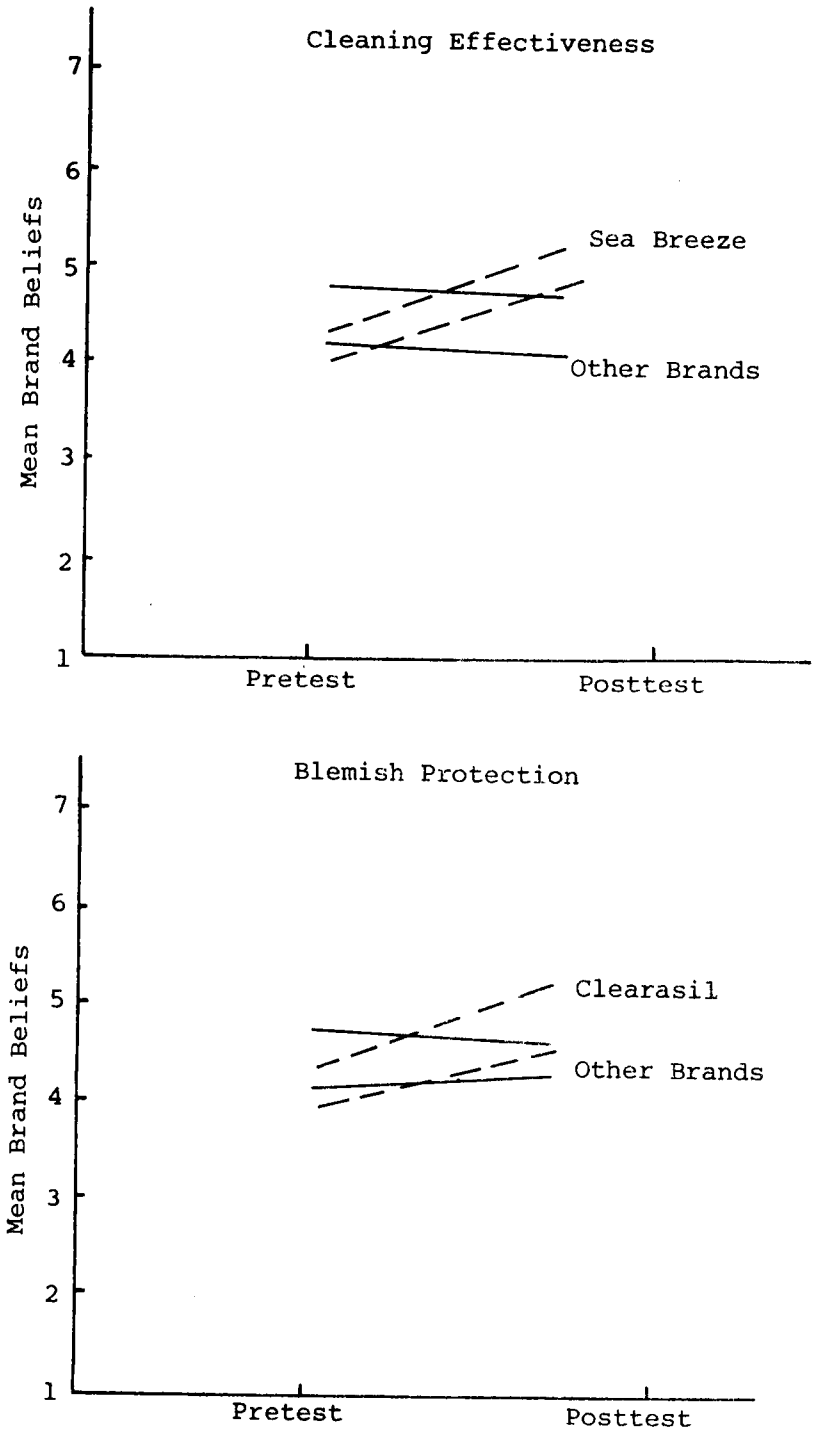


Figure 4. Comparison of Sea Breeze and Clearasil with Other Brands for Selected Beliefs.

— — — = Experimental Group; ———— = Control Group

Table 10. Advertising Claims, Mean Response and Tukey Multiple Comparisons for Blemish Cream Brands
N = 58

Advertising Claim	Mean	Tukey Groups 1	2	3
Clearasil Cleans Deep Within The Pores To Remove Dirt.	4.93	|		
Soap and Water Can Not Remove Dirt and Makeup As Well As Sea Breeze	4.85	|		
Bare Face Acne Skin Cream Will Prevent New Blemishes.	4.55		|	
Ten-O-Six Lotion Has A pH Formula Which Will Normalize All Skin Types	4.52		|	
Ten-O-Six Lotion Improves Circulation And Gets Skin Clean Deep In The Pores.	4.47		|	
Clearasil Will Get Rid Of the Problem Of Oily Skin.	4.45		|	
Most Physicians Recommend Bare Face Acne Cream.	4.05			|
Sea Breeze Is Produced In a Doctor's Laboratory.	4.00			|

$$T = \frac{1}{\sqrt{2}} q\ (.95;\ 8,464)$$

$$T\ s(D) = .273$$

makeup as well as Sea Breeze." If the FTC were evaluating this finding, it is likely that they would require advertising substantiation for these claims to determine if a belief-fact discrepancy exists.

Casual Shoes

The results of the test between groups for attitude gain scores was significant for Famolare and Fanfare brands. The attitude gain score for Famolare was significant at the .01 level when measured by both the Aact and the Extended Model. Posttest-pretest gain scores for Fanfares were significant at the .05 level when measured by Aact and significant at .01 when measured by the Extended Model (Table 11).

In this analysis, the NB (MC) component accentuated the measurement of attitude change. Although the attitude change was significant for only two brands the posttest-pretest gain for control vs experimental groups produced a larger difference when measured by the Extended Model than when measured by the Aact model.

Null hypothesis 1 was rejected for Famolare and Fanfare Aact attitude; there was a difference in attitude change as measured by Aact for these brands, but not for Scholl and Earth Shoes. Null hypothesis 2 was also rejected for Famolare and Fanfare attitude change; there was a difference in attitude change as measured by the Fishbein Extended Model.

An analysis of beliefs and attributes for the casual shoe groups is included in Appendix C, Table 40. The two-way analysis of variance identified differences among beliefs of all four groups. The attributes were significantly different for the experimental pretest and posttest. Two beliefs were selected for Gardner's normative belief analysis, health

Table 11. Attitude Change Gain Scores for Casual Shoe Brands N = 83

VARIABLES	N	MEAN	SD	RANGE	DF	T
Aact Attitude Gain Score (Posttest-Pretest)						
Scholl-Control	41	- 4.220	54.733	-187 to 108	78	-0.511
Scholl-Experimental	42	2.786	69.555	-273 to 244		
Famolare-Control	41	- 9.463	48.483	-162 to 100	79	-2.686*
Famolare-Experimental	42	21.928	57.696	-193 to 150		
Fanfares-Control	41	- 7.098	47.187	-127 to 104	77	-2.369*
Fanfares-Experimental	42	21.143	60.712	-219 to 169		
Earth Shoes-Control	41	-17.098	56.250	-185 to 103	81	-1.223
Earth Shoes-Experimental	42	- 1.310	61.283	-213 to 179		
Fishbein Extended Model Gain Score (Posttest-Pretest)						
Scholl-Control	41	- 6.146	58.605	-187 to 102	79	-0.806
Scholl-Experimental	42	5.381	71.254	-273 to 251		
Famolare-Control	41	-11.073	52.173	-169 to 100	81	-3.074**
Famolare-Experimental	42	25.690	56.723	-172 to 142		
Fanfares-Control	41	- 8.341	52.650	-163 to 107	80	-2.561**
Fanfares-Experimental	42	23.595	60.781	-198 to 175		
Earth Shoes-Control	41	-19.415	60.452	-232 to 95	81	-1.471
Earth Shoes-Experimental	42	0.833	64.898	-206 to 197		

*= $p < .01$.

**=$p < .01$

value for feet and effect on posture, because they represent health claims which have not been substantiated. A comparison of Scholl and Earth Shoes with the other brands is presented in Figure 5. The experimental and control group means for the health value for feet belief were higher for Scholl and Earth Shoes than for the other two brands, although the mean brand belief for the other brands increased greatly for the experimental group posttest. The lines identifying mean brand beliefs for Scholl and Earth Shoes for the experimental group are fairly parallel and horizontal indicating that the subjects did not change their evaluation of the two brands after reading the advertisements.

Scholl and Earth Shoes were also compared with the other two brands for beliefs related to effect on posture. The mean brand belief for Scholl and Earth Shoes was higher than the mean for the other brands. Mean beliefs for all the brands increased after exposure to the advertisements.

A one-way analysis of variance comparing the means of eight advertising claim beliefs was significant (Appendix C, Table 41), therefore a Tukey post hoc analysis was conducted to identify where the means differed. The advertising claims, mean response and Tukey multiple comparisons for casual shoes are included in Table 12. The highest mean was for the statement, "Because your feet must 'hang on' while wearing Scholl's sandals, your legs will become much firmer." The mean for this statement was included in the first group of means identified by the Tukey analysis and it was the only mean which was significantly different from the means in the second Tukey group.

Conclusions for the casual shoe group were difficult to draw. Famolare and Fanfare shoes were the object of significant attitude change

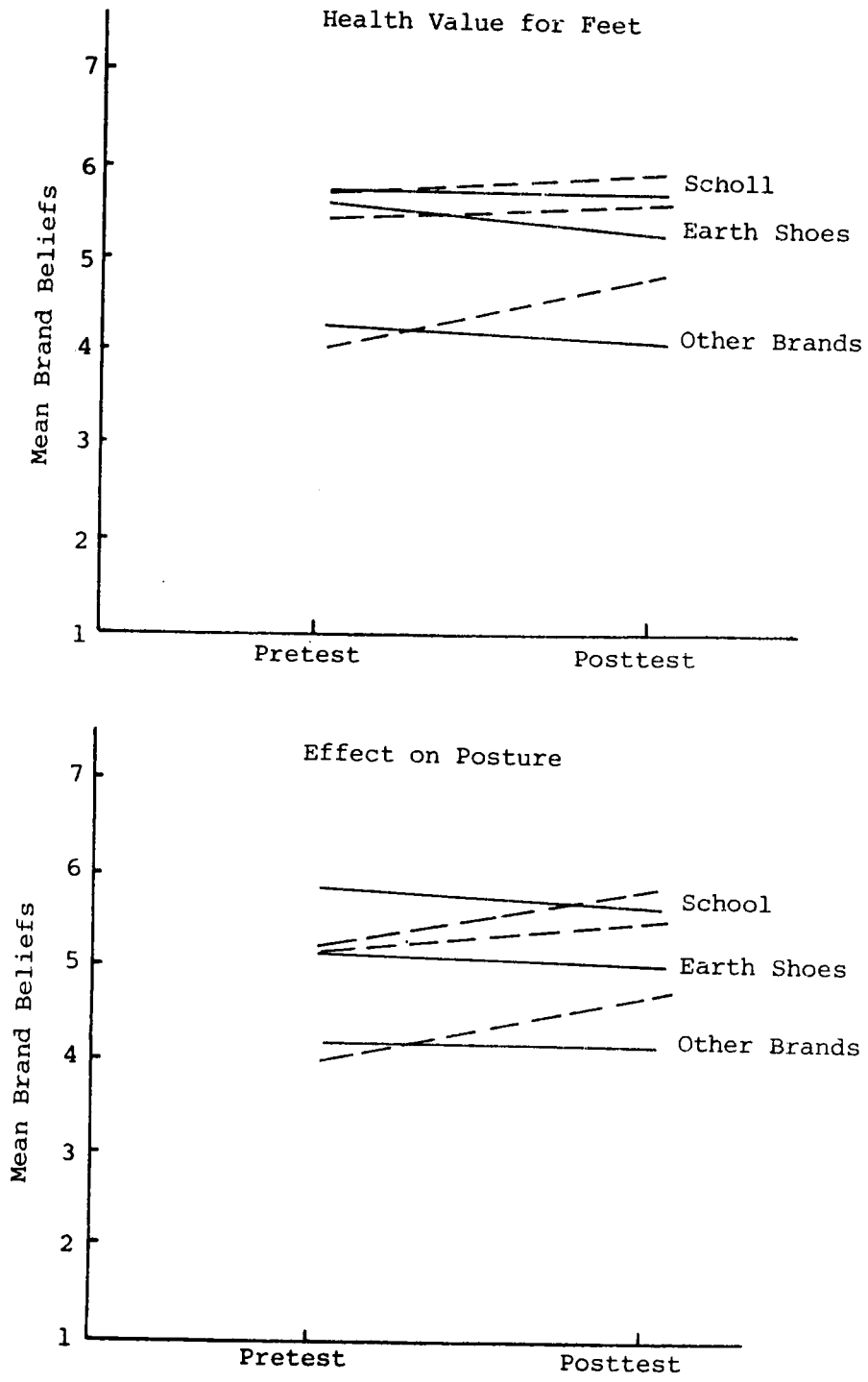


Figure 5. Comparison of Scholl and Earth Shoes with Other Brands for Selected Beliefs.

— — = Experimental Group; ——— = Control Group

Table 12. Advertising Claims, Mean Response and Tukey Multiple Comparisons for Casual Shoe Brands N = 42.

Advertising Claim	Mean	Tukey Groups 1	2
Because Your Feet Must "Hang On" While Wearing Scholl's Sandals, Your Legs Will Become Much Firmer.	5.26		
Earth Shoes Put Your Heel Lower Than Your Toes, This Natural Position Improves Your Posture.	5.17		
Everything Except The Sole Of Fanfare Shoes Is Made of Suede Or Leather.	4.95		
Earth Shoes Are Good For Your Feet Because They Allow You To Walk More Gracefully and Comfortably.	4.91		
Famolare's Ripple Soles Are Designed So That You Will Not Be Tired After A Hard Day of Walking	4.02		
Scholls Shoes Are Manufactured Under the Guidance Of A Physician, Dr. Scholl.	4.19		
Famolare's With The Ripple Sole Make Your Feet, Legs and Back As Comfortable As Possible.	4.02		
The Thick Crepe Bottom Sole On Fanfare Shoes Provides the Best Possible Surface For Running.	4.02		

$T = \frac{1}{\sqrt{2}} q\ (.95;\ 8,328)$ T s(D) = 1.168

after exposure to the advertisements, while consumer beliefs related to Scholl and Earth Shoes were higher than beliefs for Famolare and Fanfare shoes. Perhaps consumer attitudes for Scholl and Earth Shoes are more central; the advertising exposure did not bring about a change in attitude because the beliefs were already firmly established. An implication of these findings is that an evaluation of deceptive advertising requires several types of analyses. Attitude change analysis investigated relatively unstable attitudes which were highly susceptible to new promotional claims, and belief analysis investigated highly evaluated beliefs which have not been substantiated.

Panty Hose

The gain scores were significant for three brands when measured by the Aact model (Table 13). Gain scores for Hanes-Ultra Sheer were significant at the .01 level for both models. Sheer Energy and No Nonsense scores were significant at the .05 level when measured by the Aact, but were not significant when measured by the Fishbein Extended Model. For this product class the Extended Model did not increase the explanation of attitude change; the NB (MC) portion did not play a significant role in defining attitude change. The first null hypothesis was rejected for Sheer Energy, Hanes and No Nonsense. Null hypothesis 2 was rejected for Hanes.

A two-way analysis of variance for means of attributes and beliefs is included in Appendix C, Table 42. Differences were identified for the control pretest and posttest at the .0001 level. Differences significant at the .05 level were found for the experimental pretest. Gardner's normative belief technique (1976) was used to investigate the differences

Table 13. Attitude Change Gain Scores for Panty Hose N = 93

VARIABLES	N	MEAN	SD	RANGE	DF	T
Aact Attitude Gain Score (Posttest-Pretest						
Sheer Energy-Control	50	.560	62.294	-153 to 204	89	-2.053*
Sheer Energy-Experimental	43	27.279	62.846	-120 to 215		
Hanes-Control	50	9.340	64.310	-146 to 214	90	-2.905**
Hanes-Experimental	43	47.349	61.680	- 60 to 225		
L'eggs-Control	50	4.880	73.666	-184 to 266	89	-1.862
L'eggs-Experimental	43	29.651	54.282	- 89 to 196		
No Nonsense-Control	50	5.320	70.754	-184 to 202	91	-1.982*
No Nonsense-Experimental	43	32.326	60.631	- 82 to 230		
Fishbein Extended Model Gain Score (Posttest-Pretest)						
Sheer Energy-Control	50	3.360	63.530	-157 to 212	88	-1.846
Sheer Energy-Experimental	43	28.233	65.835	-108 to 225		
Hanes-Control	50	12.100	63.564	-155 to 210	87	-2.980**
Hanes-Experimental	43	52.674	67.065	- 66 to 251		
L'eggs-Control	50	8.100	74.577	-200 to 253	91	1.787
L'eggs-Experimental	43	33.535	62.679	- 95 to 204		
No Nonsense-Control	50	7.540	73.531	-184 to 210	91	-1.906
No Nonsense-Experimental	43	35.186	66.287	- 82 to 244		

*=p < .05.

**=P < .01.

in beliefs for Hanes and Sheer Energy. Two beliefs were used in this comparison, attractiveness to the opposite sex and feel during wearing (Figure 6). The mean brand belief, attractiveness to the opposite sex, was higher for Hanes than for the other three brands, particularily after exposure to the advertisements. This indicated that substantiation of this claim would be required. The control group's mean brand belief, for feel during wearings, was not higher for Sheer Energy than for other brands.

The advertising belief statements used for the panty hose products are presented in Table 14. A one-way ANOVA of the beliefs resulted in no differences, therefore a Tukey post hoc analysis was not implemented. Results from the one-way analysis are included in Appendix C, Table 43. The statement which was believed the most by the subjects was a statement about Sheer Energy panty hose, "Sheer Energy panty hose is made from a scientific yarn which refreshes leg muscles." The statement with the second highest mean was, "Hanes panty hose are sexier than most panty hose."

It is interesting that the posttest-pretest gain score for Hanes was significant at the .01 level when measured by the Fishbein Extended Model and the belief that Hanes was more attractive to people of the opposite sex was evaluated very positively. This indicated that the NB (MC) component was important in identifying attitude change on this dimension. The Hanes advertisement was the only advertisement which featured a strong normative claim, "Gentlemen prefer Hanes," and Hanes was the only brand which produced a more significant t value for the Extended Model than for the Aact model. This implied that the Extended Model was superior because it was measuring a potential source of deception, the unsubstantiated normative belief claim.

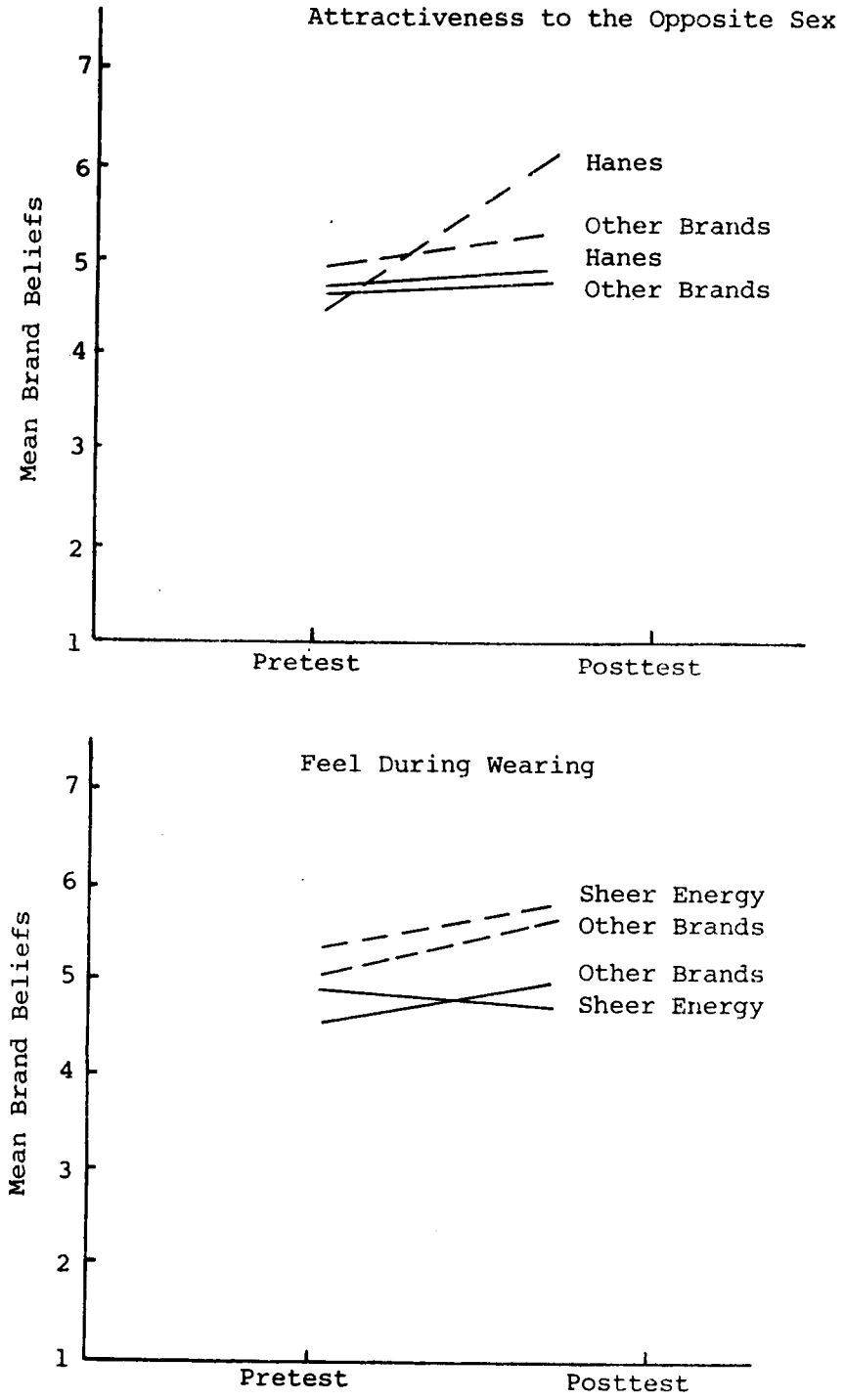


Figure 6. Comparison of Hanes and Sheer Energy with Other Brands for Selected Beliefs.

— — = Experimental Group;———— = Control Group

Table 14. Advertising Claims and Mean Response for Panty Hose Brands N = 50

Advertising Claim	Mean
Sheer Energy Panty Hose Is Made From A Scientific Yarn Which Refreshes Leg Muscles.	4.86
Hanes Panty Hose Are Sexier Than Most Panty Hose.	4.81
L'eggs Panty Hose Is Made So That It Will Never Bag Or Sag.	4.74
L'eggs Panty Hose, Because Of The Unconditional Guarantee Can Be Returned If They Run.	4.58
No Nonsense Panty Hose Is Unconditionally Guaranteed And Can Be Returned For Any Reason.	4.49
Because of Sheer Energy's Leg Massage, Your Legs Will Not Get Tired from Walking A Lot.	4.37
The Cotton-Lined Ventilated Crotch Panel Is a Feature Which Only No Nonsense Offers.	4.16
Men Are More Likely To Notice Women Who Wear Hanes Panty Hose.	4.05

III. ANALYSIS OF THE FISHBEIN EXTENDED MODEL COMPONENTS

Two models have been used throughout this study, the original Fishbein model (Aact) and the Fishbein Extended Model (1967). The purpose of this section is to determine if the addition of the NB (MC) component significantly improves the explanatory value of the Aact model. The performance of the model in analyzing several brand behavioral intentions will be the criterion for evaluation.

The null hypotheses tested in this section were:

H4. The Aact, NB, MC model will not be a significant source in predicting behavioral intentions.

H5. There will be no significant relationship between the Aact, NB and MC components in predicting behavioral intentions (BI).

Mouthwash

Multiple regression analysis was used to analyze the prediction of the dependent variable, BI, from the independent variables, Aact, NB (MC) (Table 15). The full model was significant in explaining behavioral intentions for all four brands. The model was significant at the .0001 level for Scope and Listermint, and the .001 level for Listerine and Lavoris. Beta weights were estimated for the two model components (Table 16). Beta weights are the standardized partial regression coefficients of Y on X. The weights are related to the raw-score regression coefficient (b) in this manner:

$$\text{Beta Weight} = b \frac{\text{Standard Deviation of X}}{\text{Standard Deviation of Y}}$$

The beta weights will vary with the type of attitude being analyzed (Fishbein, 1967). Research by Mathews (1974) and Ryan (1974) reported two

Table 15. Multiple Regression Analysis $BI = [Aact]_{w_0} + [NB(MC)]_{w_1}$ for Mouthwash

Source	DF	SS	MS	F	R-Square
Dependent Variable=Behavioral Intention to Purchase Scope.					
Model	2	51.643	25.822	20.32****	0.309
Aact	1	37.922		29.84****	
NB(MC)	1	13.721		10.80***	
Error	91	115.633	1.271		
Total	93	167.277			
Dependent Variable=Behavioral Intention to Purchase Listerine.					
Model	2	76.598	38.299	8.89***	0.163
Aact	1	76.597		17.77****	
NB(MC)	1	.001		0.00	
Error	91	392.253	4.310		
Total	93	468.851			
Dependent Variable=Behavioral Intention to Purchase Lavoris.					
Model	2	54.743	27.372	7.10***	0.135
Aact	1	53.834		13.97***	
NB(MC)	1	.904		.23	
Error	91	350.661	3.853		
Total	93	405.404			
Dependent Variable= Behavioral Intention to Purchase Listermint.					
Model	2	59.642	29.82	10.76****	0.191
Aact	1	49.904		18.00****	
NB(MC)	1	9.738		3.51	
Error	91	252.315	2.773		
Total	93	311.957			

***=p < .001.

****=P < .0001.

Table 16. Fishbein Extended Model Beta Weights and Multiple Correlation On Behavioral Intention for Mouthwash N = 94

Product	Beta Weights		Multiple Correlation on Behavioral Intention
	Aact	NB(MC)	
Scope	.317	.325	.556
Listerine	.403	.002	.404
Lavoris	.385	-.053	.367
Listermint	.317	.194	.437

sets of beta weights for the same product, Ultra-Brite toothpaste. These studies were summarized in Table 2, page 17. The beta weights for this data align more closely with the findings of Ryan (1974), where the Aact component carried more weight than the NB (MC) component, for all brands except Scope.

Results of the stepwise regression analysis for mouthwash brands are summarized in Table 17. The best one variable model identified for explaining behavioral intentions to buy Scope was the NB (MC), interaction component; the best two term model was the Fishbein Extended Model, Aact + NB MC components. The data for Scope was the only data set which resulted in selection of the Fishbein Extended Model as the best two term model. The best one term model for Listerine and Lavoris was Aact. In half of the cases, one, both, or an interaction of the N, B, MC components, was the one best term model

This supported rejection of the fourth null hypothesis for the mouthwash group. Aact, NB and MC were all significant sources in

Table 17. Stepwise Regression, R^2 Improvement Technique-Mouthwash

Model	DF	SS	F	P < F	R^2
Scope-Best 1 Variable Model					
NB (MC)	1	38.25	27.28	.0001	.229
Scope-Best 2 Variable Model					
NB(MC) + Aact	2	51.64	20.32	.0001	.309
Listerine-Best 1 Variable Model					
Aact	1	76.597	17.97	.0001	.163
Listerine-Best 2 Variable Model					
Aact + NB	2	76.912	8.93	.0003	.164
Lavoris-Best 1 Variable Model					
Aact	1	53.83	14.09	.0003	.133
Lavoris-Best 2 Variable Model					
Aact + MC	2	59.02	7.75	.0008	.146
Listermint-Best 1 Variable Model					
NB	1	59.00	21.46	.0001	.189
Listermint-Best 2 Variable Model					
NB + Aact	2	71.51	13.53	.0001	.229

explaining BI, the importance of the components though, varied from one brand to another brand.

Studies by Fishbein (1967) have also found that the various components may be related, therefore partial correlation coefficients from multivariate analysis of variance were compared for the terms of the Fishbein Extended Model (Appendix C, Table 44). For the mouthwash data, NB and Aact were significantly related but the NB and MC components were not. This information supported rejection of the fifth null hypothesis; there was a significant relationship between two of the terms in the model.

Blemish Cream

The Fishbein Extended Model was significant in explaining behavioral intentions for all four brands of blemish cream (Table 18). The data fit the model at a significance level of .0001 for Clearasil and Sea Breeze, at a significance level of .001 for Bonnie Bell, and at a .01 level for Bare Face. Beta weights for the blemish cream data were based more heavily on the Aact component (Table 19). It might appear from this information that the NB (MC) term was not important in the prediction of behavioral intentions, but a second analysis was needed before this conclusion could be made.

Stepwise regression was used to further investigate the importance of the model components (Table 20). This information clarified the relationship of the model terms. For three brands, the most significant one term model used NB as the independent variable; these three brands are Sea Breeze, Bare Face and Clearasil. The conclusion was then, that

Table 18. Multiple Regression Analysis $BI = [Aact]w_0 + [NB(MC)]w_1$ for Blemish Cream

Source	DF	SS	MS	F	R-Square
Dependent Variable=Behavioral Intention to Purchase Ten-O-Six by Bonnie Bell.					
Model	2	34.570	17.285	7.47***	0.125
Aact	1	34.570		14.93***	
NB(MC)	1	.00		.00	
Error	105	243.096	2.315		
Total	107	277.667			
Dependent Variable=Behavioral Intention to Purchase Sea Breeze.					
Model	2	71.476	35.738	14.28****	0.2138
Aact	1	63.318		26.10****	
NB(MC)	1	6.158		2.46	
Error	105	262.774	2.503		
Total	107	334.250			
Dependent Variable=Behavioral Intention to Purchase Bare Face.					
Model	2	20.360	10.180	5.41**	0.093
Aact	1	13.280		7.06**	
NB(MC)	1	7.080		3.76	
Error	105	197.640	1.882		
Total	107	218.000			
Dependent Variable=Behavioral Intention to Purchase Clearasil.					
Model	2	72.532	36.266	9.81****	0.1574
Aact	1	60.865		16.47****	
NB(MC)	1	11.666		3.16	
Error	105	388.134	3.697		
Total	107	460.667			

**=$p < .01$. ***=$p < .001$. ****=$p < .0001$.

Table 19. Fishbein Extended Model Beta Weights and Multiple Correlation On Behavioral Intention for Blemish Cream N = 108

Product	Beta Weights		Multiple Correlation on Behavioral Intention
	Aact	NB(MC)	
Ten-O-Six	.351	.000	.354
Sea Breeze	.388	.146	.463
Bare Face	.162	.199	.305
Clearasil	.315	.166	.396

Table 20. Stepwise Regression, R^2 Improvement Technique-Blemish Cream

MODEL	DF	SS	F	P <F	R^2
Bonnie Bell-Best 1 Variable Model					
Aact	1	34.57	15.07	.0002	.125
Bonnie Bell-Best 2 Variable Model					
Aact + NB	2	37.74	8.26	.0005	.136
Sea Breeze-Best 1 Variable MOdel					
NB	1	87.383	37.52	.0001	.261
Sea Breeze-Best 2 Variable Model					
NB + Aact	2	99.845	22.36	.0001	.299
Bare Face-Best 1 Variable Model					
NB	1	28.021	15.63	.0001	.128
Bare Face-Best 2 Variable Model					
NB + Aact	2	29.052	8.07	.0005	.133
Clearasil-Best 1 Variable Model					
NB	1	89.422	25.53	.0001	.194
Clearasil-Best 2 Variable Model					
NB + Aact	2	103.008	15.12	.0001	.224

Aact and NB were measuring relatively the same thing, but NB alone (without being used as an interaction term NB (MC)) explained behavioral intentions to purchase Sea Breeze, Bare Face and Clearasil better than any of the other terms including Aact. To further support this conclusion, partial correlation coefficients derived from multivariate analysis of variance were examined (Appendix C, Table 45). The Aact and NB terms were significantly related at the .0001 level.

The data analysis supported rejection of the fourth null hypothesis; for this data, the Fishbein Extended Model was highly significant in predicting behavioral intentions. The fifth null hypothesis was also rejected, there was a significant relationship between Aact and NB components.

Casual Shoes

The Fishbein Extended Model was significant in explaining behavioral intentions for all four brands of casual shoes (Table 21). The model was significant at .001 for Scholl and Earth Shoes, and was significant at the .001 level for the other two brands. Aact was highly significant for all four brands of shoes. Beta weights were closer to being equal for the Aact and NB terms for this product than they were for the other products (Table 22). As would be expected, the two brands which had a significant F value for the NB (MC) component also had larger beta weights for this dimension.

The results of the stepwise regression analysis of the casual shoe data is presented in Table 23. The NB component was identified as the best one variable model for three brands, Famolare, Fanfare and Earth Shoes. The Aact term was the best one variable model for data predicting

Table 21. Multiple Regression Analysis $BI = [Aact]w_0 + [NB(MC)]w_1$ for Casual Shoes

Source	DF	SS	MS	F	R-Square
Dependent Variable=Behavorial Intention to Purchase Scholl					
Model	2	68.601	34.300	13.74****	0.256
Aact	1	50.182		20.11****	
NB(MC)	1	18.419		7.38**	
Error	80	199.640	2.496		
Total	82	268.240			
Dependent Variable=Behavioral Intention to Purchase Famolare					
Model	2	21.722	10.861	5.71**	0.125
Aact	1	15.810		8.31**	
NB(MC)	1	5.912		3.11	
Error	80	152.278	1.903		
Total	83	174.000			
Dependent Variable=Behavioral Intention to Purchase Fanfares					
Model	2	13.037	6.518	5.13**	0.114
Aact	1	9.741		7.67**	
NB(MC)	1	3.295		2.60	
Error	80	101.590	1.270		
Total	82	114.627			
Dependent Variable=Behavioral Intention to Purchase Earth Shoes					
Model	2	88.656	44.328	17.91****	0.309
Aact	1	62.812		25.38****	
NB(MC)	1	25.844		10.44*	
Error	80	197.994	2.474		
Total	82	286.650			

* = $p < .05$. ** = $p < .01$.

*** = $p < .001$. **** = $p < .0001$.

Table 22. Fishbein Extended Model Beta Weights and Multiple Correlation On Behavioral Intention for Casual Shoes N = 83

Product	Beta Weights		Multiple Correlation on Behavioral Intention
	Aact	NB(MC)	
Scholl	.326	.283	.506
Famolare	.264	.184	.354
Fanfare	.259	.172	.338
Earth Shoes	.321	.332	.556

Table 23. Stepwise Regression, R^2 Improvement Technique-Casual Shoes

Model	DF	SS	F	P < F	R^2
Scholl-Best 1 Variable Model					
Aact	1	50.182	18.64	.0001	.187
Scholl-Best 2 Variable Model					
Aact + NB (MC)	2	68.600	13.74	.0001	.256
Famolare-Best 1 Variable Model					
NB	1	19.06	9.97	.0022	.109
Famolare-Best 2 Variable Model					
NB + Aact	2	26.94	7.33	.0012	.155
Fanfare-Best 1 Variable Model					
NB	1	12.41	9.84	.0024	.108
Fanfare-Best 2 Variable Model					
NB + Aact	2	17.59	7.25	.0013	.153
Earth Shoes-Best 1 Variable Model					
NB	1	106.45	47.85	.0001	.371
Earth Shoes-Best 2 Variable MOdel					
NB + Aact	2	112.43	25.81	.0001	.392

behavioral intentions to buy Scholl shoes. The NB component was very important in predicting BI for these brands, therefore null hypothesis four was rejected.

The analysis of the relationship between the model components is presented in Appendix C, Table 46. Aact and NB were significantly related for two brands, Scholl and Earth Shoes, the data therefore supported rejection of null hypothesis five.

Panty Hose

The Fishbein Extended Model was significant at the .0001 level for explaining BI for Sheer Energy and Hanes-Ultra Sheer, significant at .001 for explaining BI for No Nonsense, and significant at .01 for explaining BI for L'eggs (Table 24). Beta weights for the Aact component were larger than for the NB (MC) component (Table 25). The Extended Model was identified as the best two term model for the Sheer Energy and No Nonsense data (Table 26). For both of these brands and Hanes, the Aact term was the best one term model identified by stepwise regression. This information supported rejection of null hypothesis four; the Extended Model was a significant source in explaining behavioral intentions for the panty hose data.

The panty hose data were the only data where Aact and NB were significantly related for only two brands (Appendix C, Table 47). For the No Nonsense data, NB and MC were significantly related, this data set was the only group with this type of relationship between NB and MC. The data supported rejection of the fifth null hypothesis.

Table 24. Multiple Regression Analysis BI = $[Aact]w_0 + [NB(MC)]w_1$ for Panty Hose

Source	DF	SS	MS	F	R-Square
Dependent Variable=Behavioral Intention to Purchase Sheer Energy					
Model	2	53.962	26.981	10.25****	0.185
Aact	1	50.390		19.14****	
NB(MC)	1	3.572		1.36	
Error	90	236.963	2.633		
Total	92	290.925			
Dependent Variable=Behavioral Intention to Purchase Hanes-Ultra Sheer					
Model	2	44.129	22.064	10.00****	0.182
Aact	1	42.568		19.30****	
NB(MC)	1	1.561		.71	
Error	90	198.516	2.206		
Total	92	242.645			
Dependent Variable=Behavioral Intention to Purchase L'eggs Regular Panty Hose					
Model	2	32.394	16.197	6.05**	0.119
Aact	1	25.705		9.60**	
NB(MC)	1	6.689		2.50	
Error	90	240.896	2.677		
Total	92	273.290			
Dependent Variable=Behavioral Intention to Purchase No Nonsense					
Model	2	54.052	27.026	8.30***	0.156
Aact	1	50.150		15.39***	
NB(MC)	1	3.902		1.20	
Error	90	293.195	3.258		
Total	92	347.247			

* = $p < .05$. ** = $p < .01$.

*** = $p < .001$. **** = $p < .0001$.

Table 25. Fishbein Extended Model Beta Weights and Multiple Correlation On Behavioral Intention For Panty Hose N = 92

Product	Beta Weights		Multiple Correlation on Behavioral Intention
	Aact	NB(MC)	
Sheer Energy	.443	-.112	.430
Hanes	.462	-.093	.427
L'eggs	.256	.155	.344
No Nonsense	.347	.114	.395

Table 26. Stepwise Regression, R^2 Improvement Technique-Panty Hose

MODEL	DF	SS	F	P < F	R^2
Sheer Energy-Best 1 Variable Model					
Aact	1	50.39	19.06	.0001	.173
Sheer Energy-Best 2 Variable Model					
Aact + NB (MC)	2	53.96	10.25	.0001	.185
Hanes-Best 1 Variable Model					
Aact	1	42.57	19.36	.0001	.175
Hanes-Best 2 Variable Model					
Aact + MC	2	58.69	14.36	.0001	.242
L'eggs-Best 1 Variable MOdel					
NB	1	31.67	11.93	.0008	.116
L'eggs-Best 2 Variable Model					
NB + Aact	2	45.03	8.88	.0003	.165
No Nonsense-Best 1 Variable Model					
Aact	1	50.15	15.36	.0002	.144
No Nonsense-Best 2 Variable Model					
Aact + NB (MC)	2	54.05	27.03	.0005	.144

IV. CONCLUSIONS AND DISCUSSION

The approach used in this study to define deception has been a two phase procedure. The first stage was to identify attitude change; the second stage was to identify specific belief-fact discrepancies. The first three hypotheses of the study were related to the deceptive advertising, advertising substantiation issue. The fourth and fifth hypotheses were related to analysis of the model components. Within the chapters, conclusions were directed at specific product groups. In this conclusion section, the discussion of the hypotheses will be of a general nature to determine if the model would be useful for FTC decision-making. The hypotheses were stated and analyzed in the null form; this discussion will focus of the alternative hypotheses. The study findings are summarized in Table 27.

H1. There will be a significant change in attitude following exposure to the advertising treatment.

In three of the four product groups, Aact attitude gain scores were significantly different for the control and experimental groups. Differences resulted for Bare Face, Clearasil, Famolare, Fanfares, Sheer Energy, Hanes and No Nonsense brand names.

Tukey post hoc analysis was used to further investigate implied or explicit advertising claim beliefs. Based on the Tukey analysis and the FTC's findings, the claims that "Scope leaves breath cleaner than antiseptics," "Listerine kills germs for hours" and "Listerine can play a major role in preventing colds" were deceptive. Clearasil's claim that "Clearasil cleans deep within the pores," would require substantiation.

Table 27. Summary Table of Findings

Product	N	Was Aact Change Signif-icant?	Was the Extended Model Change Signif-icant?	Do Beliefs Require Substan-tiation?	Beta Weights Aact	Beta Weights NB (MC)	Multiple Correlations on BI
Scope	93	no	no	yes	.317	.325	.556
Listerine	93	no	no	yes	.403	.002	.404
Lavoris	93	no	no	no	.385	-.053	.367
Listermint	93	no	no	no	.317	.194	.437
Bonnie Bell	107	no	no	no	.351	.000	.354
Sea Breeze	107	no	no	yes	.388	.146	.463
Bare Face	107	yes	no	no	.162	.199	.305
Clearasil	107	yes	no	yes	.315	.166	.396
Scholl	83	no	no	yes	.326	.283	.506
Famolare	83	yes	yes	no	.264	.184	.354
Fanfares	83	yes	yes	no	.259	.172	.338
Earth Shoes	83	no	no	yes	.321	.332	.556
Sheer Energy	92	yes	no	yes	.443	-.112	.430
Hanes	92	yes	yes	yes	.462	-.093	.427
L'eggs	92	no	no	no	.256	.155	.344
No Nonsense	92	yes	no	no	.347	.114	.395

The Sheer Energy claim that, "Sheer Energy is made from a scientific yarn which refreshes leg muscles" would also require substantiation. The Hanes' advertising claim, "Hanes panty hose are sexier than most panty hose," was believed by a large number of subjects, this would warrant substantiation by the product manufacturer.

H2. There will be a change in behavioral intentions following exposure to the advertising treatment.

Significant Extended Model Attitude changes resulted for Famolare, Fanfare and Hanes. Although these changes were also identified when Aact was used to measure attitude change, the differences were accentuated in this analysis. Famolare t values, comparing groups increased from -2.686 for Aact attitude change to -3.074 for the Extended Attitude Model, both of these t values were significant at the .01 level. Gain score t values for Fanfares changed from -2.369 (significant at .05) for Aact attitude change to -2.561 (significant at .01) for the Extended Attitude Model. Attitude change measurement was also increased for Hanes; the Aact model resulted in a gain score t of -2.561 while the t for the Extended Model Attitude change was -2.900. Both of these t's were significant at .01.

Interpretation of these findings indicated that when the Extended model was significant it did increase the sensitivity of the Aact measure of attitude. The type of product being evaluated seemed to determine if the Aact model or the Extended Model was warranted. Those products investigated by the FTC which could be influenced by a normative component would be analyzed more sensitively by the Extended Model.

H3. There will be a significant difference between affect and beliefs for the four brands.

Significant differences for attribute affect resulted in the mouthwash control pretest and experimental pretest and posttest, blemish cream experimental pretest and posttest, casual shoe control pretest and posttest and experimental posttest, and panty hose control pretest and posttest, and experimental posttest. Differences in attribute affect were measured at the product level rather than the brand level, therefore significant differences between affect only indicate that the consumers hold different ideas of what attributes are important. Differences in attributes, therefore would contribute to an identification of deceptive advertising, if a comparison of differences for attributes of experimental pretest versus experimental posttest indicated the advertisements have altered the consumer's evaluation of importance. Notice for instance, that if a significant difference was identified in the control groups, it occurred for both the pretest and posttest, but significant differences were identified for only the experimental posttest for casual shoes and panty hose. These two product categories were areas where significant differences for both measures of attitude change were identified.

H4. The Aact, NB and MC model will be significant source in predicting behavioral intentions.

The multiple regression analysis of the Fishbein Extended Model was highly significant for all four product classes, but in most cases the Aact portion had a larger beta weight. This finding supports research by Wilson (1973), Lutz (1973), Weedle and Bettman (1973), Ryan (1973), Harrell and Bennett (1974) and Wilson (1975). These researchers ended their analysis of the model after fitting their data to a specific model.

Stepwise regression was important in this study for identifying the actual contribution of the independent variables in explaining behavioral intentions; this aided in fitting the model to the data, rather than the data to the model. Multicolinearity of terms in the model made it impossible to identify the best fitting model for the data without considering the model terms independently. In many of the cases NB was a better predictor of behavioral intentions than Aact. The best one term and two term model varied within the product class and among the different brands. In general, the MC component was not a strong predictor variable. This study used a general referent for measuring MC (How Likely It Is That Others Who Are Important To You Would Recommend That You Buy _____?). This type of measurement was used by Wilson (1975), Bonfield (1974) and Harrell and Bennett (1974). Other researchers have used several specific referents such as friends, parents, teachers and doctors to measure the MC component (Lutz, 1973; Weedle and Bettman, 1973; Ryan, 1973, 1974). It is possible that multiple referents would have improved the MC component in this study.

H5. There will be no significant relationship between Aact, NB and MC.

Analysis of the partial correlation coefficients revealed that Aact and NB were highly correlated for the four products. The relationship between MC and Aact, and MC and NB was not significant.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

I. SUMMARY

The purpose of this study was to investigate deceptive advertising and advertising substantiation using an attitude change approach. The Fishbein Extended Model was used as the tool for analyzing attitudes and attitude change, and an evaluation of the model terms was included in the study. The conceptual framework for the study was derived from Engel, Kollat and Blackwell's model of consumer behavior (1970). Information and experience, evaluative criteria and attitudes were primary factors which determine how a consumer will process stimuli. These three factors were explicity interrelated in the Fishbein Extended Model. The Fishbein model was used to distinguish which attributes are dominant in the consumer decision-making process, and to investigate how advertisements alter the belief that a product provides the dominant attributes. The research objectives identified for this study were: (1) To use focus group interviews to establish salient evaluative criteria for the products used in the study. (2) To develop a questionnaire which would provide information about how individuals evaluate products, this being an operationalization of the Fishbein model components and (3) To empirically evaluate the model in an exploratory study. These objectives were fulfilled.

Four products were used in this study, mouthwash, blemish cream, casual shoes and panty hose. Focus group interviews were conducted to identify brands to be used in the study, and to determine what evaluative

criteria would be used for the products. The questionnaire for each product group was developed from the evaluative criteria. The questionnaire was pretested and revised before being administered to high school students from four Knoxville City Schools. Three hundred and seventy-five students were included in the total sample. Students were randomly assigned, by classes, to a control or experimental group for one of the four products.

Posttest-pretest gain scores for the control and experimental groups were analyzed for differences. Significant differences in Aact were identified for these brands: Bare Face, Clearasil, Famolare, Fanfares, Sheer Energy, Hanes-Ultra Sheer and No Nonsense. The gain scores for Famolare, Fanfares and Hanes-Ultra Sheer were also significant when the Fishbein Extended Model was used to compute attitude.

The components of the Fishbein Extended model were analyzed using multiple regression to identify the contribution of the independent variables in predicting behavioral intentions. The model was highly significant in explaining behavioral intentions to purchase all four products. Stepwise regression, using an R^2 maximization technique was used to analyze the independent contribution of each term in the model. The results of the stepwise regression led to the conclusion that the best one term and two term model was different for each brand within the product class; therefore no generalization can be made about the best model for all of the data sets. An implication of this finding was that the terms of the Fishbein model were highly significant, but the importance of each term in predicting behavioral intentions must be determined for each brand. It was also very probable that the importance of

the model components will vary from one sample to another; therefore, it is important that researchers use samples which are representative of the total population of purchasers. This study did not fill that criterion.

The method currently used by the FTC for determining deception is a proscriptive method. Because of this post hoc approach to deception, only a few companies can be investigated each year, but the penalties for abuse are extreme. A prescriptive approach to monitoring could reduce the ultimate litigation costs for prosecuting a company, and could also provide the company with an evaluatory tool for screening advertising claims. In essence, deception can only be relevant when viewed in terms of the consumer, and because attitudes are a basis for consumer decision-making, the Fishbein Extended Model could be a valuable tool in determining deceptive advertising.

II. LIMITATIONS

A major limitation of this study was the use of only four products, information about those products cannot be generalized meaningfully to other product groups or brands. The products used in this study, mouth-wash, blemish cream, panty hose and casual shoes were frequently purchased by the subjects used in the sample, high school students, but they could not be considered the major consumer segment.

Student absenteeism was a second major limitation of the study; the high schools provided two class periods for the pretest-posttest, those students who completed a pretest but were absent for the posttest were

eliminated from the study. Absenteeism was particularly large because of end-of-the year school activities such as track meets, group outings etc.

The sample was essentially a convenience sample of students who were available for both the pretest and the posttest of the study. In addition the one-shot exposure to the advertisements would have little effect on deeply ingrained attitudes. Although studies using an experimental design offer more control of factors which could affect internal and external validity, the naturalness of a field study was sacrificed. It is possible that the results were biased because of the experimental design of the study.

The seven point scales used in this study were assumed to be an interval level of measurement. Although this assumption could be debated the empirical basis for the Fishbein model rests on this assumption; therefore the data were analyzed recognizing this assumption as a possible limitation to the statistical legitimacy.

III. RECOMMENDATIONS

Based on the results of this exploratory study, the use of the Fishbein Extended Model is recommended for studying deceptive advertising. The importance of terms in the model vary in predicting behavioral intentions for purchasing different products. Therefore a much wider range of products must be used before any type of generalization can be drawn. It is also likely that the importance of terms in the model will vary for different samples; the sample should therefore represent the total population of consumers for a product as closely as possible.

The motivation to comply (MC) term appeared to be the weakest link in the model, alternate operationalizations of the MC concept are warranted. Use of multiple, rather than a single referent, and scaling the term on the brand level rather than on the product level could help in improving measurement of the term.

Longitudinal studies, using multiple exposures to the advertisements would provide a more realistic approach to measuring deception. This study focused on behavioral intentions, inferring that overt behavior can adequately be predicted by behavioral intentions. Additional research is needed to validate behavioral intentions as an immediate precursor to behavior.

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APPENDICES

APPENDIX A

STATEMENT TO THE SUBJECTS

Hello,

You have all agreed to answer a few questions for me. Please read the directions and the questions very carefully when you complete the questionnaires. I will read through the instructions; please follow along on your questionnaire to make sure you have all the sections. (Researcher then read through all of the instructions and examples.)

It should only take you about 20 minutes to answer all of the questions. If you feel uncertain about how the questionnaire should be answered, raise your hand and I will answer your questions. Please make sure that you respond to all the questions. Thank you so much for your cooperation.

CONSENT FORM — AN ATTITUDE CHANGE APPROACH TO DECEPTIVE ADVERTISING — FORM FRD-4

1. Advertisements have been criticized as being highly misleading. This project is concerned with how students use advertising information. The Federal Trade Commission regulates advertising practices, but little or no input from consumers is included in their decisions. This study proposes to assess advertisements for misleading claims based on how the consumer comprehends and believes the advertisement. As part of the study, the students will be informed about the claims the producers have made which were found by the Federal Trade Commission to be misleading.

2. Very little risk is involved with participation in this study. Some students may change their beliefs about the product because of the advertisements, but every attempt will be made to leave the student with an informed view of the actual product attributes. The advertisements which will be used are taken from magazines frequently read by the students and do not carry any unmoral or subliminal messages.

3. There will be little direct benefit to the students, but because of the information gained from this study and others like it, the Federal Trade Commission will have a broader base of information for regulation of advertising to protect consumers.

4. Any questions regarding procedures involved or results obtained will be answered by the Project Director. If you would like additional information about the study before agreeing to participate, please feel free to call Dr. Charles Noel or Ms. Brenda Witter, Department of Textiles and Clothing, College of Home Economics, University of Tennessee-Knoxville (974-2141).

5. Any participant is free to withdraw consent and to discontinue participation in the project at any time. No coercive practices will be used to guarantee participation. The study will require approximately 20 minutes and will be conducted during one of the regular class periods of the school day.

Student Signature_____

Date_____

Parent or Legal Representative Signature_____

Date_____

THE QUESTIONNAIRE

The questionnaire used for the mouthwash products is included in Appendix A as an example of the format. The questionnaire for each product was developed from the evaluative criteria identified in Chapter III. Only the posttest experimental group received a questionnaire including page 6 of the posttest.

MOUTHWASH

Name or Social Security Number _____ Male_____ Female_____

Thank you for taking part in this study. Your responses to the questions will be *strictly confidential.*

(1-4)_____(Do not fill in this blank, it is for coding purposes only.)

5. What is the occupation of the head of the household in which you live? (Please be very specific)

_____

6. How far did the head of the household in which you live go in school? (Circle your response).

1. Graduate school
2. College degree
3. Some college (or business of vocational school
4. Graduated from high school
5. 10-11 years
6. 7-9 years
7. Less than 7 years

7. How often do you generally purchase mouthwash? (Circle your response)

1. Several times a month
2. Monthly
3. Several times a year
4. Once a year
5. Less frequently than once a year
6. Never

PART I I am interested in your reaction to four brands of mouthwash. Would you estimate how likely it would be that you would purchase the following brands of mouthwash? For example if you are positive that you will buy the brand, circle a +3. If you are positive that you will not buy the brand, circle a -3. Circle any of the numbers -3 to +3 to indicate your feelings about the brand.

		I WILL NOT BUY THIS BRAND			NEUTRAL			I WILL BUY THIS BRAND
8.	Scope	-3	-2	-1	0	+1	+2	+3
9.	Listerine	-3	-2	-1	0	+1	+2	+3
10.	Lavoris	-3	-2	-1	0	+1	+2	+3
11.	Listermint	-3	-2	-1	0	+1	+2	+3

PART II Each of the following questions relates to a pair of terms which are opposite in meaning. If you were to tell someone exactly what types of qualities you wanted in a mouthwash you might use some of the following terms to describe your choice. For example in question #12 if you like mouthwash which tastes neither antiseptic nor sweet, but right in-between you would circle a number *0*. If you like your mouthwash to taste very antiseptic circle a *-3*. Please circle the number closest to your preference.

12.	Antiseptic Taste	-3	-2	-1	0	+1	+2	+3	Sweet Taste
13.	Sweet Smell	-3	-2	-1	0	+1	+2	+3	Medicine Smell
14.	High Price	-3	-2	-1	0	+1	+2	+3	Low Price
15.	Does Not Cover Odors	-3	-2	-1	0	+1	+2	+3	Covers Odors
16.	Does Not Kill Germs	-3	-2	-1	0	+1	+2	+3	Kills Germs
17.	Does Not Prevent Colds	-3	-2	-1	0	+1	+2	+3	Prevents Colds
18.	No Particular Brand Name	-3	-2	-1	0	+1	+2	+3	Particular Brand Name

PART III When purchasing mouthwash some of these characteristics might be very important to you and some might not be very important. Please indicate how important each of these characteristics is to you when

selecting mouthwash. For example if you think that taste is very *unimportant* you will circle *-3*. If you feel that taste is neither very *unimportant* nor very *important* you will circle *0*.

	VERY UNIMPORTANT						VERY IMPORTANT
19. Taste	-3	-2	-1	0	+1	+2	+3
20. Smell	-3	-2	-1	0	+1	+2	+3
21. Price	-3	-2	-1	0	+1	+2	+3
22. Odor Control	-3	-2	-1	0	+1	+2	+3
23. Germ Killing Power	-3	-2	-1	0	+1	+2	+3
24. Cold Prevention	-3	-2	-1	0	+1	+2	+3
25. Brand Name	-3	-2	-1	0	+1	+2	+3

PART IV Different brands may provide the types of characteristics which you are looking for in mouthwash. Would you evaluate how probable it would be that Scope, Listerine, Lavoris and Listermint would give you the type of characteristics for which you are looking. For example under the *TASTE* category you might respond like this:

EXAMPLE:

	EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
Scope	-3	-2	-1	0	+1	(+2)	+3
Listerine	-3	-2	-1	0	+1	(+2)	+3
Lavoris	-3	-2	-1	(0)	+1	+2	+3
Listermine	(-3)	-2	-1	0	+1	+2	+3

if you feel that Scope and Listerine generally provide the type of *TASTE* which you like, that your feelings about Lavoris are neutral and that Listermint does not have the type of *TASTE* which you like. (Please circle your responses for the questions below.)

How likely is it that each of these brands would have the kind of *TASTE* you like?

	EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
26. Scope	-3	-2	-1	0	+1	+2	+3
27. Listerine	-3	-2	-1	0	+1	+2	+3
28. Lavoris	-3	-2	-1	0	+1	+2	+3
29. Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *SMELL* you like?

30. Scope	-3	-2	-1	0	+1	+2	+3
31. Listerine	-3	-2	-1	0	+1	+2	+3
32. Lavoris	-3	-2	-1	0	+1	+2	+3
33. Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *PRICE* you like?

34. Scope	-3	-2	-1	0	+1	+2	+3
35. Listerine	-3	-2	-1	0	+1	+2	+3
36. Lavoris	-3	-2	-1	0	+1	+2	+3
37. Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *ODOR CONTROL* you like?

38. Scope	-3	-2	-1	0	+1	+2	+3
39. Listerine	-3	-2	-1	0	+1	+2	+3
40. Lavoris	-3	-2	-1	0	+1	+2	+3
41. Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *GERM KILLING POWER* you like?

42. Scope	-3	-2	-1	0	+1	+2	+3
43. Listerine	-3	-2	-1	0	+1	+2	+3
44. Lavoris	-3	-2	-1	0	+1	+2	+3
45. Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *COLD PREVENTION POWER* you like?

		EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
46.	Scope	-3	-2	-1	0	+1	+2	+3
47.	Listerine	-3	-2	-1	0	+1	+2	+3
48.	Lavoris	-3	-2	-1	0	+1	+2	+3
49.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would be the *TYPE OF BRAND NAME* you like?

50.	Scope	-3	-2	-1	0	+1	+2	+3
51.	Listerine	-3	-2	-1	0	+1	+2	+3
52.	Lavoris	-3	-2	-1	0	+1	+2	+3
53.	Listermint	-3	-2	-1	0	+1	+2	+3

PART V When making a purchase decision, other people might give you advice. How likely do you think it is that other people who are important to you such as friends, parents, doctors etc. would recommend that you buy these brands of mouthwash?

		EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
54.	Scope	-3	-2	-1	0	+1	+2	+3
55.	Listerine	-3	-2	-1	0	+1	+2	+3
56.	Lavoris	-3	-2	-1	0	+1	+2	+3
57.	Listermint	-3	-2	-1	0	+1	+2	+3

PART VI In general, do you care if your choice of mouthwash is similar to what other people who are important to you would recommend? For example, if you think that it is *unimportant* to take the advice of your friends, parents, doctors, etc. you would circle *-3*. If you think it is *important* to take the advice of these people, then you would circle *+3*.

		DON'T CARE AT ALL						CARE A GREAT DEAL
58.		-3	-2	-1	0	+1	+2	+3

PART VII You have been asked questions about four brands of mouthwash, but when you make a purchase decision you probably include an evaluation of the company which makes the mouthwash. *How would you evaluate the companies which make these four brands of mouthwash?*

		EXTREMELY NEGATIVE			NEUTRAL			EXTREMELY POSITIVE
59.	Scope	-3	-2	-1	0	+1	+2	+3
60.	Listerine	-3	-2	-1	0	+1	+2	+3
61.	Lavoris	-3	-2	-1	0	+1	+2	+3
62.	Listermint	-3	-2	-1	0	+1	+2	+3

MOUTHWASH- POSTTEST

Name or Social Security Number _____

_____(1-4) (Do not fill in this blank, it is for coding purposes only.)

Please circle your responses for the following questions.

5. What is your age?
   1. Under 15
   2. 15
   3. 16
   4. 17
   5. 18
   6. 19
   7. Over 19

6. What is your sex?
   1. Male
   2. Female

7. What is your race?
   1. Caucasian
   2. Black
   3. Other

PART I I am interested in your reaction to four brands of mouthwash. Would you estimate how likely it would be that you would purchase the following brands of mouthwash. For example, if you are positive that you will buy the brand, circle a *+3*. Circle any of the numbers *-3* to *+3* to indicate your feelings about the brand.

		I WILL NOT BUY THIS BRAND			NEUTRAL			I WILL BUY THIS BRAND
8.	Scope	-3	-2	-1	0	+1	+2	+3
9.	Listerine	-3	-2	-1	0	+1	+2	+3
10.	Lavoris	-3	-2	-1	0	+1	+2	+3
11.	Listermint	-3	-2	-1	0	+1	+2	+3

PART II Each of the following questions relates to a pair of terms which are opposite in meaning. If you were to tell someone exactly what types of qualities you wanted in a mouthwash you might use some of the following terms to describe your choice. For example in question #12 if you like mouthwash which tastes neither antiseptic nor sweet, but right in-between you would circle a number *0*. If you like your mouthwash to taste very antiseptic circle a *-3*. Please circle the number closest to your preference.

12.	Antiseptic Taste	-3	-2	-1	0	+1	+2	+3	Sweet Taste
13.	Sweet Smell	-3	-2	-1	0	+1	+2	+3	Medicine Smell
14.	High Price	-3	-2	-1	0	+1	+2	+3	Low Price
15.	Does Not Cover Odors	-3	-2	-1	0	+1	+2	+3	Covers Odors
16.	Does Not Kill Germs	-3	-2	-1	0	+1	+2	+3	Kills Germs
17.	Does Not Prevent Colds	-3	-2	-1	0	+1	+2	+3	Prevents Colds
18.	No Particular Brand Name	-3	-2	-1	0	+1	+2	+3	Particular Brand Name

PART III When purchasing mouthwash some of these characteristics might be very important to you and some might not be very important. Please indicate how important each of these characteristics is to you when selecting mouthwash. For example if you think that taste is very *unimportant* you will circle *-3*. If you feel that taste is neither very *unimportant* nor very *important* you will circle *0*.

		VERY UNIMPORTANT						VERY IMPORTANT
19.	Taste	-3	-2	-1	0	+1	+2	+3
20.	Smell	-3	-2	-1	0	+1	+2	+3
21.	Price	-3	-2	-1	0	+1	+2	+3
22.	Odor Control	-3	-2	-1	0	+1	+2	+3
23.	Germ Killing Power	-3	-2	-1	0	+1	+2	+3
24.	Cold Prevention	-3	-2	-1	0	+1	+2	+3
25.	Brand Name	-3	-2	-1	0	+1	+2	+3

PART IV Different brands may provide the types of characteristics which you are looking for in mouthwash. Would you evaluate how probable it would be that Scope, Listerine, Lavoris and Listermint would give you the type of characteristics for which you are looking. For example under the *TASTE* category you might respond like this:

EXAMPLE:

	EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
Scope	-3	-2	-1	0	+1	(+2)	+3
Listerine	-3	-2	-1	0	+1	(+2)	+3
Lavoris	-3	-2	-1	(0)	+1	+2	+3
Listermint	(-3)	-2	-1	0	+1	+2	+3

if you feel that Scope and Listerine generally provide the type of *TASTE* which you like, that your feelings about Lavoris are neutral and that Listermint does not have the type of *TASTE* which you like. (Please circle your responses for the questions below.)

How likely is it that each of these brands would have the kind of *TASTE* you like?

26.	Scope	-3	-2	-1	0	+1	+2	+3
27.	Listerine	-3	-2	-1	0	+1	+2	+3
28.	Lavoris	-3	-2	-1	0	+1	+2	+3
29.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *SMELL* you like?

30.	Scope	-3	-2	-1	0	+1	+2	+3
31.	Listerine	-3	-2	-1	0	+1	+2	+3
32.	Lavoris	-3	-2	-1	0	+1	+2	+3
33.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *PRICE* you like?

34.	Scope	-3	-2	-1	0	+1	+2	+3
35.	Listerine	-3	-2	-1	0	+1	+2	+3
36.	Lavoris	-3	-2	-1	0	+1	+2	+3
37.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *ODOR CONTROL* you like?

38.	Scope	-3	-2	-1	0	+1	+2	+3
39.	Listerine	-3	-2	-1	0	+1	+2	+3
40.	Lavoris	-3	-2	-1	0	+1	+2	+3
41.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *GERM KILLING POWER* you like?

		EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
42.	Scope	-3	-2	-1	0	+1	+2	+3
43.	Listerine	-3	-2	-1	0	+1	+2	+3
44.	Lavoris	-3	-2	-1	0	+1	+2	+3
45.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would have the kind of *COLD PREVENTION POWER* you like?

46.	Scope	-3	-2	-1	0	+1	+2	+3
47.	Listerine	-3	-2	-1	0	+1	+2	+3
48.	Lavoris	-3	-2	-1	0	+1	+2	+3
49.	Listermint	-3	-2	-1	0	+1	+2	+3

How likely is it that each of these brands would be the *TYPE OF BRAND NAME* you like?

50.	Scope	-3	-2	-1	0	+1	+2	+3
51.	Listerine	-3	-2	-1	0	+1	+2	+3
52.	Lavoris	-3	-2	-1	0	+1	+2	+3
53.	Listermint	-3	-2	-1	0	+1	+2	+3

PART V When making a purchase decision, other people might give you advice. How likely do you think it is that other people who are important to you such as friends, parents, doctors etc. would recommend that you buy these brands of mouthwash?

		EXTREMELY IMPROBABLE						EXTREMELY PROBABLE
54.	Scope	-3	-2	-1	0	+1	+2	+3
55.	Listerine	-3	-2	-1	0	+1	+2	+3
56.	Lavoris	-3	-2	-1	0	+1	+2	+3
57.	Listermint	-3	-2	-1	0	+1	+2	+3

PART IV In general, do you care if your choice of mouthwash is similar to what other people who are important to you would recommend? For example, if you think that it is *unimportant* to take the advice of your friends, parents, doctors, etc. you would circle *-3*. If you think it is *important* to take the advice of these people, then you would circle *+3*.

	DON'T CARE AT ALL						CARE A GREAT DEAL
58.	-3	-2	-1	0	+1	+2	+3

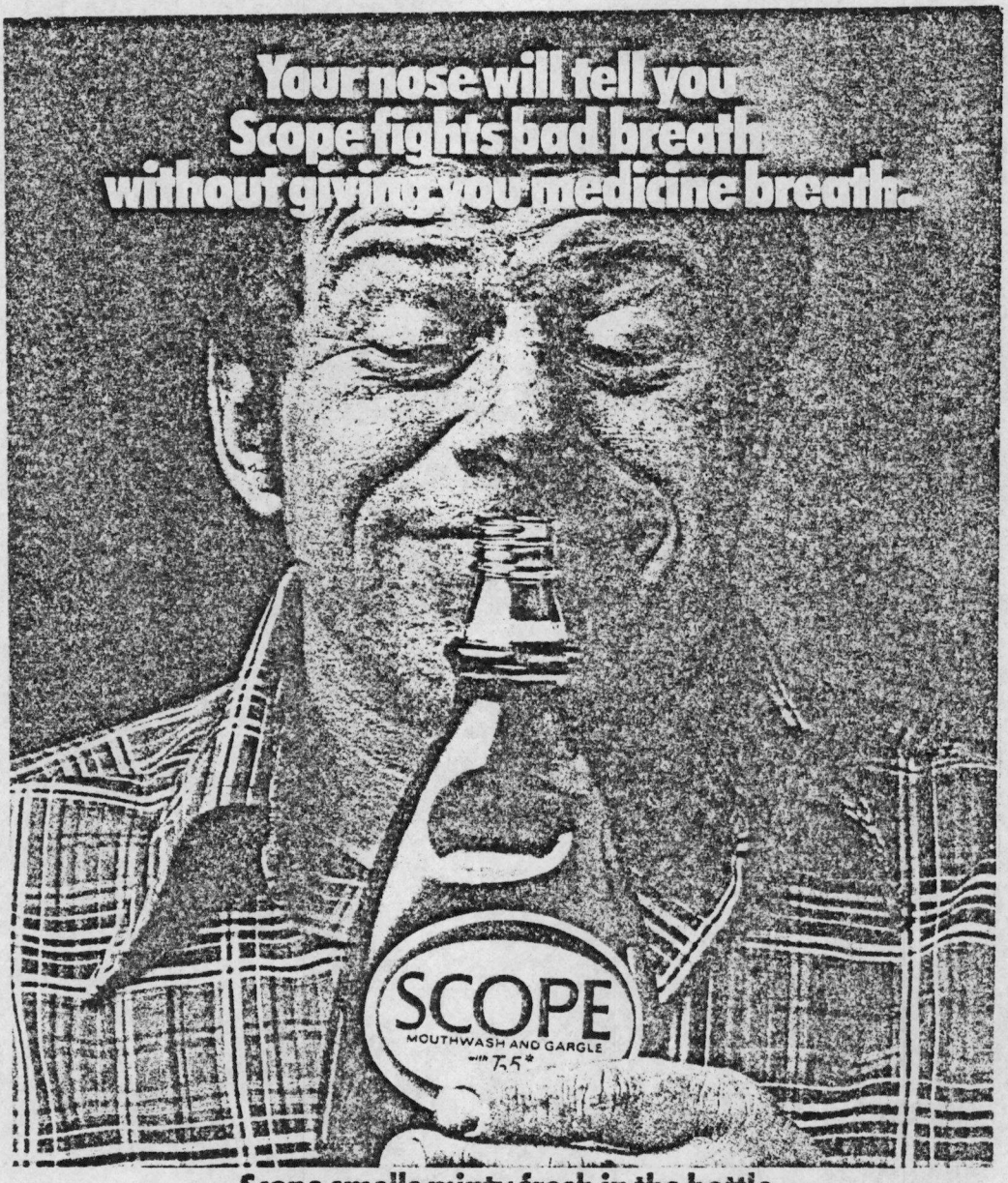
PART VII You have been asked questions about four brands of mouthwash, but when you make a purchase decision you probably include an evaluation of the company which makes the mouthwash. *How would you evaluate the companies which make these four brands of mouthwash?*

		EXTREMELY NEGATIVE			NEUTRAL			EXTREMELY POSITIVE
59.	Scope	-3	-2	-1	0	+1	+2	+3
60.	Listerine	-3	-2	-1	0	+1	+2	+3
61.	Lavoris	-3	-2	-1	0	+1	+2	+3
62.	Listermint	-3	-2	-1	0	+1	+2	+3

PHASE VIII After reading the advertisements attached to this questionnaire, do you agree or disagree with the following statements?

	STRONGLY DISAGREE			NEUTRAL			STRONGLY AGREE
63. Scope leaves breath as clean as antiseptics.	-3	-2	-1	0	+1	+2	+3
64. You can tell Scope kills germs by smelling it.	-3	-2	-1	0	+1	+2	+3
65. Listerine can play a major role in preventing colds.	-3	-2	-1	0	+1	+2	+3
66. Listerine kills germs for hours.	-3	-2	-1	0	+1	+2	+3
67. Dentists believe that it is important to use Lavoris.	-3	-2	-1	0	+1	+2	+3
68. Gargling with Lavoris is beneficial in preventing cavities.	-3	-2	-1	0	+1	+2	+3
69. Listermint should be used everyday for good oral hygine.	-3	-2	-1	0	+1	+2	+3
70. Listermint works even better than Scope.	-3	-2	-1	0	+1	+2	+3

APPENDIX B



Scope smells minty fresh in the bottle, so it smells minty fresh on your breath.

Antiseptic mouthwash may smell like medicine. So as it fights bad breath, it leaves your breath smelling like medicine.

Scope* smells minty fresh. So as it fights bad breath, it leaves your breath smelling minty fresh.

Smell your mouthwash. And then smell Scope. Since Scope gets breath clean like antiseptics, your own nose will tell you it makes sense to use Scope.

© 1975 The Procter & Gamble Company


TWO-FISTED
A real fighter. Kills germs by millions.
So strong it keeps
breath fresh for
hours... and
hours.
LISTERINE
ANTISEPTIC
Kills Germs By Millions
On Contact
Bad Breath, Colds and
Resultant Sore Throats
Kills Germs On

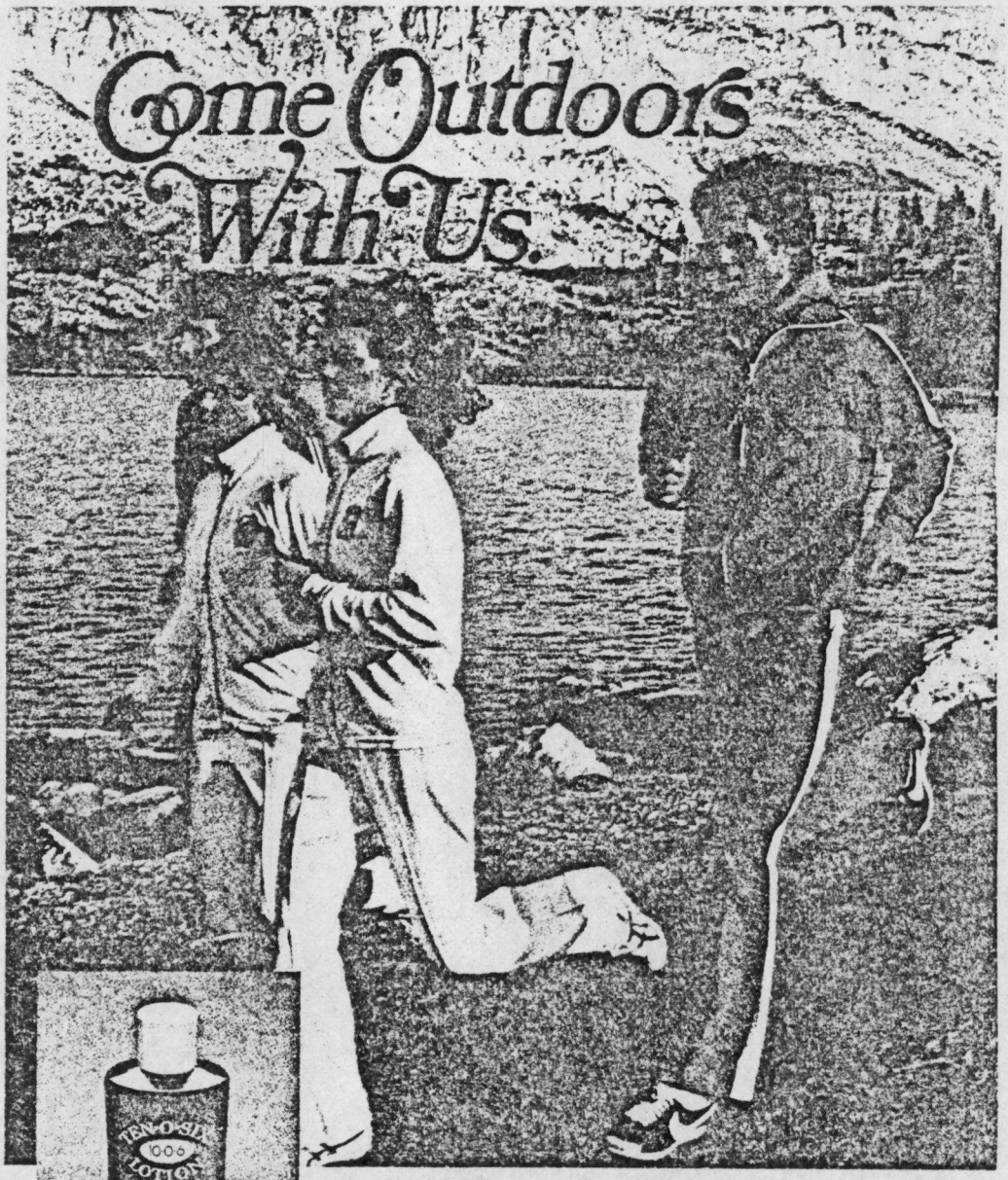
"My mother always said, 'if you want to marry a dentist, you better use Lavoris.'"



She figured dentists give Lavoris® to their patients... dentists give it to themselves. So instead of using some mild minty stuff...or something that smells like a bottle of medicine...I used Lavoris. And you know what? Mother was right. Take it from a dentist's wife: for really clean, really fresh mouth and breath...

...more dentists (including my husband) use refreshing Lavoris than any other mouthwash.


Try New Listermint
Tastes as good as Scope.
Works even better
a fresh minty taste!
Listermint
MOUTHWASH AND GARGLE
Listermint
FOR CLEAN BREATH AND DAILY ORAL CARE



At Bonne Bell, we believe in outdoor exercise. Especially running, because it helps give you the glow of good health. But to keep your skin in condition, you need more than exercise. You need Ten-O-Six Lotion, the remarkable cleanser that revs up circulation and gets skin deep-down clean. Yet never leaves you feeling dry or taut. Because Ten-O-Six has the proper PH to help normalize all skin types. So follow Bonne Bell's honest beauty plan: Exercise at least once a day. And Ten-O-Six at least twice a day.

Dear Sea Breeze,

When a product is as good as yours, I feel it deserves a compliment. And here is mine. I love it.
Michele Rowe, Flushing, Michigan

I love your Sea Breeze product. It has really helped my complexion beautifully.
Betty Burak, Detroit, Michigan

I wish to thank you for making the greatest product in the world for *my skin!* Sea Breeze is dynamite!
JoAnne Piccolo, Miami Beach, Florida



I thank you, my mother thanks you, and my face thanks you.
Leslie Hitchings, Howell, New Jersey

WOW!
Carole Kuchar, Pittsburgh, Pa.

For years I have tried more expensive products and none of them worked as well as Sea Breeze.
Pat McGuire, Astoria, New York

Soap and water alone can't remove all the dirt and make-up.
So every time you wash, wash again with a Sea Breeze moistened cotton pad.
Once you get to know us, you'll love us.
Sea Breeze Laboratories, Inc.
Pittsburgh, Pa. 15224


STO
NOW...PUT THE BRAKES ON BREAKOUTS WITH NEW BARE FACE DISAPPEARING ACNE FOAM!
BARE FACE
ACNE
SKIN
MEDICINE
DISAPPEARING
FOAM
Bare Face Acne Skin Medicine was born
you were pretty helpless against all
those blemishes that kept popping up
just when you were starting to roll. Now
Bare Face helps put you in control of
your complexion. Because it not only
spot treats each blemish, but used every
day, it also cleanses and treats your
whole face to help prevent new ones.
And Bare Face is so different—so
convenient to use because it's a
disappearing foam. Not a drippy liquid,
greasy cream or messy pad.
So take control of your complexion
with new Bare Face. Because bare is
beautiful!
If you have questions regarding the use or effectiveness of Bare Face, ask your physician. Most physicians
have been provided with complete product information.
©1975 PHARMACRAFT CONSUMER PRODUCTS
A PRODUCT OF PENNWALT CORPORATION

After I wash my face, I clean it.



You see, I've always had trouble with oily patches on my skin. Even after washing with ordinary soap and water, I wasn't sure if my face was really clean. Then I started using Clearasil® Cleanser – the deep-cleansing lotion. When I saw how much extra oil and dirt came off on the cotton ball, I knew my face had never really been that clean before.

That's because Clearasil Cleanser cleans deep – deep down to pore openings. Lifts up and dissolves away skin oil and trapped dirt. It really helps get rid of the problem of oil and trapped dirt, and helps keep my complexion looking cleaner and clearer.

If you have trouble with oily patches on your skin, do what I do. Twice a day, after you wash your face, *clean* it – with Clearasil Cleanser.

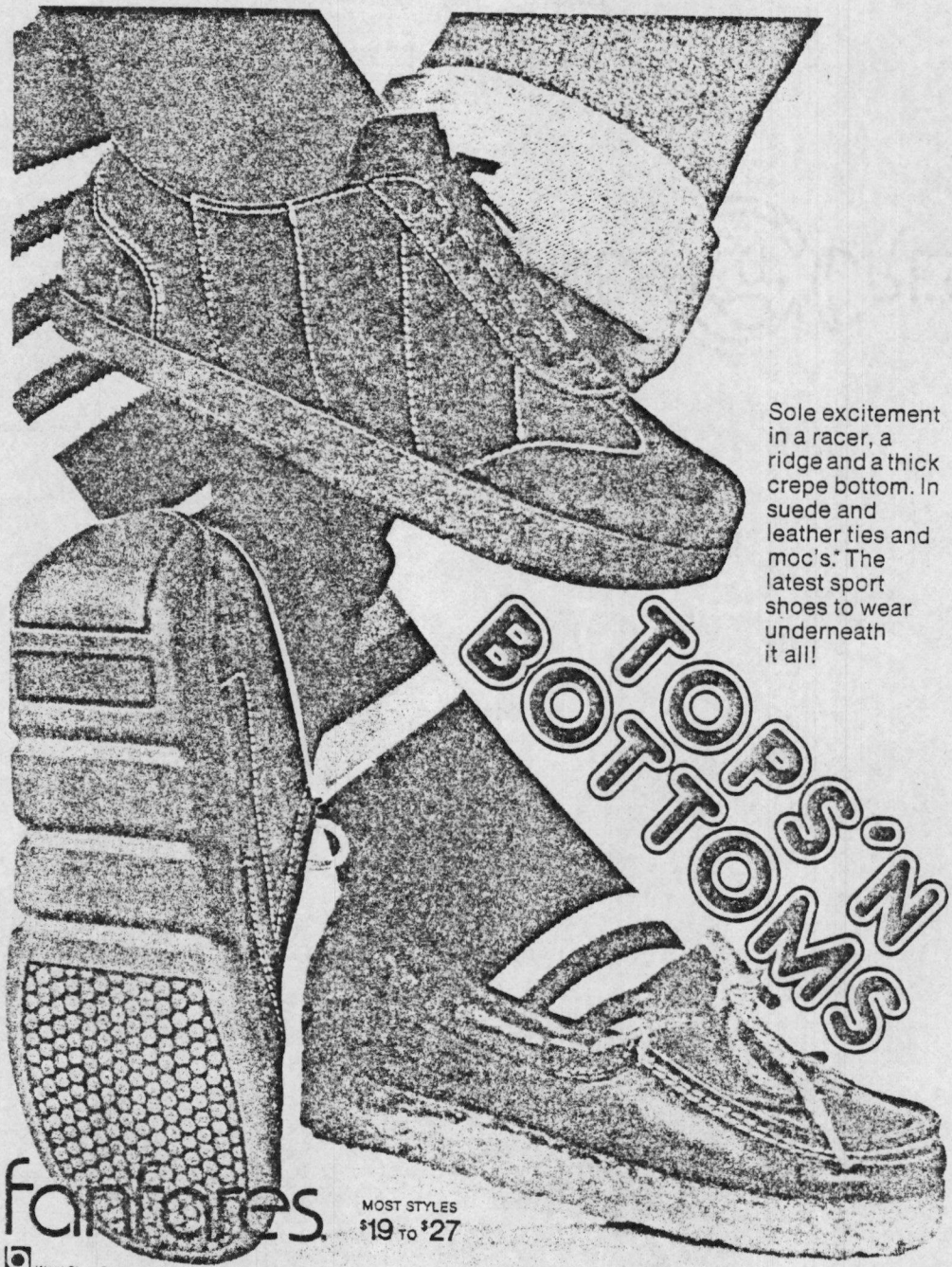
It really works.

Clearasil Cleanser
The deep-cleansing lotion.




Lookin' Foxy.
Feelin' Fantastic.
Kick on a pair of Scholl
Exercise Sandals.
The look's right. In light or
new dark-toned natural woods.
Both in so many strap colors
you can wear them with
everything.
And the feel's fine. Pure
comfort all day long from the
soft, foam-padded straps. And
cool, carved European
beechwood soles.
What you don't feel is the
toe grip at work. It makes your
toes "hang out." Which
exercises your legs to help firm
and tone them while you walk.
So c'mon Foxy, feel
fantastic. With Scholl Exercise
Sandals.
Also in Blue, White and Chocolate.
9088/54
"Better than barefoot"


Starting at the bottom
has put Famolare on top.
FAMOLARE



Sole excitement in a racer, a ridge and a thick crepe bottom. In suede and leather ties and moc's.* The latest sport shoes to wear underneath it all!

fantares.

MOST STYLES
$19 TO $27

Wonl Shoe Company, Saint Louis, Missouri • a member of Brown Group, Inc.

LAZARUS, COLUMBUS/RIKE'S, DAYTON/SHILLITO'S, CINCINNATI/PALAIS ROYAL, HOUSTON/FASHION BAR, DENVER/ALBERTS, DETROIT/STEIGER'S OF SPRINGFIELD/CARSON, PIRIE, SCOTT & CO., CHICAGO/STEINBACH'S, NEW JERSEY/MACY'S, CALIFORNIA, KANSAS, MISSOURI, NEW YORK/DONALDSONS, MINNEAPOLIS-ST. PAUL AND OTHER LEADING STORES.

*Refers to uppers only.

Please be patient. We're making our shoes as fast as we can.



Who ever heard of standing in line for a pair of shoes?

We're amazed. Really amazed. At first people called our EARTH* brand negative heel shoes strange and ugly. And now they're standing in line to get them.

And while the ends of the lines are waiting to get into our stores, the beginnings of the lines are buying up all of our shoes.

Of course we always knew Earth® shoes were a great invention. And we knew people would love them. But we had no idea the word would spread so fast.

It all started with Anne Kalso.

It started in Denmark 17 years ago, when Anne Kalsø had the idea for the negative heel shoe. A shoe with the heel lower than the toe.

The concept was that these shoes would allow you to walk naturally. Like when you walk barefoot in sand and your heel sinks down lower than your toes. Anne was convinced that this is the natural way the body is designed to walk. And that this shoe would work in harmony with your entire body.

So she worked for 10 years refining every delicate adjustment. Until finally they were perfected.

The shoe that works with your body.

And the result was the Earth shoe. The shoe that's not just for your feet.

Not only is the heel lower than the toe, but the entire sole is molded in a very special way. This allows you to walk in a gentle rolling motion. And to walk easily and comfortably on the hard, jarring cement of our cities.

Even the arch of the Earth shoe is different, and the toes are wide to keep your toes from being cramped or squashed.

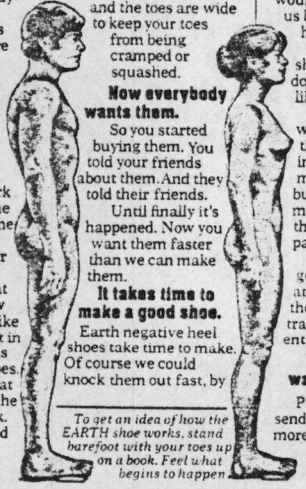
Now everybody wants them.

So you started buying them. You told your friends about them. And they told their friends.

Until finally it's happened. Now you want them faster than we can make them.

It takes time to make a good shoe.

Earth negative heel shoes take time to make. Of course we could knock them out fast, by leaving out a lot of important features. Or by not paying attention to quality. But then it wouldn't be the Earth brand shoe.



To get an idea of how the EARTH shoe works, stand barefoot with your toes up on a book. Feel what begins to happen.

Lowering the heel isn't enough.

We knew we had a good idea. And we knew others would try to imitate us by making negative heel shoes too.

But just because a shoe looks like ours doesn't mean it works like ours.

The 10 years that went into perfecting the Earth shoe are very important. We have many, many features built into our shoes to make them work. And that is why they are patented.

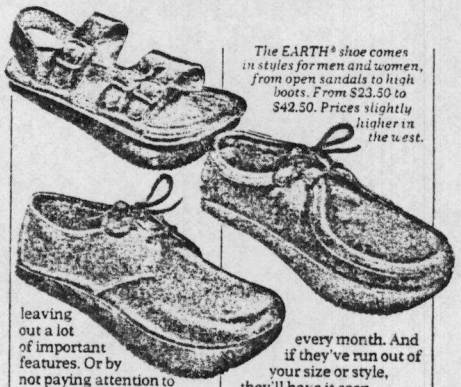
So to be sure you're getting the Earth negative heel shoe, look on the sole for our Earth trademark, and U.S. patent number 3305947.

They're worth waiting for.

Please be patient. We're sending out more and more shoes to our stores every month. And if they've run out of your size or style, they'll have it soon.

And when you do try them, you'll see, perhaps for the first time in your life, what it's like to walk more gracefully, naturally and comfortably.

And, believe us, that's worth waiting for.



The EARTH® shoe comes in styles for men and women, from open sandals to high boots. From $23.50 to $42.50. Prices slightly higher in the west.

KALSØ earth shoe

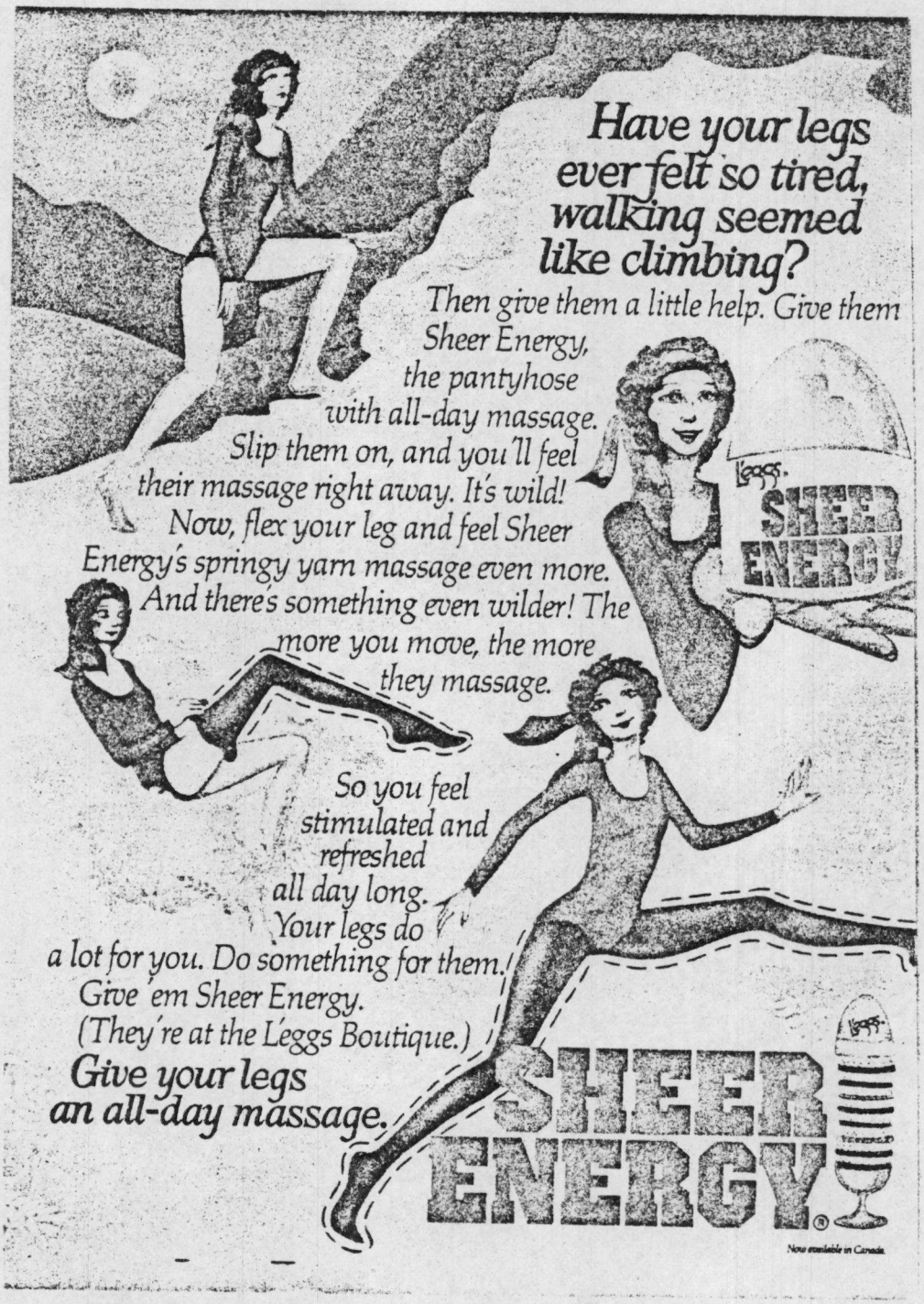
EARTH is the registered trademark of Kalsø Systemet, Inc. for its negative heel shoes and other products.



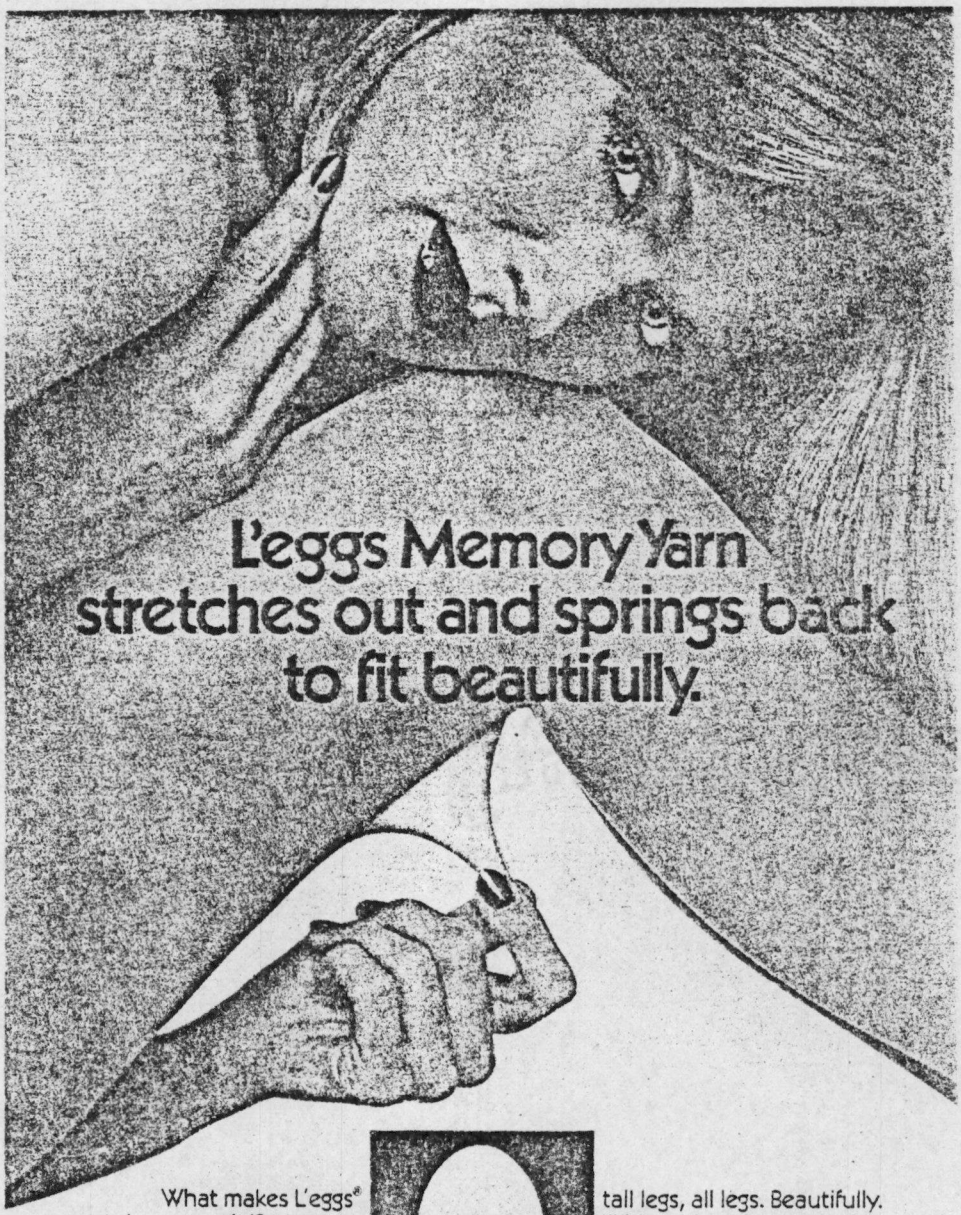
Anne Kalso.
Inventor of the EARTH® negative heel shoe.

Our shoes are sold at stores that sell only the EARTH® shoe. For a list of these stores please see the facing page.

©1974 Kalsø Systemet, Inc.


Have your legs ever felt so tired, walking seemed like climbing?
Then give them a little help. Give them Sheer Energy, the pantyhose with all-day massage. Slip them on, and you'll feel their massage right away. It's wild! Now, flex your leg and feel Sheer Energy's springy yarn massage even more. And there's something even wilder! The more you move, the more they massage.
So you feel stimulated and refreshed all day long. Your legs do a lot for you. Do something for them. Give 'em Sheer Energy. (They're at the Leggs Boutique.)
Give your legs an all-day massage.
Leggs.
SHEER ENERGY
SHEER ENERGY®
Now available in Canada.


Hanes
Gentlemen prefer Hanes
Sensuously smooth. Luxuriously sheer. Unmistakably Hanes.



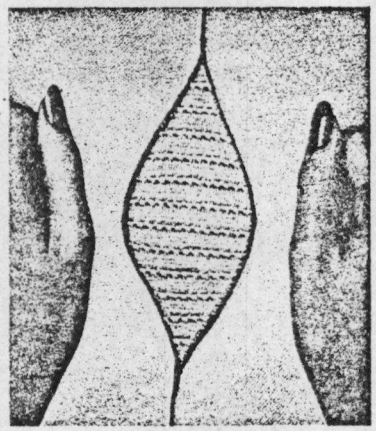
What makes L'eggs® pantyhose special? Memory Yarn.™ Memory Yarn hugs your ankles. Memory Yarn holds your knees. Memory Yarn stretches out and springs back to fit thin legs, plump legs, tall legs, all legs. Beautifully. Without bagging or sagging.

Remember to buy L'eggs® pantyhose with Memory Yarn at the L'eggs Boutique, in Average or Queensize.

Also available in Canada.

Some No nonsense® news.

Introducing the cotton-lined ventilated crotch panel.



The best fashion news today is one of the oldest fabrics in the world. Cotton. Because it's natural. Because it's soft. Because it's cool on your skin.

That's why the ventilated crotch panel in every pair of panty hose No nonsense® makes is now lined with cotton. Because it's natural, soft and cool. You still get No nonsense fit, with new No nonsense comfort.

You'll look just as good. And you'll feel even better.

No nonsense fit and No nonsense comfort. That's No nonsense fashion. © 1977 No Nonsense Fashions Inc.



No nonsense fit. No nonsense comfort. No nonsense fashion.

KR

Another fine product of Kayser Roth

APPENDIX C

Table 28. Summary of Demographic Information for Control and Experimental Groups for Mouthwash

Variables	Experimental No.	Experimental %	Control No.	Control %
Age (years)				
Under 15	0	0	1	2
15	6	13	6	12.5
16	27	58.7	22	45.8
17	10	21.7	12	25
18	3	6.5	7	14.5
19	0	0	0	0
Over 19	0	0	0	0
Parent's Occupation				
1 (Highest)	3	6.5	3	6.3
2	4	8.7	3	6.3
3	13	28.3	4	8.3
4	9	19.6	19	39.6
5	12	26.1	11	22.9
6	4	8.7	7	14.6
7	1	2.2	1	2.1
Parent's Education				
Graduate School	1	2.2	3	6.3
College Degree	8	17.4	4	8.3
Some College	11	23.9	3	6.3
Graduated from High School	18	39.1	32	66.7
10-11 years	6	13.0	3	6.3
7-9 years	2	4.3	0	0
Less than 7 years	0	0	3	6.3
Sex				
Male	25	54.3	23	47.9
Female	21	45.7	25	52.1
Race				
Caucasian	45	97.8	35	72.9
Black	1	2.2	10	20.8
Other	0	0	3	6.3
	N = 46		N = 48	

Table 29. Summary of Demographic Information for Control and Experimental Groups for Blemish Cream

Variables	Experimental No.	Experimental %	Control No.	Control %
Age (years)				
Under 15	1	1.7	1	2
15	11	19	5	10
16	13	22.4	18	36
17	24	41.4	17	34
18	8	13.8	8	16
19	0	0	1	2
Over 19	1	1.7	0	0
Parent's Occupation				
1 (Highest)	8	13.8	3	6
2	8	13.8	2	4
3	13	22.4	14	28
4	11	19	11	22
5	8	13.8	9	18
6	4	6.9	9	18
7	6	10.3	2	4
Parent's Education				
Graduate School	9	15.5	3	6
College Degree	19	32.7	6	12
Some College	5	8.6	12	24
Graduated from High School	16	27.6	10	20
10-11 years	5	8.6	13	26
7-9 years	3	5.2	6	12
Less than 7 years	1	1.7	0	0
Sex				
Male	55	94.8	46	92
Female	3	5.2	4	8
Race				
Caucasian	54	93.1	48	96
Black	1	1.7	2	4
Other	3	5.2	0	0
	N = 58		N = 50	

Table 30. Summary of Demographic Information for Control and Experimental Groups for Casual Shoes

Variables	Experimental No.	Experimental %	Control No.	Control %
Age (years)				
Under 15	0	0	0	0
15	2	4.8	4	9.8
16	9	21.4	31	75.6
17	23	54.8	5	12.2
18	8	19	1	2.4
19	0	0	0	0
Over 19	0	0	0	0
Parent's Occupation				
1 (Highest)	4	9.5	12	29.3
2	12	28.6	6	14.6
3	8	19	4	9.8
4	2	4.8	4	9.8
5	7	16.7	12	29.3
6	3	7.1	0	0
7	6	14.3	3	7.3
Parent's Education				
Graduate School	5	11.9	8	19.5
College Degree	12	28.6	7	17.1
Some College	5	11.9	7	17.1
Graduated from High School	8	19	13	31.7
10-11 years	5	11.9	3	7.3
7-9 years	6	14.3	2	4.9
Less than 7 years	1	2.4	1	2.4
Sex				
Male	0	0	0	0
Female	42	100	41	100
Race				
Caucasian	37	88.1	36	87.8
Black	3	7.1	5	12.2
Other	2	4.8	0	0
	N = 42		N = 41	

Table 31. Summary of Demographic Information for Control and Experimental Groups for Panty Hose

Variables	Experimental No.	Experimental %	Control No.	Control %
Age (years)				
Under 15	0	0	0	0
15	7	16.3	8	16
16	14	32.6	24	48
17	15	34.9	14	28
18	7	16.3	4	8
19	0	0	0	0
Over 19	0	0	0	0
Parent's Occupation				
1 (Highest)	4	9.3	12	24
2	6	14	4	8
3	9	20.9	6	12
4	8	18.6	9	18
5	9	20.9	10	20
6	5	11.6	4	8
7	2	4.7	5	10
Parent's Education				
Graduate School	5	11.6	6	12
College Degree	11	25.6	12	24
Some College	8	18.6	11	22
Graduated from High School	15	34.9	15	30
10-11 years	2	4.7	5	10
7-9 years	1	2.3	1	2
Less than 7 years	1	2.3	0	0
Sex				
Male	0	0	0	0
Female	43	100	50	100
Race				
Caucasian	30	69.8	45	90
Black	13	30.2	3	6
Other	0	0	2	4
	N = 43		N = 50	

Table 32. Correlation Coefficients for Social Position and Attitude Variables for Mouthwash N = 94

Variable	Social Position Correlation Coefficient	P = |R|
Aact Attitude Gain Score (Posttest-Pretest)		
Scope	-0.079	.447
Listerine	-0.115	.271
Lavoris	-0.059	.575
Listermint	0.016	.881
Fishbein Extended Model Gain Score (Posttest-Pretest)		
Scope	-0.051	.625
Listerine	-0.063	.547
Lavoris	-0.044	.677
Listermint	0.048	.644
Aact Attitude		
Scope	0.006	.957
Listerine	0.074	.478
Lavoris	-0.056	.590
Listermint	-0.025	.890
Normative Belief		
Scope	0.041	.696
Listerine	0.269	.797
Lavoris	0.087	.404
Listermint	-0.004	.969
Motivation to Comply	0.053	.612

Table 33. Correlation Coefficients for Social Position and Attitude Variables for Blemish Cream N = 108

Variables	Social Position Correlation Coefficient	P = |R|
Aact Attitude Gain Score (Posttest-Pretest)		
Ten-O-Six	0.041	0.677
Sea Breeze	0.094	0.335
Bare Face	0.064	0.510
Clearasil	0.052	0.543
Fishbein Extended Model Gain Score (Posttest-Pretest)		
Ten-O-Six	0.033	0.738
Sea Breeze	0.080	0.410
Bare Face	0.049	0.618
Clearasil	0.067	0.490
Aact Attitude		
Ten-O-Six	0.199	0.039
Sea Breeze	0.158	0.102
Bare Face	0.037	0.707
Clearasil	0.115	0.235
Normative Belief		
Ten-O-Six	0.091	0.349
Sea Breeze	0.117	0.230
Bare Face	0.084	0.386
Clearasil	0.043	0.659
Motivation to Comply	0.141	0.144

Table 34. Correlation Coefficients for Social Position and Attitude Variables for Casual Shoes N = 83

Variables	Social Position Correlation Coefficient	P = |R|
Aact Attitude Gain Score (Posttest-Pretest)		
Scholl	0.118	.287
Famolare	0.040	.717
Fanfares	0.129	.246
Earth Shoes	-0.037	.735
Fishbein Extended Model Gain Score (Posttest-Pretest)		
Scholl	0.153	.169
Famolare	0.055	.619
Fanfares	0.155	.162
Earth Shoes	-0.037	.740
Aact Attitude		
Scholl	-0.009	.939
Famolare	0.002	.983
Fanfares	0.010	.929
Earth Shoes	0.116	.298
Normative Belief		
Scholl	-0.113	.309
Famolare	0.006	.957
Fanfares	-0.025	.821
Earth Shoes	0.161	.147
Motivation to Comply	-0.051	.650

Table 35. Correlation Coefficients for Social Position and Attitude Variables for Panty Hose N = 92

Variables	Social Position Correlation Coefficient	P = |R|
Aact Attitude Gain Score (Posttest-Pretest)		
Sheer Energy	-0.095	.367
Hanes	-0.008	.941
L'eggs	0.010	.925
No Nonsense	0.068	.521
Fishbein Extended Model Gain Score (Posttest-Prestest)		
Sheer Energy	-0.089	.397
Hanes	0.001	.996
L'eggs	0.018	.866
No Nonsense	0.072	.497
Aact Attitude		
Sheer Energy	0.049	.643
Hanes	-0.028	.793
L'eggs	-0.058	.582
No Nonsense	-0.086	.416
Normative Belief		
Sheer Energy	0.050	.639
Hanes	0.046	.661
L'eggs	0.011	.917
No Nonsense	-0.018	.866
Motivation to Comply	0.037	.725

Table 36. Two-Way Analysis of Variance For Means of Attributes and Beliefs-Mouthwash

Source	DF	SS	MS	F
Control Pretest				
Beliefs	3	7.949	2.650	8.29***
Attributes	6	5.538	.923	2.89*
Error	18	5.750	.319	
Total	27	19.238		
Control Posttest				
Beliefs	3	3.172	1.057	2.370
Attributes	6	3.317	.636	1.426
Error	18	8.031		
Total	27	15.020		
Experimental Pretest				
Beliefs	3	3.703	1.234	4.981*
Attributes	6	3.903	.650	2.624
Error	18	4.462	.248	
Total	27	12.068		
Experimental Posttest				
Beliefs	3	11.146	3.715	14.267***
Attributes	6	2.282	.380	1.461
Error	18	4.687	.260	
Total	27	18.116		

* = $p < .05$.

*** = $p < .001$.

Table 37. One-Way Analysis of Variance for Advertising Claims-Mouthwash

Source	DF	SS	MS	F
Treatment	7	134.86	19.27	7.389**
Error	360	938.61	2.61	
Total	367	1073.47		

**=P < .01.

Table 38. Two Way Analysis of Variance for Means of Attributes and Beliefs-Blemish Cream

Source	DF	SS	MS	F
Control Pretest				
Beliefs	3	2.128	.709	13.663***
Attributes	6	.694	.116	2.230
Error	18	.934	.052	
Total	27	3.756		
Control Posttest				
Beliefs	3	1.581	.527	22.922***
Attributes	6	.346	.058	2.511
Error	18	.414	.023	
Total	27	2.341		
Experimental Pretest				
Beliefs	3	.763	.588	10.974***
Attributes	6	1.325	.221	4.123**
Error	18	.964	.054	
Total	27	4.053		
Experimental Posttest				
Beliefs	3	1.898	.633	25.265***
Attributes	6	3.212	.535	21.376***
Error	18	.451	.025	
Total	27	5.561		

** = $p < .01$.

*** = $p < .001$.

Table 39. One-Way Analysis of Variance for Advertising Claims-Blemish Cream

Source	DF	SS	MS	F
Treatment	7	43.96	6.28	2.37*
Error	456	1209.76	2.65	
Total	461	1253.74		

*=P < .05.

Table 40. Two-Way Analysis of Variance For Means of Attributes and Beliefs-Casual Shoes

Source	DF	SS	MS	F
Control Pretest				
Beliefs	3	9.915	3.305	69.816****
Attributes	6	1.140	.190	4.012*
Error	18	.852	.047	
Total	27	11.907		
Control Posttest				
Beliefs	3	9.383	3.128	94.92****
Attributes	6	.824	.137	4.169*
Error	18	.593	.033	
Total	27	10.800		
Experimental Pretest				
Beliefs	3	8.439	2.813	31.740****
Attributes	6	.892	.149	1.677
Error	18	1.595	.089	
Total	27	10.926		
Experimental Posttest				
Beliefs	3	2.710	.903	9.872***
Attributes	6	2.564	.427	4.669**
Error	18	1.647	.092	
Total	27	6.921		

* = $p < .05$.

** = $p < .01$.

*** = $p < .001$.

**** = $p < .0001$.

Table 41. One-Way Analysis of Variance for Advertising Claims-Casual Shoes

Source	DF	SS	MS	F
Treatment	7	59.18	8.45	2.71**
Error	328	1021.86	3.12	
Total	335	1081.04		

**=p < .01.

Table 42. Two-Way Analysis of Variance For Means of Attributes and Beliefs-Panty Hose

Source	DF	SS	MS	F
Control Pretest				
Beliefs	3	1.392	.464	14.734***
Attributes	6	1.939	.323	10.259***
Error	18	.567	.031	
Total	27	3.898		
Control Posttest				
Beliefs	3	.970	.323	16.580***
Attributes	6	1.618	.270	13.825***
Error	18	.351	.020	
Total	27	2.939		
Experimental Pretest				
Beliefs	3	1.251	.417	4.195*
Attributes	6	1.975	.329	3.310*
Error	18	1.790	.099	
Total	27	5.016		
Experimental Posttest				
Beliefs	3	.082	.027	.241
Attributes	6	2.043	.341	3.012
Error	18	2.035	.113	
Total	27	4.159		

* = $p < .05$.

*** = $p < .001$.

Table 43. One-Way Analysis of Variance for Advertising Claims-Panty Hose

Source	DF	SS	MS	F
Treatment	7	27.09	3.87	.953
Error	336	1364.88	4.06	
Total	343	1391.97		

Table 44. Fishbein Extended Model, Partial Correlation Coefficients for Mouthwash N = 94

	NB	MC
Scope		
Aact	.388***	.105
NB		.025
Listerine		
Aact	.323**	.167
NB		.013
Lavoris		
Aact	.485****	.164
NB		.071
Listermint		
Aact	.396****	.069
NB		-.110

** = $p < .01$.

*** = $p < .001$.

**** = $p < .0001$.

Table 45. Fishbein Extended Model, Partial Correlation Coefficients for Blemish Cream N = 108

	NB	MC
Ten-O-Six		
Aact	.477****	.129
NB		.102
Sea Breeze		
Aact	.383****	.162
NB		.138
Bare Face		
Aact	.498****	.087
NB		.020
Clearasil		
Aact	.424****	-.017
NB		.054

**** = $p < .0001$.

Table 46. Fishbein Extended Model, Partial Correlation Coefficients for Casual Shoes N = 83

	NB	MC
Scholl		
Aact	.339**	.008
NB		.030
Famolare		
Aact	.185	-.069
NB		.075
Fanfares		
Aact	.065	-.075
NB		.073
Earth Shoes		
Aact	.400**	.042
NB		-.151

** = p < .01

Table 47. Fishbein Extended Model, Partial Correlation Coefficients For Panty Hose N = 93

	NB	MC
Sheer Energy		
Aact	.218*	.069
NB		.167
Hanes		
Aact	.190	.093
NB		.178
L'eggs		
Aact	.397***	-0.001
NB		.000
No Nonsense		
Aact	.264**	.155
NB		.239*

* = p < .05.

** = p < .01.

*** = p < .001.

VITA

Brenda Sternquist Witter was born in Vermillion, South Dakota in 1951. After graduation from Beresford High School, she went on to complete the Bachelor of Science degree in Home Economics Education at South Dakota State University. Her Master of Science degree was awarded from the University of Alberta, Edmonton, in Clothing and Textiles after completion of the master's thesis "Clothing Values: A Suggested Means of Segmentation."

In the fall of 1976, she entered the interdisciplinary doctoral program at the University of Tennessee with areas of concentration in Textiles and Clothing, Consumer Economics and Marketing. The Ph.D. degree was awarded in August 1978.

During a break in her education, she was the owner and manager of a clothing boutique in Brookings, South Dakota. In addition, she has worked in various levels of retailing and was employed by the Alberta Poultry Council, Edmonton, Alberta as a marketing Home Economist. She was a graduate teaching assistant at both the University of Alberta and the University of Tennessee throughout her graduate programs.

She is a member of Phi Upsilon Omicron, American Home Economics Association, Association of College Professors in Textiles and Clothing and the American Marketing Association. She will be employed as an Assistant Professor in Human Environment and Design at Michigan State University after graduation. She has been married to Scott Witter, an environmental specialist in water resources and remote sensing, since 1972.