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**Subjective age identity and older consumers' responses to new  
product advertising**

**Weinman, Cynthia, Ph.D.**

**City University of New York, 1987**

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**SUBJECTIVE AGE IDENTITY AND  
OLDER CONSUMERS' RESPONSES TO NEW PRODUCT ADVERTISING**  
by  
**CYNTHIA WEINMAN**

A dissertation submitted to the Graduate Faculty  
in Psychology in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy,  
The City University of New York.

1987

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1987

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

SUBJECTIVE AGE IDENTITY AND OLDER  
CONSUMERS' RESPONSES TO NEW PRODUCT ADVERTISING

by

Cynthia Weinman

Adviser: Professor Leon G. Schiffman

A field experiment was conducted to determine whether subjective age or chronological age is a better predictor of older consumers' reactions to a new product advertising communication. An additional goal was to explore how consumer reactions vary as a function of how the communication is delivered and which product categories are the subjects of the communication.

Random telephone screening identified 900 women, 300 in each of three subjective by chronological age categories: those who are chronologically aged 65-79 and also perceive themselves to be in their 60's or 70's (the "subjective elderly"), those who are chronologically aged 65-79 but perceive themselves to be in their 40's or 50's (the "subjective middle-aged"), and those who are chronologically aged 40-54 and perceive themselves to be in their 40's or 50's (the "actual middle-aged"). Each group of 300 women was divided into three conditions and sent a mail-order

catalog which portrayed either: an endorser (the catalog maker) who was both chronologically and subjectively elderly, an endorser who was chronologically elderly but subjectively younger, or a no endorser condition. The catalog consisted of a series of new products which varied on the basis of type of risk each product represented to the consumer if purchased. A questionnaire which measured reactions to the catalog and its products was also sent to respondents. Thus, the research utilized a 3 x 3 x 3 repeated measures design in which the between factors were Subjective Age Identity x Endorser Subjective Age and the within factor was product Type Of Risk. The key dependent variable was purchase interest for the products in the catalog.

The research results demonstrated the viability of the subjective age construct. Specifically, the findings showed that in most instances, those with equivalent subjective ages were more similar to each other in their consumer attitudes and behavior than were those with equivalent chronological ages. A notable exception was the unexpected finding that chronologically elderly consumers (regardless of subjective age) displayed more willingness than did chronologically middle-aged consumers to try new products when those products are specifically targeted to them.

Additional analyses explored other effects of endorser and product risk category as well as the impact of identification with the endorser as a key moderator variable in the research. Implications for gerontological theory, marketing to older consumers, and societal stereotyping of old age were discussed.

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Finally, I'd like to express my appreciation to all my respondents -- who helped me demonstrate that "old age" can be but a state of mind.

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## INTRODUCTION

The proportion of elderly people in the population of the United States is growing rapidly. According to current data and projections (Conference Board, 1985; U.S. Bureau Of The Census, 1983; American Demographics, 1982; National Council On The Aging, 1978), there are approximately 26 million Americans who are age 65 or older, constituting more than 11% of the total U.S. population. This percentage is expected to swell to over 12% of the population by 1990, 13% by 2000, and an incredible 21% by the year 2030. Not surprisingly, considering this rate of growth, the elderly population has become a topic of considerable interest in various theoretical and applied fields. The present study is concerned with a particular area within the social-psychological behavior of elderly persons: how the elderly function as consumers.

The rationale for studying the consumer behavior of elderly persons is twofold. First of all, many theorists have suggested that the elderly, as a group, are particularly vulnerable to loss of personal control. This loss of control can include physical decline, loss of income and roles, death of loved ones, possible sexual difficulties, retirement, and threat of institutionalization (Cumming and

Henry, 1961; Riley and Foner, 1968; Seligman, 1975; Langer and Rodin, 1976; Kimmel, 1980). As a result, it is difficult to conduct meaningful research on age-related changes in behavior because there are few areas of behavior in which the elderly maintain equivalent control to the control they had when they were younger. However, consumer behavior remains a present and controllable role throughout adult life, even though fluctuations in income undoubtedly regulate purchase behavior. Therefore, consumer behavior is an appropriate arena in which to investigate the characteristics and psychology of an elderly population.

A second aspect of the consumer behavior of elderly persons which makes this area particularly important is that it deals directly with the issue of communicating with older people. Since people do experience sensory as well as social-psychological changes as they get older, the barriers to communicating with elderly people may become substantial. These barriers reflect variations with age in motivation and ability to communicate and in modes of communication. Nonetheless, there are some areas of communication which are common to all age groups. Mass communication -- e.g., news, information, and advertising -- is one example of such an area in that it is an important means through which all people maintain communication links with the rest of

society. However, because so little research has been done on communicating with older people in general (Oyer and Oyer, 1976), very little is known about how to present information via the mass media in a manner which most effectively communicates with older people. Specifically, in the case of consumer behavior, the issue is how to present information about products in a way that is understandable to older people and will help them make purchasing decisions. The better marketers understand how to communicate with older people, the more likely it is that older people will retain their roles as active, informed consumers.

The market audience known as the "elderly consumer" has long been an enigma to marketers (Lazer, 1986). One key problem relates to definition. There seems to be little agreement among marketers (or among behavioral scientists, for that matter) as to which age should be considered the beginning of "old age" (Advertising Age, 1987). A variety of recommendations have emerged, including age 50 plus (Bartos, 1979 and 1980; Langer, 1983), age 65 plus (Brotman, 1976; Ogilvy and Mather Advertising, 1977; Grey Advertising, 1981), and others. This lack of consensus on what defines an elderly consumer typifies the broad misunderstanding of this age group on the part of marketers, and many simply choose to avoid this market segment altogether (Schiffman and Kanuk, 1983).

Although there is still a great deal of neglect of the elderly segment of the marketplace (French and Fox, 1985; Garfield, 1984; Phillips and Sternthal, 1977; Gage, 1980), the recent increase of products and advertisements targeted at older consumers clearly indicates that marketers are beginning to recognize the profit potential of this audience (Visvabharathy and Rink, 1986; Petre, 1986; Kirkeby, 1980). However, most marketers who do direct efforts at older consumers tend to treat the elderly as a homogeneous group, i.e., they assume that consumers within this chronological age group will all behave alike (Greco, 1984; Schewe, 1984; Bartos, 1981; Towle and Martin, 1976). While this may be convenient from a marketing perspective, the existing evidence suggests that elderly people are as heterogeneous and differentiated as any other age group. Studies of adult personality development have generally found that elderly people display the same internally stable and separate personality types as do younger people (Neugarten, 1964; Reichard, Livson, and Peterson, 1962; Reedy, 1983). Moreover, many investigators have criticized the use of chronological age as an indicator of an individual's personality or behavior, since it only partially describes the

complex blend of biological, social, and psychological factors which define any individual (Kimmel, 1980; Ward, 1979; Neugarten, 1977).

In short, it is clear that the market audience known as the "elderly consumer" should be further segmented in order to be able to communicate with and to understand the behavior of individuals within this age group. The question becomes: What is a meaningful way to subdivide this market? Some recent research suggests that self-perceived age or subjective age identity\* may provide the clearest picture of age categories such as "young," "middle age," or "old age" (Barak and Schiffman, 1981; Kastenbaum and Durkee, 1964; Drevenstedt, 1976). Indeed, it would make sense that the way in which an individual classifies himself/herself would be more indicative of one's particular life stage than an arbitrary chronological indicator of age. However, the research conducted to date on subjective age identity has been primarily descriptive in nature and, consequently, there are no studies in the literature which specifically

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\* It should be noted that the terms "subjective age identity," "self-perceived age," and "age consciousness" each have somewhat different meanings, however distinctions between these terms have not been consistently maintained in the research literature. In this paper, these terms are not differentiated from each other and will be used interchangeably.

relate the self-perceived age of older consumers to their response to product advertising and subsequent purchase behavior.

The purpose of the current study is to explore whether the subjective age of older consumers is more predictive of how they might react to a persuasive communication than is their chronological age. An additional objective is to assess how this reaction varies as a function of certain aspects of the persuasive communication, specifically how the communication is delivered and which product category is being advertised. Broadly speaking, the study will investigate the interaction of three components predicting acceptance of a message according to communication theory: characteristics of the target, source of the communication, and the communication itself (Wrightsman, 1973). In this case, the target will be older consumers who either perceive themselves to be younger than or equivalent to their chronological age. These consumers will be exposed (by mail) to a persuasive message in which the source is either a subjectively older or a subjectively younger endorser. Finally, the communication itself will consist of a series of new products within several existing product categories varied

on the basis of type of risk each product represents to the consumer if purchased, e.g., financial risk, performance risk, social-psychological risk, etc.

The next chapter will describe the relevant literature in support of the research design, followed by a description of what will be done.

## CHAPTER I

### THEORETICAL FRAMEWORK

#### Subjective Perceptions Of Age

Although the notion of subjective perceptions of age or age identification in the elderly has been explored primarily through empirical research, there are some basic theoretical and philosophical threads which underlie the concept. An example of such a theoretical basis is a key issue in adult personality development: stability versus change of personality in old age. If a substantial proportion of adults who are chronologically over 65 really perceive their own age as much younger than that, this would represent an argument for stability of the personality system with age. That is, these adults might be expected to continue to behave in a manner that is relatively consistent with how they behaved when they were younger and not in accordance with some stereotypical notions of behavior in old age (i.e., disengaged, socially and psychologically withdrawn, and inactive). On the other hand, those elderly adults who perceive themselves as "old" would, in all likelihood, behave differently from the way they did when they were younger.

Other examples of a theoretical basis for the subjective age construct can be found in the cognitive theory of the aging process described by Thomae, and in Neugarten's concept of a "social clock." Thomae (1979, 1970) feels that there are internal or "cognitive" perceptions of aging -- i.e., how the individual sees his/her own aging process -- which are causes of behavioral change. In other words, rather than examining objective changes in person and environment, it is these subjective perceptions of change that are most related to and predictive of changes in behavior (i.e., if an individual feels old, he/she will act old). According to Thomae, the general sequence of behavioral change in adulthood is as follows: The individual has certain expectations and beliefs about what he/she needs. Changes in these expectations lead to changes in self-perception, which in turn lead to changes in behavior. (In contrast, if the expectations do not change, there is stability of behavior). Thomae argues strongly against any approach which looks at the aging personality as following an inevitable or universal course, because such an approach does not consider subjective perceptions of aging. In a similar vein, Neugarten (as cited in Kimmel, 1980) argues against explaining behavioral changes as a consequence of

objective social milestones which occur with age. She has noted that only events that occur "off time" -- i.e., either too early or too late according to social norms -- are those that cause crises. This implies that if a social event such as marriage, parenthood, or retirement is expected within an individual's subjective perception of social time, no crisis (and therefore no major developmental change) should occur. Again, it is the subjective assessment of the situation, rather than the objective occurrence, which is most impactful in effecting age-related changes in personality and/or behavior.

Thus, the theoretical foundation of the age-identification literature strongly implies that behavior of older people can be explained or even predicted through an understanding of how they perceive their own age. With regard to the empirical literature on subjective age, the focus is largely methodological: how is the passage of time measured? To a large extent, most of the social-psychological theories and research on age-related changes in behavior utilize "objective" indicators of time passage, such as chronological age, to measure how old an individual is and to offer an explanation of consequent behavior. Of

course, this is understandable since these objective indicators are more easily understood and more objectively measurable than are subjective perceptions of age (Neugarten, 1977). Nonetheless, subjective perceptions of chronological age, social context, or psychological feeling may be the most accurate indicators for explaining one's developmental category. This is so because the concept of subjective age identification directly addresses the meaning to the individual of his/her biological, social or psychological age -- any of which may or may not coincide with actual chronological age. In other words, while chronological age may be a factor in age identification, it is only part of the picture. As Ward (1979) states: "Chronological age is at best a very rough indicator of what an individual is like, since it only partially reflects the biological, psychological, or sociological processes which truly define life stages. Indeed, it is unfortunate that we stereotype people according to age as much as we do."

#### Empirical Research

Several studies have indicated that subjective age often does not coincide with chronological age (Zola, 1962; Kastenbaum and Durkee, 1964; Riley, Foner and Associates, 1968; Shanus, 1970; Ward, 1977; Cutler, 1983; Public Opinion, 1984; etc.). In fact, the research typically finds

that the majority of people aged 60 or older apparently perceive themselves as younger than their chronological age. For example, Bultena and Powers (1978), in their ten year longitudinal study of age identification, found that in 1960, 70% of their 235 non-institutionalized respondents (all of whom were over the age of 60) considered themselves to be "middle-aged," 19% considered themselves to be "elderly," and only 6% considered themselves to be "old." In 1970, the same respondents, all of whom were now over 70 (with a median age of 76), still did not, in the majority of cases, consider themselves to be "old." Thirty-two percent (32%) considered themselves to be "middle-aged," 38% claimed they were "elderly," and only 25% considered themselves to be "old". Indeed, 52% of the people in this study who were over the age of 85 viewed themselves as either "middle-aged" or "elderly" -- not as "old." A study conducted by Linn and Hunter (1979) found similar findings. They asked 150 respondents, aged 65 and older (mean age = 74): "Compared with others your age, do you think you feel older, younger, or about the same?" Sixty-four percent (64%) reported that they felt younger, a finding which is substantiated by research conducted by Tuckman and Lorge (1953), Aisenberg (1964), and others.

It might be argued that people deny being "old" because of the stigma attached to the label rather than as a reflection of their subjective age identity. However, Baum (1984), in a review of the empirical literature on age identification, reports that there is little evidence to support the notion that respondents in the various studies are denying being "old" because they are being influenced by the negative stigma attached to the word. Instead, Baum states that the data suggest "... 'younger feeling' represents various dimensions of physical, psychological, and social well-being." In other words, people who feel good about themselves do not believe themselves to be old -- regardless of how old they really are.

#### Methodological Considerations

A methodological shortcoming of the previously cited studies is that they measured subjective age in terms of a non-objective criterion -- i.e., respondents categorized their subjective age in referential terms, such as "young," "middle-aged," "elderly," or "old." However, in this procedure, self-perceived age is confounded with the subjective meaning of these referential categories to each individual respondent. In an attempt to circumvent this problem, Barak and Schiffman (1981) developed a measure of self-perceived age which uses an objective criterion: units of years.

Using the four age dimensions operationalized by Kastenbaum, Derbin, Sabatini, and Artt (1972) -- i.e., feel-age, look-age, do-age, and interest-age -- Barak and Schiffman had 324 respondents, who were aged 55 or older, classify themselves on each age dimension according to which chronological age group they felt they belonged: the twenties, thirties, forties, fifties, sixties, seventies, or eighties. In this way, they were able to cross-tabulate actual chronological age with a chronological measure of self-perceived age (which they termed "cognitive age"). Barak and Schiffman found that their respondents were substantially more likely to classify themselves as younger than their chronological age, a finding which essentially parallels those found by other investigators. The authors state:

These results reveal that for the majority of our elderly subjects, their chronological age does not adequately correspond to their perceived age as reflected by any of the four cognitive age dimensions. More importantly, the results can be interpreted as suggesting that the cognitive dimensions of age capture distinctly different aspects of age than is reflected by chronological age (Barak and Schiffman, 1981, p. 604).

#### Behaviorial Implications

Although there is much evidence to support the idea that many, if not most, older people perceive themselves to be younger than their chronological age, there is little

information on specific attitudinal or behavioral implications of such a perception. Instead, the literature has focused on the demographic or psychological correlates of a younger-than-chronological age perception, such as high socio-economic status (Rosow, 1967; Peters, 1971; Bengston, Kasschau, and Ragan, 1977; Underhill and Caldwell, 1983), relatively high levels of activity (Blau, 1956), positive regard for the future (Kastenbaum and Durkee, 1964; Kastenbaum, 1977), internal locus of control (Linn and Hunter, 1979), generally good adjustment and high self-esteem (Bultena and Powers, 1978; Linn and Hunter, 1979), relatively high education levels (Markides and Boldt, 1983; Peters, 1971), good health (Ward, 1979), and a liberal and less traditional social, political, and economic outlook (Cutler, 1983). In short, the literature to date has primarily been descriptive in nature.

With regard to consumerism, a recent study by Smith and Moschis (1984) found that a younger self-perceived age in the elderly is related to favorable attitudes toward advertising. Outside of this study, there is virtually no research on how consumer attitudes or behavior are influenced by self-perceived age. Nonetheless, there are indications that some marketers and advertisers have recognized that consumers sometimes act in accordance with how old they

perceive themselves to be rather than with how old they are. For example, Business Week (1971) reported that several companies, ranging from food to clothing manufacturers, abandoned their campaigns for "mature tastes" when they discovered that older consumers seemed to prefer a younger-oriented approach (and actually resented the old-age-oriented ads). Kotler (1976) relates how the Ford Motor Company discovered that the projected target market for its Mustang car -- young people -- was apparently incorrect in that older people were buying the car as well. Ford concluded that the car appealed not to those who were chronologically young but to those who were psychologically young. And finally, some advertisers who specialize in reaching the elderly market have concluded that these consumers may be best reached by using two different creative approaches: one targeted at those who like or are indifferent to growing old, and the other targeted at those who wish to be thought of as young (Gage, 1980).

Recently, a number of authors have recognized that consumer behavior of older people might be influenced by their subjective age (Mertz and Stephens, 1986; Lepisto, 1985; Exter, 1986; Sutherland, 1984), and many have supported the

need for empirical research to support this viewpoint. As stated by Mertz and Stephens (1986):

A second area worthy of study is the comparison between personal age and chronological age... People often buy a product as much for what it says about them as for what it does for them. Given this kind of buying pattern, it is extremely relevant to know how older Americans see themselves. If sixty-year-olds see themselves as forty-five-year-olds, their consumption will almost certainly reflect such a view. Businesses, then, would have to plan products and services that appeal to the forty-five-year-old personal age, not to the more objectively defined sixty-five-year-old chronological age... More study is needed to determine what variables are relevant to personal age and how they are relevant (Mertz and Stephens, 1986, pp. 56-57).

#### Reference Group Appeals

The current study will explore the attitudinal and behavioral consequences of subjective age identity in the older consumer. Hypothesis I is that subjective age will be a better predictor of consumer response to product advertising than will chronological age. This hypothesis will be examined through an assessment of consumer reactions to advertisements which are designed to appeal either to a subjectively younger or older audience by featuring either a subjectively younger or older endorser. Subjective age of endorser is an example of a "reference group appeal," or an appeal which portrays a member of a group with whose

ideology, style, and norms a consumer identifies (Markin, 1974). Theoretically, use of subjectively younger as opposed to subjectively older endorsers should make clear to consumers to which age group the appeal is intended and, therefore, responses to such an ad should vary according to which age-related reference group the consumer subjectively identifies himself/herself. Research on endorser effects supports the notion that reference group appeals are among the most effective strategies for segmenting markets (Schiffman and Kanuk, 1983). A brief review of this literature follows.

#### Concept Of Reference Groups

In the 1930's, Newcomb (1943) made a distinction between "membership groups" and "reference groups." He defined a membership group as one to which the individual belongs formally (e.g., Blacks, Jews, etc.), but not necessarily psychologically. In contrast, a reference group was defined as one in which the individual is a genuine psychological participant -- whether or not he/she formally holds membership (Markin, 1974). Because an individual identifies strongly with his/her reference group, such groups are among the most powerful sources of persuasive pressure (Markin, 1974; Freedman, Carlsmith, and Sears, 1974). As the source

of a persuasive message, a representative of a given reference group is perceived by other group members as similar to themselves, prestigious, likeable, and credible. Not surprisingly, these same attributes have long been considered by social psychologists to be the most likely to produce attitude change (Hovland and Weiss, 1952; Aronson, Turner, and Carlsmith, 1963; Freedman, Carlsmith, and Sears, 1974; etc.).

#### Types Of Product Endorsers

With respect to consumer advertising, a product endorser is used as the source of a persuasive communication with the intention that he/she appears as a representative of a specific reference group. In short, it has been found that a product endorser is most effective when the target consumer identifies with this product user (Schiffman and Kanuk, 1983). Friedman and Friedman (1979) identified three types of endorsers used in advertising: the celebrity (i.e., an entertainer, actor, sports figure, etc. who is known for achievements in areas other than the product class endorsed), the professional expert (i.e., an individual who possesses superior knowledge regarding the product class endorsed), and the "common man" (i.e., an ordinary person who has no special knowledge of the product class endorsed,

except that acquired by normal use of the product). While all of these endorser types are examples of reference group appeals, use of a "common man" endorser is specifically intended to demonstrate the endorser's similarity to the prospective consumer (Schiffman and Kanuk, 1983) and should, therefore, invoke the greatest degree of personal identification with the endorser (Friedman and Friedman, 1979). Accordingly, an appeal to one's age-related reference group would, in all likelihood, be most effective by utilizing a "common man" endorser.

#### Age Of Endorser

Because endorsers are so important to advertising effectiveness, marketers and advertisers are concerned with the social status of the spokesperson or "pitchman" used in promotion of a product (Harmon and Coney, 1982). Unfortunately, this translates into a paucity of older endorsers in advertising, since older people are perceived by mass advertisers as unattractive endorsers in that they remind consumers of role loss and deprivation (Hess, 1974). On the other hand, several marketers -- such as Levi Strauss, Germaine Monteil, Helena Rubinstein, and others -- have successfully used older endorsers in ads (Ad Forum, 1981; Barak and Stern, 1985; Product Marketing, 1977) by emphasizing a youthful image.

There is no formal literature on response of elderly consumers to the age of an endorser. However, there is evidence that older people are sensitive to how other older people are portrayed in the mass media. Research indicates that positive portrayals of the elderly on television correlates with positive self-image among older viewers, and vice versa (Korzenny and Neuendorf, 1980). For a very long time, a preponderance of negative stereotypes of elderly people appeared on television (Tamir, 1979; Atkins, 1976), and these portrayals were certainly damaging to an older person's self-concept (Hess, 1974). Although not specifically investigated, it seems logical to assume that this negative self-concept is a result of identification with the negatively-portrayed older person. Conversely, if an elderly individual does not identify with the negatively-portrayed older person because that person is not representative of the elderly individual's reference group, no loss in self-esteem should result.

Following the above reasoning, Hypothesis II of the present study is that a subjectively older endorser will be most persuasive to those elderly who identify with their actual chronological age group, while a subjectively younger endorser will be most persuasive to those elderly who

subjectively identify with a younger reference group. Confirmation of this hypothesis would have important implications for advertising to older people.

### Perceptions Of Risk In The Elderly Consumer

A final variable in this study deals with whether or not the effects of self-perceived age on response to advertising and consequent consumer behavior vary as a function of which product category is being advertised. That is, it may be the case that with certain product categories, subjective age is the best predictor of purchase behavior while with other product categories, chronological age is the best predictor. An example of how consumer products can be classified is on the basis of type of risk a given product is perceived to represent to the consumer. This section will describe why perceived risk is a particularly meaningful way to subdivide product categories when studying older consumers, and how this variable relates to the research design.

### Cautiousness

Much of the research on personality and aging suggests that personality remains fairly stable during the aging process (Reedy, 1983; Kimmel, 1980; Hall and Lindzey, 1978;

Schaie and Parham, 1976; Woodruff and Birren, 1972).

However, some personality dimensions appear to change with age. Many researchers have noted an apparent increase in cautiousness as one gets older (Botwinick, 1978; Elias and Elias, 1977; Chown, 1977; Jarvick and Cohen, 1973). In other words, as one ages, there seems to be an increased need for certainty and a desire to avoid failure -- due either to fear of failure or to a decrease in self-confidence concerning one's own abilities (Reedy, 1983). In fact, findings comparing older people to younger people on cautiousness as measured by performance have indicated that older people will more readily choose inaction rather than risk (e.g., omitting questions in a test situation rather than answer them incorrectly, or avoiding making a decision when one possible course of action is inaction), even when only a small risk is involved (Botwinick, 1978; Gergen and Back, 1969; Thorndike et al, 1928; Rapoport, 1982).

However, it is quite possible that degree of expressed cautiousness may vary for different older people, as it might be expected to vary for different members of any age group (Schiffman and Kanuk, 1983). Of specific concern to the current investigation is how cautiousness is affected by self-perceived age. Drawing on the research on cautiousness, we can hypothesize that older people who perceive

themselves as younger than their chronological age would be less cautious (e.g., more likely to purchase a product which has some degree of risk associated with it) than those who perceive themselves as equivalent to their chronological age. Therefore, Hyporhesis III is that cautiousness in the elderly will vary with subjective age.

#### Degree And Type Of Risk

As the above discussion suggests, perception of risk attached to purchasing a product is an important factor to consider when studying the consumer behavior of older people. However, perceived risk is a rather elusive concept. What one person may perceive as risky may be perceived as not risky by another person (Markin, 1974). In addition, only risk that is perceived (whether or not risk actually exists) can influence consumer behavior (Schiffman and Kanuk, 1983). Finally, what may be a risky purchase proposition for a particular age group (e.g., a "Flash Gordon" T-shirt for an older consumer) may be low risk for another age group.

It seems, therefore, that the broad concept of perceived risk should be broken down into smaller components in order to be able to understand the action of this variable in a research paradigm. Two key moderator variables associated with perceived risk are degree and type of risk. In

other words, perception of risk can vary by degree (e.g., high, medium, or low) or according to type (e.g., financial, social-psychological, physical, etc.). In the current study, degree of perceived risk should ideally be high in order to accentuate differences in cautiousness between those elderly who subjectively perceive themselves as younger versus older. While virtually any product which is purchased contains some degree of perceived risk (Bauer, 1960; Markin, 1974), a new product is almost always perceived as riskier than an established product (Brooker, 1984; Zikmund and Scott, 1977; Zaltman and Wallendorf, 1979). This is so because new products are unfamiliar, often ambiguous, and induce a low degree of certainty in the consumer when purchased (Popielarz, 1967). In addition, there is evidence that older adults may be more reluctant than younger ones to adopt a new product (Phillips and Sternthal, 1977; Mertz and Stephens, 1986; Robertson, 1971) -- a finding which is supported by the literature on cautiousness. Accordingly, the stimuli in the current study will be new products (within existing product categories) to ensure, to the extent possible, that they will be perceived as representing high risk to the older consumers.

A second moderator variable of importance is type of risk. There have been five risk dimensions commonly referred to in the consumer behavior literature (Jacoby and Kaplan, 1972; Friedman and Friedman, 1979; Schiffman and Kanuk, 1983): Functional or performance risk -- the risk that the product will not work properly; financial risk -- the risk that money will be lost on purchase of the product; physical risk -- the risk that the product may cause physical harm to the user; social risk -- the risk that a poor product choice may affect the way others think of the consumer; and psychological risk -- the risk that the product choice will not fit well with the consumer's self-image or bruise his/her ego. Different product categories have different types of risk associated with them (Bauer, 1960; Schiffman and Kanuk, 1983). For example, Friedman and Friedman (1979) identified three product categories, each of which represented different combinations of risk types: a vacuum cleaner, which was rated by a sample of female respondents as high on physical, financial and performance risk and low on the other types; costume jewelry, which was rated high on social and psychological risk and low on the other types; and a box of cookies, which was rated low on all five dimensions of perceived risk. Other investigators

have also shown that various product categories can be divided according to type of risk they are perceived to represent (Jacoby and Kaplan, 1972; Vincent and Zikmund, 1975; Brooker, 1984).

The present investigation will expose respondents to advertisements for new products within existing product categories, divided into somewhat similar risk type combinations as those employed by Friedman and Friedman (1979). That is, respondents will see three types of products: those which are high on functional and physical risk, but low on others; those which are high on social and psychological risk but low on others; and as a control, those which are low on all dimensions of perceived risk. Financial risk will be controlled across products by pricing all products equivalently and inexpensively. The reason for doing this is to prevent financial considerations from overwhelming all other considerations entering into the purchase decision, since many elderly people are in a low-income category (Elder, 1987; Schick, 1986; National Council On The Aging, 1978).

With regard to types of perceived risk, there will be two hypotheses. Hypothesis IVa is that those elderly who subjectively perceive themselves to be younger than their

chronological age will be relatively unlikely to buy products which they perceive as high in social/psychological risk. The rationale for this hypothesis is based on the well documented finding that people become more introverted or inner-directed with advancing age (Neugarten, 1968; Cumming and Henry, 1961; Botwinick, 1978; Chown, 1977). Building on this finding, it seems reasonable to assume that those elderly who subjectively perceive themselves to be younger should be as concerned as younger people with the social-psychological world, in that these elderly have not, in all likelihood, become inner-directed or less attentive to outside opinions. Consequently, they might be quite reluctant to take high social/psychological risks because of concern with the consequences.

Hypothesis IVb is that those elderly who subjectively perceive themselves to be as old as their chronological age will be relatively unlikely to buy products which they perceive as high in functional/physical risk. This hypothesis is based on the observation that as people get older (psychologically as well as chronologically), their number one concern is their health and physical condition (Louis Harris and Associates, 1976). For this reason, those elderly who perceive themselves to be as old as their chronological age should theoretically be less likely to take a high functional/physical risk.

## CHAPTER II

### THE RESEARCH DESIGN AND SUMMARY OF HYPOTHESES

#### The Research Design

As mentioned, the present investigation is intended to explore whether the subjective age of elderly consumers is more predictive of how they might react to a persuasive communication than is their chronological age, and if this reaction varies as a function of how the communication is delivered (i.e., according to subjective age of endorser) and which product category is being advertised (i.e, according to type of risk). This study will utilize a 3 X 3 X 3 factorial design in which the variables of interest are Subjective Age Identity, Endorser Subjective Age, and Type of Risk. For the Subjective Age Identity variable, there will be three groups: those who are chronologically aged 65 - 79 and also perceive themselves to be in their 60's or 70's (the "subjective elderly"), those who are chronologically aged 65 - 79 but perceive themselves to be in their 40's or 50's (the "subjective middle-aged"), and those who are chronologically aged 40 - 54 and perceive themselves to be in their 40's or 50's (the "actual middle-aged").

Although these proposed age breaks are somewhat arbitrary, there is certainly a great deal of literature indicating that age 40 to 54 is representative of what is commonly referred to as "middle-age" and age 65 to 79 is representative of what is commonly referred to as "elderly."

The variable of Endorser Subjective Age will be nested within the subjective age variable. That is, each of the three Subjective Age Identity groups will be divided into three conditions: those who see products advertised by a subjectively elderly endorser, those who see products advertised by a subjectively middle-aged endorser, and those who see products with no endorser in the advertisement. The latter condition (no endorser) will serve as the baseline against which to assess responses to the other two conditions.

Finally, Type of Risk will be a repeated factor across the Subjective Age Identity X Endorser Subjective Age conditions. Each respondent will see the following types of products: those that are high in social/psychological risk but low on other risk dimensions, those that are high in functional/physical risk but low on the other risk dimensions, and those that are low on all risk dimensions discussed by Jacoby and Kaplan (1972). Again, this latter group (no risk) is necessary to provide a benchmark against

which to assess whether there is a main effect for Type of Risk. Respondents will see two examples of each product category (and the data on each of these two examples will be collapsed in the analysis) so that any effect which is seen cannot be attributable to reactions to a particular product but rather to the type of risk associated with a product category.

The research design can be depicted as follows:

<u>SUBJECTIVE AGE IDENTITY</u>	<u>ENDORSER SUBJECTIVE AGE</u>	<u>TYPE OF RISK</u>		
		<u>SOCIAL/ PSYCHOLOGICAL (2 Products)</u>	<u>FUNCTIONAL/ PHYSICAL (2 Products)</u>	<u>NO RISK (2 Products)</u>
SUBJECTIVE ELDERLY	SUBJECTIVELY ELDERLY ENDORSER			
	SUBJECTIVELY MIDDLE-AGED ENDORSER			
	NO ENDORSER			
SUBJECTIVE MIDDLE-AGED	SUBJECTIVELY ELDERLY ENDORSER			
	SUBJECTIVELY MIDDLE-AGED ENDORSER			
	NO ENDORSER			
ACTUAL MIDDLE-AGED	SUBJECTIVELY ELDERLY ENDORSER			
	SUBJECTIVELY MIDDLE-AGED ENDORSER			
	NO ENDORSER			

## Summary Of Hypotheses

The following are the major hypotheses in the study:

- I. Subjective age will be a better predictor of consumer response to product advertising than will chronological age. That is, it is expected that the responses of the "subjective middle-aged" group will be more similar to the "actual middle-aged" group than to the "subjective elderly" group.
- II. Endorsers of different subjective ages will have a different impact on older consumers according to those consumers' age-related reference groups. A subjectively elderly endorser will be most persuasive to the "subjective elderly" group, while a subjectively middle-aged endorser will be most persuasive to the "subjective middle-aged" group.
- III. Cautiousness in the elderly will vary with subjective age. Specifically, the "subjective middle-aged" group will be less cautious (i.e., show higher purchase interest in risky products) than the "subjective elderly" group.
- IV. Reactions of elderly consumers to various products will vary as a function of subjective age and type of risk associated with a product.
  - a. The "subjective middle-aged" group will be relatively unlikely to buy products which they perceive as high in social/psychological risk.
  - b. The "subjective elderly" group will be relatively unlikely to buy products which they perceive as high in functional/physical risk.

## CHAPTER III

### METHOD

#### Subjects

Participation in the current research was limited to females only. There were several reasons for this decision. First of all, since there is evidence of gender differences in the consumer behavior of older people (Sherman and Schiffman, 1984) and in the way males and females relate to their subjective age identity (Bengston, Kasschau, and Ragan, 1977; Peters, 1971), there was reason to believe that the responses of males and females could not be effectively combined in the present research. Second, the research exposed consumers to relatively inexpensive items in categories such as household products, health and beauty aids, and clothing accessories -- categories in which previous research indicates that females are more likely than males to be the primary purchase decision-makers (Chilton Research Services, 1985; Bonfield, 1978; Cunningham and Green, 1974). Finally, the current study utilized the direct marketing technique of mail order catalog buying, a technique which has been heavily targeted to women (Dudek, 1984; Spalding, 1982).

The key subjects grouping in the research was the Subjective Age Identity factor. Three Subjective Age Identity groups were defined according to the following operational criteria: Group 1, the "subjective elderly," were defined as those who are chronologically aged 65-79 and also perceive themselves to be in their 60's or 70's; Group 2, the "subjective middle-aged," were defined as those who are chronologically aged 65-79 but perceive themselves to be in their 40's or 50's; and Group 3, the "actual middle-aged," were defined as those who are chronologically aged 40-54 and perceive themselves to be in their 40's or 50's. In other words, Groups 1 and 2 share the same chronological age but not subjective age while Groups 2 and 3 share the same subjective age but not chronological age.

The above operational criteria were formulated in order to establish boundaries around what could be considered equivalent actual and subjective ages and what could be considered discrepant ones. Specifically, for Groups 1 and 3 (i.e., those whose chronological and subjective ages match), the age gap between one's actual and subjective ages could not exceed ten years. Indeed, for virtually all of the subjects in these two groups, there was either no age gap or the gap did not exceed five years. For Group 2, however,

the minimum age gap between one's actual and subjective ages was six years and, for the majority of subjects, the age gap was much greater than that. (See Appendix B, Table 1 for a matrix which provides a detailed breakdown of actual age by subjective age as it distributes in the sample.)

It should be noted here that while there is no overlap in the subjective ages of Groups 1 and 2 (i.e., the two groups who are chronologically aged 65-79), there is a slight overlap for these two groups in terms of the age gap between their actual and subjective ages. That is, for a small proportion (roughly 10%) of Group 1 subjects, the age gap between their actual and subjective ages is ten years -- which is the same as the age gap of a minority of Group 2 subjects. Despite this slight overlap, the results indicate that Groups 1 and 2 are in fact operating independently as a function of their discrepant subjective ages (see Results section for more details).

Selection of the research subjects was conducted via telephone by an independent marketing research firm using two sources: a national probability sample of U.S. households from a list provided by Survey Sampling, Inc. and a random sampling of U.S. households drawn from the telephone directories of about forty geographically dispersed cities.

The telephone screening identified a starting sample of nine hundred (900) adult females who were willing to participate in the research and who belonged to one of the three previously described Subjective Age Identity groups: the "subjective elderly," the "subjective middle-aged," and the "actual middle-aged." Sampling continued until we obtained an equal number of subjects (i.e., 300) in each group.

The screening interview (see Appendix C) consisted of two questions intended to determine each individual's actual and subjective age for placement into one of the above categories. As discussed, there is no standard measure of Subjective Age Identity which has been agreed upon by researchers interested in this construct. In the present investigation, it seemed preferable to use a measure which is based on an objective criterion (e.g., years), such as the one developed by Barak and Schiffman (1981). Accordingly, Subjective Age Identity was measured using a modified version of the Barak and Schiffman "cognitive age" instrument, and was phrased as follows:

"You mentioned that you are in your (DECADE MENTIONED). Research has shown that some people in their (DECADE MENTIONED) really think of themselves as being in their (DECADE MENTIONED), while other people in their (DECADE MENTIONED) really think of themselves as being in a different age group -- either older or younger. Please tell me which of the following age groups you feel most similar to: the twenties, thirties, forties, fifties, sixties, seventies, or eighties."

The above measure was developed in lieu of using a mean composite of four age dimensions as suggested by Barak and Schiffman for two reasons. First of all, it is more practical from a procedural standpoint to ask one Subjective Age Identity question over the telephone rather than four. Second, and more important, a mean composite score of four age dimensions (i.e., feel-age, look-age, do-age, and interest-age) may not be representative of the way each individual personally combines these dimensions to describe himself/herself. That is, a composite score assumes an equal weight to each age dimension, and this is not necessarily how a given individual would weight these components. This new Subjective Age Identity measure was subjected to test-retest reliability pretesting prior to its use in the research (see Appendix A), and a binomial test indicated reliability at a level significantly above chance ( $p = .04$ ).

Each of the three Subjective Age Identity groups was divided into three treatment groups according to the Endorser Subjective Age variable. That is, one-third of respondents in each Subjective Age Identity group received in the mail an advertising stimulus -- specifically, a mail order catalog -- which featured a chronologically and

subjectively elderly endorser (hereafter referred to as "Older Emily," since the fictitious catalog endorser is named Emily Horton); one-third saw a chronologically elderly but subjectively middle-aged endorser (hereafter referred to as "Younger Emily"); and one-third saw no endorser (see Appendix C). In other words, the pre-mail sample consisted of 100 respondents assigned to each of nine cells: three Subjective Age Identity x three Endorser Subjective Age conditions.

In an attempt to achieve a high response rate from the mail portion of the study, two incentives were offered (see Appendix C) and a second mailout to non-responders was conducted. The net of these efforts was a rather good response rate of 575 out of 900, or 64%. The 575 consumers broke down into the following cell sizes for each of the nine analytic groups:

CELL SIZES FOR MAIN ANALYTIC GROUPS

		<u>ENDORSER SUBJECTIVE AGE</u>			
		"Older Emily"	"Younger Emily"	No Endorser	
SUBJECTIVE AGE IDENTITY	Subjective Elderly	50	62	71	183
	Subjective Middle-Aged	53	63	82	198
	Actual Middle-Aged	61	64	69	194
		164	189	222	TOTAL=575

Interestingly, the response rate was directionally although not significantly lower among the "subjective elderly" (61%) than among the "subjective middle-aged" (66%) or "actual middle-aged" (65%).

#### Materials And Procedure

During the telephone interview, each qualified respondent was told that she was being interviewed by a marketing research firm which represents a manufacturer of household products, and that this manufacturer is considering the introduction of a mail order catalog. Respondents were asked if they would agree to receive a mail sample of this catalog along with a questionnaire which measures their reactions to the catalog and to the products described in the catalog. It was anticipated that use of a mail order catalog as a stimulus would work well with older consumers because there is some evidence that the elderly tend to rely on in-home shopping services and newspapers for consumer information (Meadow, Cosmas, and Plotkin, 1981) and that self-regulated information processing among older people significantly enhances their comprehension (Phillips and Sternthal, 1977; Visvabharathy and Rink, 1986).

Respondents who agreed to participate received by mail a catalog describing six new products and a questionnaire (see Appendix C). There were three types of catalogs corresponding with the Endorser Subjective Age treatment cells. The first catalog contained a photograph of a woman who appeared to be around 70 and both her appearance and the accompanying introductory text established her subjective age to be equivalent to her chronological age. The text read as follows:

"I'm Emily Horton and I'd like to introduce my new mail-order catalog 'From Me To You.' In the pages that follow, you'll see some examples of the types of products I'll be offering.

As we get older, much of what we used to do without even thinking now seems a little harder and takes a little longer. I believe that it's time to take things a bit more slowly. The products I've selected for my catalog have made my life easier and more comfortable, and I would recommend them for anyone who welcomes convenient, easy to use items in their mature years. After all, why should we strain ourselves when things can be made more pleasant?

A unique feature of my catalog is that everything you see is priced at just \$4.95. My attitude is that things don't have to cost a lot to be of high quality.

I hope you enjoy the catalog. Please let me know what you think."

The second catalog featured the same 70'ish woman, but this time her appearance and the accompanying text established her subjective age to be younger than her chronological age. Specifically, the second paragraph of the text was altered to read:

"Just because we're getting older doesn't mean we should slow down. I believe that the best is yet to come. The products I've selected for my catalog have improved the quality of my life, and I would recommend them for anyone who is active and is interested in keeping young. After all, don't we deserve to make things more pleasant for ourselves?"

Respondents in the no endorser condition received a catalog with no picture and no reference to the maker.

Since the "Older Emily" and "Younger Emily" endorsers were actually the same woman photographed with different makeup and jewelry (designed to alter her subjective rather than actual age), the two endorsers varied only on subjective age and not on other, possibly intangible, factors. There were a couple of checks to verify that the two endorsers differed only on subjective age. First, a pretest was conducted which clearly showed that the two endorsers were perceived as having the same chronological age, but their subjective ages were perceived as differing in the

predicted direction (see Appendix A). Second, respondents who received a mail catalog with one of the two endorsers were asked to guess the age of the endorser. Again, t-tests confirmed that the two endorsers were perceived as having equivalent chronological ages (see Appendix B, Table 2).

The catalogs themselves consisted of pictures and descriptions of six new products within existing product categories (i.e., household products, clothing accessories, health and beauty aids, etc.), with the order of product presentation rotated across respondents. All products were priced equivalently and inexpensively (i.e., \$4.95) to negate a financial factor from affecting the results. The six new products were segmented into three product types (i.e., two new products in each product type) which were representative of the three combinations of risk dimensions described earlier. More specifically, the product types used in the research were: social/psychological risk products (i.e., a new type of gloves and a new kind of costume jewelry), functional/physical risk products (i.e., a new type of vitamins which aids in digestion and a new kind of oven cleaner which works with considerable force), and no risk products (i.e., a new kind of cracker and a new type of deck of cards). Respondents examined the catalog

and rated each product on various measures (described in the following section). There were three checks on the validity of the products chosen to represent Type of Risk. First, syndicated statistical data (i.e., MRI and Simmons) were examined to verify that the above mentioned products are not purchased at dramatically different rates by middle-aged versus elderly people (see Appendix A). In this way, there was no reason to suspect at the outset that there are age differences in the degree of risk which is associated with these products in the absence of a manipulation. Second, a pretest was conducted to confirm that each product represented the appropriate Type of Risk condition as hypothesized (See Appendix A). Finally, a measure was included in the research to validate that the product risk types were perceived as expected (see Appendix B, Tables 3-4).

### Dependent Variables

#### Questionnaire

The mail questionnaire which accompanied the catalog was comprised of five sections (see Appendix C). The first section consisted of questions which measured reactions to each advertised product (i.e., purchase interest and

reasons, and product attribute ratings). Next, respondents were asked to rate each product on the five risk dimensions, using the Jacoby and Kaplan (1972) instrument, to validate that the pretest was accurate in delineating Type of Risk dimensions according to those hypothesized for each product. The Jacoby and Kaplan scale has been found, in previous research, to be both reliable and valid (Jacoby and Kaplan, 1972; Brooker, 1984). The scale was administered by asking respondents to rate all six products by one risk type at a time in order to minimize a "halo effect" (Friedman and Friedman, 1979; Jacoby and Kaplan, 1972). Following this, respondents were asked to rate the catalog endorser overall and on a series of personal attributes. Additionally, respondents in the "Older Emily" and "Younger Emily" endorser conditions were asked to guess the age of the endorser. Responses to this question served as a validity check that the two endorsers did not vary on perceived chronological age (see Appendix B). The fourth section of the questionnaire obtained information on what image the catalog conveys (i.e., what type of woman would be most interested in the catalog). Finally, extensive demographic data were collected on each respondent. There were two types of demographics measured. First, data on respondents'

socio-economic status (e.g., occupation, income, education, etc.), health, and marital status were gathered. In addition, respondents were asked some general questions concerning their consumer behavior and experience (e.g., attitudes toward and prior experience with mail order catalogs, whether they belong to any consumer organizations, what types of consumer-related publications they read, etc.). This latter group of questions was intended to ascertain what attitudes and experience respondents bring into the situation, which can be used as a diagnostic tool in explaining the results. The comprehensibility of the mail questionnaire was pretested prior to its use in the research.

It should be noted that key demographic characteristics such as education, income, marital status, and health of respondents were not controlled for in this study. This is because there is evidence that these factors are highly correlated with self-perceived age (Rosow, 1967; Peters, 1971; Bengston, Kasschau, and Ragan, 1977; Ward, 1979; Underhill and Cadwell, 1983) and therefore, any attempt to manipulate the variability of these factors would have resulted in unrepresentative groups. Moreover, the present research is concerned with the consequences of subjective

perceptions of age on consumer behavior, and not with the factors which determine those perceptions. Nonetheless, demographic data on these key variables were gathered to confirm previous findings on the demographic correlates of subjective age and thereby to validate the representativeness of the current sample.

#### Behavioral Measure

Since it might be argued that intent to purchase is not as risky as actual purchase (in that it addresses attitudes rather than behavior), a behavioral measure was included in the research. Respondents were called back about a month after receipt of their completed questionnaires and asked if they would like to actually purchase the items from the catalog if the items were available. (Of course, respondents were debriefed immediately after they expressed their willingness or unwillingness to actually purchase the six products). A total of 550 subjects participated in the callback, which represents 96% of the total sample. A copy of the callback interview is included in Appendix C.

## CHAPTER IV

### RESULTS

#### Characteristics Of The Sample

This section will describe the characteristics of the research population. The remainder of the Results chapter will present findings relating to the research hypotheses.

#### Incidence Of Younger Vs. Older Subjective Ages Within The Population Of Those Aged 65-79

As noted in the Introduction, one finding that has been very well documented in the literature is that among older people, those who perceive themselves as younger than their chronological age greatly outnumber those who perceive themselves to be equivalent to or older than their chronological age. The current investigation found similar results. Table 1 shows that among all respondents aged 65-79 who completed a screening interview to determine their eligibility to participate in the research (a total of 1,043 people), 75% felt younger than their chronological age while 25% felt as old or older than their chronological age. Moreover, among those who felt younger, a large majority felt much younger, that is, they said they felt most similar to people in their 20's, 30's, 40's or 50's.

Table 1

INITIAL SCREENING FOR  
SUBJECTIVE AGE IDENTITY AMONG THOSE  
THOSE WHO ARE CHRONOLOGICALLY AGED 65-79 ①

<u>Subjective Age Identity</u>	<u>CHRONOLOGICAL AGE</u>	
	<u>65-69</u>	<u>70-79</u>
	<u>%</u>	<u>%</u>
80's ②	1	5
70's	1	8
60's	11	11
40's or 50's	17	12
20's or 30's ②	23	12

---

BASE: ③ 1,043

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- ① Table presented in percentages, rounded off to the nearest integer.
- ② Not included in study as did not meet operational criteria.
- ③ Includes all respondents aged 65-79 who completed the screening interview.

### Demographic Correlates Of Subjective Age

Before examining whether or not the experimental treatments were effective, it is important to establish that the selected sample subgrouping -- i.e., on the basis of Subjective Age Identity -- was indeed viable. That is, in order to justify the division of a chronological cohort by subjective age, the newly created subjective age subgroups should meet certain conditions, namely: (1) there should be demographic differences between the subgroups and (2) those differences should be consistent with findings from previous research on the subjective age construct.

Table 2 presents demographic information for the 575 respondents who completed the mail questionnaire and who constitute the analytic sample of the research. Several significant differences in the demography of the "subjective middle-aged" group (i.e., those aged 65-79 who perceive themselves to be in their 40's and 50's) compared with the "subjective elderly" group (those aged 65-79 who perceive themselves to be in their 60's and 70's) were found, all of which correspond with previous research (see Introduction). Specifically, the "subjective middle-aged" were significantly more likely than the "subjective elderly" to rate their health as excellent or very good ( $t = 2.57, df = 379,$

p < .02) and to be employed (t = 2.30, df = 379, p < .05). Additionally, the "subjective middle-aged" were significantly less likely than the "subjective elderly" to have no more than a high school education (t = 1.97, df = 379, p = .05) and to have a household income of under \$15,000 per year (t = 2.17, df = 379, p < .05).

Of course, a relationship also exists between one's actual age and certain demographic characteristics. Not surprisingly, those who are chronologically aged 40-54 were significantly more likely than those who are chronologically aged 65-79 (i.e., disregarding subjective age) to rate their health as excellent or very good (t = 4.96, df = 573, p < .001), to live with other people (t = 8.61, df = 573, p < .001), to be employed (t = 11.00, df = 573, p < .001), and to have a household income of \$30,000 or more per year (t = 8.93, df = 573, p < .001).

Table 2

RESPONDENT DEMOGRAPHICS

	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
	<u>§</u>	<u>§</u>	<u>§</u>
<u>Personal</u>			
<u>Description Of Health</u>			
Excellent/very good	39	52	67
Good	33	34	26
Fair/poor	26	10	4
No answer	2	4	3
<u>Marital Status</u>			
Married	55	51	79
Widowed	35	35	3
Divorced/separated	6	7	13
Never married	2	4	3
No answer	3	4	3
<u>Number Of People in Household</u>			
One	34	37	10
Two	53	49	27
Three or more	7	11	62
No answer	3	3	1
<u>Employment</u>			
<u>Employed</u>	<u>19</u>	<u>29</u>	<u>68</u>
Full-time	3	4	42
Part-time	16	25	26
<u>Not employed</u>	<u>76</u>	<u>66</u>	<u>29</u>
No answer	5	5	3
<u>Occupation</u>			
Volunteer	9	12	2
Craftsman	4	3	8
Sales/clerical	3	6	21
Professional	2	3	11
Manager	1	3	13
Technical	1	2	14
Not employed	76	66	29
No answer	4	5	1
<u>Education</u>			
High school or less	60	50	40
Some college or more	35	43	55
No answer	5	6	4
<u>Income</u>			
Under \$15,000	51	40	11
\$15,000 - \$29,999	31	33	29
\$30,000 or more	8	13	46
No answer	10	14	14
<u>Age</u>			
40 - 44	-	-	30
45 - 49	-	-	28
50 - 54	-	-	41
65 - 69	37	58	-
70 - 74	39	31	-
75 - 79	25	12	-
<hr/>			
BASE: ①	183	198	194

① Those who participated in the mail portion of the study  
(Total = 575).

Table 2 also indicates some differences in the chronological age distribution among respondents aged 65-79 on the basis of their Subjective Age Identity group. Specifically, the "subjective elderly" were more likely than the "subjective middle-aged" to be aged 75-79 while the "subjective middle-aged" were more likely than the "subjective elderly" to be aged 65-69 -- that is, the "subjective middle-aged" group skewed younger than the "subjective elderly" group. In fact, this finding should not be surprising when we consider that it is much more likely for a 65-69 year old to feel similar to people in their 40's or 50's than it is for a 75-79 year old to feel this way. Consequently, during sampling, an inevitable outcome was that the "subjective middle-aged" quota group would be sooner filled with those on the younger side of the specified 65-79 age range than with those on the older side.

Nonetheless, the finding that the "subjective middle-aged" group skews somewhat younger than the "subjective elderly" group (although all are over the age of 65) raises a key question: is this chronological age confound accounting for most of the reported demographic (or, as will be presented later, behavioral) differences between these two Subjective Age Identity groups or is this chronological age

confound essentially irrelevant to the effects related to these subjective age groupings? To address this issue, each of the two Subjective Age Identity groups was divided into the three chronological age subgroups from which they were comprised -- ages 65-69, 70-74, and 75-79 -- and the demographics of each chronological age subgroup were examined to ascertain whether there were any major differences from subgroup to subgroup within each Subjective Age Identity cell. As can be seen in Tables 3-4, there were virtually no significant differences between chronological age subgroups within either Subjective Age Identity group, e.g., within a given Subjective Age Identity group, those aged 65-69 were as likely as those aged 70-74 or 75-79 to rate their health as fair or poor, to have some college education, etc. Based on these data, it was concluded that differences between the "subjective elderly" and the "subjective middle-aged" groups are mainly a function of their discrepant subjective ages and not their somewhat discrepant chronological ages. Consequently, the results of this research are not being influenced to any significant degree by the age distribution within a given Subjective Age Identity group.

Table 3

KEY MEASURES BY CHRONOLOGICAL AGE  
SUBGROUPS WITHIN "SUBJECTIVE ELDERLY" GROUP

	<u>CHRONOLOGICAL AGES OF</u> <u>"SUBJECTIVE ELDERLY" GROUP</u>			
	<u>Total</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u>Personal</u>				
<u>Description Of Health</u>				
Excellent/very good/good	72	72	73	71
Fair/poor	26	28	23	27
<u>Employment</u>				
Employed full-time	3	4	1	2
Employed part-time	16	21	13	16
Not employed	76	73	77	78
<u>Education</u>				
High school or less	60	67	58	51
Some college or more	35	33	33	40
<u>Income</u>				
Less than \$15,000	51	48	51	56
\$15,000 - \$29,999	31	33	31	31
\$30,000 or more	8	10	7	4
<hr/>				
BASE	183	67	71	45
<hr/>				

Table 4

KEY MEASURES BY CHRONOLOGICAL AGE  
SUBGROUPS WITHIN "SUBJECTIVE MIDDLE-AGED" GROUP

	CHRONOLOGICAL AGES OF "SUBJECTIVE MIDDLE-AGED" GROUP			
	<u>Total</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u>Personal</u>				
<u>Description Of Health</u>				
Excellent/very good/good	85	85	85	87
Fair/poor	10	10	10	9
<u>Employment</u>				
Employed full-time	4	4	3	4
Employed part-time	25	31	20	13
Not employed	66	59	74	78
<u>Education</u>				
High school or less	50	46	57	52
Some college or more	43	46	39	39
<u>Income</u>				
Less than \$15,000	40	39	41	48
\$15,000 - \$29,999	33	32	39	22
\$30,000 or more	13	15	10	9
<hr/>				
BASE	198	114	61	23
<hr/>				

### Attitudinal Correlates Of Subjective Age

In addition to the above-mentioned demographic differences between Subjective Age Identity groups, the data showed some attitudinal correlates of subjective age perception which were not directly connected with the experimental manipulation. The attitudinal dimensions examined were drawn from some questions respondents were asked about their usage of and attitudes toward mail order catalogs, what magazines they read, and whether they belong to any consumer organizations. The purpose of these questions was to help determine what attitudes and experiences respondents brought into the experimental situation and whether responses to these questions differed as a function of Subjective Age Identity. Several trends were found, with some approaching significance. More specifically, the results show that the "subjective middle-aged" were directionally more likely than the "subjective elderly" to value mail order catalogs for their range of options and for the added control they allow over one's time ( $t = 1.58$ ,  $df = 379$ ,  $p < .12$ ) and to voice dislikes about mail order catalogs ( $t = 1.59$ ,  $df = 379$ ,  $p < .12$ ), (Table 5). These findings suggest an enhanced sense of personal control on the part of the "subjective middle-aged" as compared with the "subjective elderly" --

which is indicative of increased confidence on the part of the "subjective middle-aged" regarding their ability to influence their environment (Langer and Rodin, 1976; Langer, Rodin, Beck, Weinman, and Spitzer, 1979). Finally, the "subjective middle-aged" were directionally more likely than the "subjective elderly" to read consumer-oriented magazines, although they were not more likely to belong to a consumer organization (Table 6).

Table 5

RESPONDENTS' USAGE OF  
AND ATTITUDES TOWARD MAIL ORDER CATALOGS

	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective</u> <u>Elderly</u> <u>%</u>	<u>Subjective</u> <u>Middle-Aged</u> <u>%</u>	<u>Actual</u> <u>Middle-Aged</u> <u>%</u>
<u>Whether Made A Purchase</u>			
<u>From A Mail Order</u>			
<u>Catalog In Past Year</u>			
Yes	66	71	73
No	34	29	27
<u>Attitudes About Mail</u>			
<u>Order Catalogs:</u>			
<u>Attribute Describes</u>			
<u>"Extremely/Very Well"</u>			
Is a convenient way to shop	70	67	74
Offers unusual products	54	55	68
Makes shopping enjoyable	51	47	46
Usually offers better value for the money than a store	39	41	32
<u>Anything Liked About</u>			
<u>Mail Order Catalogs</u> ①			
Convenience	53	53	61
Don't have to leave home	29	28	30
Better selection	25	31	36
Better price/value	18	15	19
Have control over my time	15	17	26
<u>Anything Disliked About</u>			
<u>Mail Order Catalogs</u> ①			
Poor service	33	35	43
Can't examine products before buying	28	33	43
Problems with merchandise	20	26	29
Items cost more	17	16	16
Takes too much time	15	19	22
No dislikes	28	21	16
<hr/>			
BASE	183	198	194

① Based on open-ended responses.

Table 6

RESPONDENTS' PARTICIPATION IN SELECTED CONSUMER BEHAVIOR

	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective</u>	<u>Subjective</u>	<u>Actual</u>
	<u>Elderly</u>	<u>Middle-Aged</u>	<u>Middle-Aged</u>
	<u>%</u>	<u>%</u>	<u>%</u>
<u>Magazines Read On</u>			
<u>A Regular Basis</u>			
Mature market (e.g., Modern Maturity)	60	56	14
Health/beauty	40	36	17
News (e.g., Time, Newsweek)	33	33	34
Women's	28	31	27
Consumer (e.g., Consumer Reports)	18	23	26
Travel/leisure	15	14	9
Home living/decorating	12	13	15
<u>Whether Belong To</u>			
<u>Any Consumer Organizations</u>			
Yes	6	6	5
No	94	94	95
BASE	183	198	194

### Subjective Age Identity And Product Purchase Interest

Hypothesis I is that the responses of the "subjective middle-aged" group will be more similar to the "actual middle-aged" group than to the "subjective elderly" group. To test this hypothesis, a repeated measures MANOVA with purchase interest as the dependent variable was conducted on the full Subjective Age Identity x Endorser Subjective Age x Type of Risk (3 x 3 x 3) factorial design, with Endorser Subjective Age nested within Subjective Age Identity and Type of Risk as the repeated measure.⊛ The repeated measures MANOVA (Table 7) showed a significant main effect for Subjective Age Identity; however, this effect is due to similarity between the matched chronological age groups rather than the matched subjective age groups (see Table 19a). Furthermore, there were no significant interactions between Subjective Age Identity, Endorser Subjective Age, and Type Of Risk. Consequently, Hypothesis I is disconfirmed in that Subjective Age Identity had no overall effect on purchase intent.

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⊛ As mentioned previously, each of the three Type Of Risk categories (i.e., social/psychological risk, functional/physical risk, and no risk) consisted of two new products which were representative of that risk type. This was done so that any effect which is seen cannot be attributable to a particular product but rather to the type of risk associated with a product category. A measure which was included in the research (see Method section) validated that each product risk type was perceived as expected. Consequently, throughout the analysis, the new products will be analyzed within their respective Type Of Risk categories, that is, the individual products will not be analyzed separately.

Table 7

REPEATED MEASURES ANALYSIS  
OF VARIANCE ON FULL DESIGN: SUBJECTIVE  
AGE IDENTITY x ENDORSER SUBJECTIVE AGE x TYPE OF RISK

SOURCE	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Between Subjects</u>					
Subjective Age Identity	22.80	2	12.90	6.43	.002
Endorser Subjective Age	4.04	2	2.02	1.01	.366
SAI x ESA	10.96	4	2.74	1.37	.245
Subjects Within Groups	1126.23	561	2.01		
<u>Within Subjects</u>					
Type Of Risk	112.49	2	56.25	82.99	.000
SAI x TOR	5.36	4	1.34	1.98	.090
ESA x TOR	7.40	4	1.85	2.73	.030
SAI x ESA x TOR	7.29	8	0.91	1.35	.220
TOR x Subjects Within Groups	760.45	1122	.68		

Note: This table pools the individual univariate F-tests to obtain an averaged F-test, meaning that the hypothesis and error Sums of Squares and the associated degrees of freedom are summed. This is the same F-statistic obtained by specifying a repeated measures design as a "mixed model" univariate analysis of variance (Winer 1971, and Norusis 1985 as cited in SPSS-x Advanced Statistics Guide 1985, page 266).

While investigating why the hypothesis was not supported, it was discovered that a substantial number of subjects did not identify with the "appropriate" endorser, that is, the endorser whose subjective age matched their own. (The measure of identification with the endorser was the proportion of those rating the endorser as "someone just like me.") In fact, the percentage of respondents in any of the Subjective Age Identity x Endorser Subjective Age groups who claimed identification with an endorser -- appropriate or not -- did not exceed 60% (Table 8).

Table 8

NUMBER OF RESPONDENTS IN EACH SUBJECTIVE  
AGE IDENTITY GROUP WHO IDENTIFIED WITH ENDORSER

	<u>IDENTIFICATION WITH ENDORSER ①</u>	
	<u>Identify</u>	<u>Do Not Identify</u>
	<u>‡</u>	<u>‡</u>
<u>SUBJECTIVE AGE IDENTITY X ENDORSER SUBJECTIVE AGE</u>		
<u>Subjective Elderly</u>		
"Older Emily"	24 (48%)	26 (52%)
"Younger Emily"	35 (56%)	27 (44%)
<u>Subjective Middle-Aged</u>		
"Older Emily"	32 (60%)	21 (40%)
"Younger Emily"	38 (60%)	25 (40%)
<u>Actual Middle-Aged</u>		
"Older Emily"	28 (46%)	33 (54%)
"Younger Emily"	31 (48%)	33 (52%)

Note: Numbers in parentheses represent the proportion of subjects in each Subjective Age Identity x Endorser Subjective Age group who did or did not identify with the endorser they saw. Percentages read across.

① Identification with an endorser was defined as those who said the attribute "someone just like me" described the endorser extremely well, very well, or somewhat well.

There is no question that this unexpectedly low proportion of identification with the endorser would alter the research results. Indeed, a major assumption of the experimental design was that the endorsers would represent a reference group appeal -- an appeal which depends on identification between the subject and the communicator. Consequently, it seemed essential to ascertain if identification with the endorser is a key moderating variable in the current research that influences the relationship between Subjective Age Identity x Endorser Subjective Age and purchase interest in the new products. If identification with the endorser is established as a moderator variable, then it would be proper to test the research hypotheses by subdividing the Subjective Age Identity x Endorser Subjective Age treatment groups by the identification variable.

#### Effects Of Identification With The Endorser

##### Establishing Identification With The Endorser As A Moderator Variable

A moderator variable has been defined in the literature as "one which systematically modifies either the form and/or strength of the relationship between a predictor and a criterion variable" (Sharma, Durand, and Gur-Arie, 1981;

Arnold, 1982; Saunders, 1956). According to Sharma, Durand, and Gur-Arie (1981), a variable can be considered to be a moderator variable if it meets two conditions: (1) the hypothesized moderator variable must show a significant interaction with the predictor variable; and (2) the hypothesized moderator variable may be related to the criterion variable if this can be justified on theoretical grounds.

To test the first condition, a four-way repeated measures MANOVA was conducted (Subjective Age Identity x Endorser Subjective Age x Identification With Endorser as the between measures, Type Of Risk as the repeated measure, and new product purchase interest as the dependent measure). These were the usual three levels of Subjective Age Identity and Type Of Risk, but two levels of Endorser Subjective Age (i.e., those who were exposed to "Older Emily" versus "Younger Emily") and two levels of Identification With Endorser (those who claimed to identify with the endorser versus those who did not). The hypothesized moderator variable was Identification With Endorser and there were two predictor variables: Subjective Age Identity and Subjective Age Identity x Endorser Subjective Age. The

analysis found significant interactions between Identification With Endorser and Subjective Age Identity ( $F = 3.33$ ,  $p < .04$ ) and between Identification With Endorser and Subjective Age Identity x Endorser Subjective Age ( $F = 3.74$ ,  $p < .03$ ), thereby satisfying the first condition (Table 9).

Table 9

FOUR-WAY REPEATED MEASURES ANALYSIS OF VARIANCE:  
SUBJECTIVE AGE IDENTITY x ENDORSER SUBJECTIVE AGE x  
TYPE OF RISK x IDENTIFICATION WITH ENDORSER

SOURCE	SS	df	MS	F	p
<u>Between Subjects</u>					
Subjective Age Identity	25.70	2	12.85	6.61	.002
Endorser Subjective Age	1.23	1	1.23	0.63	.427
Identification With Endorser	61.27	1	61.27	31.49	.000
SAI x ESA	5.67	2	2.84	1.46	.234
SAI x IWE	12.97	2	6.48	3.33	.037
ESA x IWE	.66	1	.66	.34	.562
SAI x ESA x IWE	14.54	2	7.27	3.74	.025
Subjects Within Groups	661.50	340	1.95		
<u>Within Subjects</u>					
Type Of Risk	57.47	2	28.73	44.87	.000
SAI x TOR	5.99	4	1.50	2.34	.054
ESA x TOR	3.97	2	1.99	3.10	.046
IWE x TOR	1.22	2	.61	.95	.388
SAI x ESA x TOR	5.71	4	1.43	2.23	.064
SAI x IWE x TOR	5.89	4	1.47	2.30	.057
ESA x IWE x TOR	.30	2	.15	.24	.791
SAI x ESA x IWE x TOR	.98	4	.25	.38	.822
TOR x Subjects Within Groups	435.47	680	.64		

Source: SPSS-X, 1986

The second condition was tested via a stepwise regression on each of the endorser ratings (see questionnaire in Appendix C) to assess the multivariate nature of the relationship between the endorser ratings (among which is "someone just like me," the hypothesized moderator variable) and product purchase interest (i.e., the criterion variable). For each endorser variable, the computer program systematically sought out the best combination of predictors then ceased when no additional endorser rating could significantly add to the variance already explained (i.e., at a level of .05 or above). As Table 10a indicates, the best predictor of product purchase interest is the endorser rating "someone just like me." This variable accounts for almost 25% of the purchase interest variance (adjusted  $R^2 = .241$ ), which is a highly significant amount ( $t = 5.34$ ,  $p < .001$ ). This result is not surprising insofar as the theoretical basis of a reference group appeal (i.e., identification with a communicator) being related to persuasiveness is well established (Markin, 1974; Freedman, Carlsmith and Sears, 1974). Consequently, the second condition is also satisfied and therefore, Identification With Endorser can be considered a legitimate moderator variable. A test of the research hypotheses using Identification With Endorser to delineate the independent variables follows below.

Table 10a

STEPWISE REGRESSION ANALYSIS:  
PURCHASE INTEREST SCORES REGRESSED ON ENDORSER RATINGS  
 (Among Those Who Saw An Endorser)

<u>Variable</u>	<u>Adjusted R<sup>2</sup></u>	<u>Coefficient (B)</u>	<u>Coefficient (beta)</u>	<u>t</u>	<u>sig</u>
Someone just like me	.241	.219	.340	5.34	.0001
Knowledgeable	.290	.236	.274	4.31	.0001

BASE: 258

Source: SPSS-X, 1986

Table 10b

INTERCORRELATION MATRIX: PURCHASE INTEREST BY ENDORSER RATINGS  
 (Among Those Who Saw An Endorser)

<u>Purchase Interest</u>	<u>ENDORSER RATINGS</u>								
	<u>Just Like Me</u>	<u>Per- suasive</u>	<u>Believ- able</u>	<u>Knowledge- able</u>	<u>Trust- worthy</u>	<u>Likeable</u>	<u>Competent</u>	<u>Sincere</u>	
Purchase Interest	1.00	.49	.41	.44	.47	.42	.34	.39	.42
<u>Endorser Ratings</u>									
Just Like Me	1.00	.49	.60	.56	.60	.59	.60	.53	
Persuasive		1.00	.62	.63	.59	.58	.56	.54	
Believable			1.00	.74	.77	.70	.73	.76	
Knowledgeable				1.00	.73	.70	.74	.71	
Trustworthy					1.00	.79	.76	.78	
Likeable						1.00	.73	.70	
Competent							1.00	.79	
Sincere								1.00	

BASE: 258

Identification With Endorser And Its Effect  
On Purchase Interest

The four-way repeated measures MANOVA found a significant main effect for Identification With Endorser ( $F = 31.49, p < .001$ ) which indicated that those who identified with an endorser had significantly higher purchase interest than those who did not identify (Table 11). Moreover, as previously mentioned, the MANOVA found a number of significant interactions among the variables. The two-way interaction of Subjective Age Identity x Identification With Endorser ( $F = 3.33, p < .04$ ) revealed, via a series of a priori contrasts, that both the "subjective middle-aged" ( $t = 4.48, p < .001$ ) and "actual middle-aged" ( $t = 4.24, p < .001$ ) had significantly higher purchase interest when they identified with an endorser compared with when they did not, while the "subjective elderly" showed no such differences. This parallel behavior between the "subjective middle-aged" and "actual middle-aged," as illustrated in Figure 1, suggests that a relationship which would be predicted by Hypothesis I (that the responses of the "subjective middle-aged" will be more similar to the "actual middle-aged" than to the "subjective elderly") is found under conditions when Identification With Endorser is taken into account.

Table 11

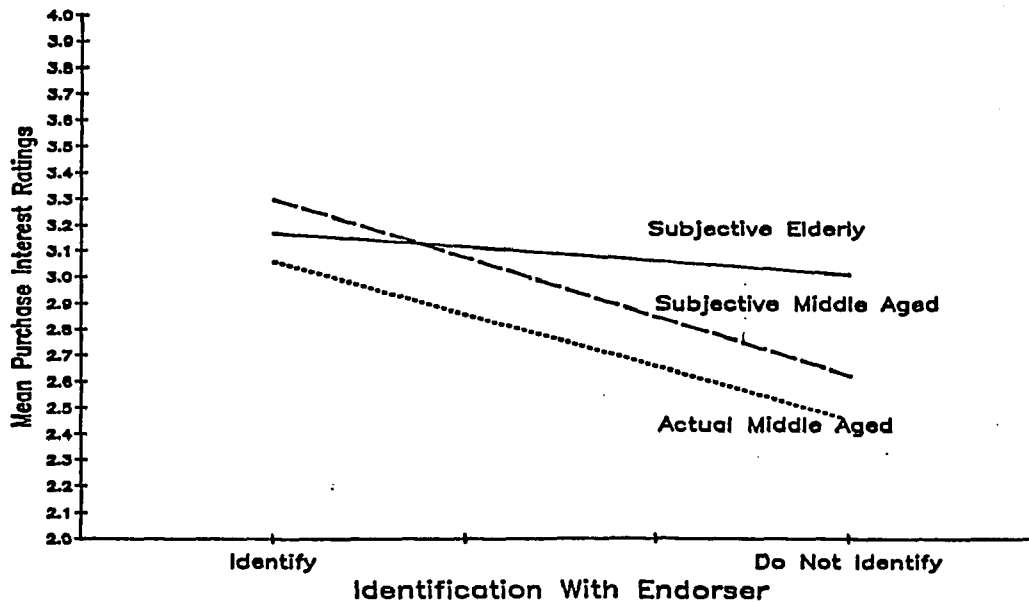
**MEAN PURCHASE INTEREST RATINGS FOR INTERACTION  
OF SUBJECTIVE AGE IDENTITY BY IDENTIFICATION WITH ENDORSER**

<u>Identification With Endorser</u>	<u>SUBJECTIVE AGE IDENTITY</u>			
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>	
Identify	3.17	3.30	3.06	3.18*
Do Not Identify	3.01	2.62	2.45	2.68
	3.09*	3.03*	2.74	

Note: Individual cell size ranges from 46 to 70 subjects.

\* Row and column totals (main effects) are significantly different from other groups ( $p < .05$ )

**Figure 1  
Mean Purchase Interest Ratings of  
Each Subjective Age Identity Group  
By Identification With Endorser**



The significant three-way interaction of Subjective Age Identity x Endorser Subjective Age x Identification With Endorser ( $F = 3.74, p < .03$ ) showed some differences in purchase interest between the "subjective middle-aged" and the "subjective elderly" by whether or not they identified with the "appropriate" endorser (i.e., an endorser whose subjective age matched with the respondent's subjective age). A priori contrasts on the mean purchase interest scores presented in Table 12 revealed that those "subjective middle-aged" who identified with "Younger Emily" had significantly higher purchase interest than those who did not ( $t = 4.03, p < .001$ ). However, there was no significant difference in purchase interest by identification versus lack of identification with "Older Emily" among the "subjective elderly."

Table 12

MEAN PURCHASE INTEREST RATINGS FOR  
INTERACTION OF SUBJECTIVE AGE IDENTITY BY  
ENDORSER SUBJECTIVE AGE BY IDENTIFICATION WITH ENDORSER

	SUBJECTIVE AGE IDENTITY X ENDORSER SUBJECTIVE AGE					
	SUBJECTIVE ELDERLY		SUBJECTIVE MIDDLE-AGED		ACTUAL MIDDLE-AGED	
	Older Emily	Younger Emily	Older Emily	Younger Emily	Older Emily	Younger Emily
<u>Identification With Endorser</u>						
Identify	3.17	3.17	3.23	3.36	3.13	2.99
Do Not Identify	3.09	2.93	2.73	2.53	2.15	2.74

Note: Individual cell sizes range from 24 to 38 subjects.

Table 12 also shows a significantly higher mean purchase interest score among those "actual middle-aged" who identified with "Older Emily" (i.e., an "inappropriate endorser) versus those who did not ( $t = 4.73, p < .001$ ). A closer look, however, reveals that this result is primarily due to an unusually low mean purchase interest score among those "actual middle-aged" who did not identify with "Older Emily." In fact, this score is lower by far than any other mean purchase interest score among those who did not identify with an endorser ( $t = -4.14, p < .001$ ). Clearly, those "actual middle-aged" who did not identify with "Older Emily" did so because of a very negative reaction to her. In contrast, for all other Subjective Age Identity x Endorser Subjective Age groups, the reason for any significant differences between identification and lack of identification with an endorser seemed primarily due to a positive reaction to the endorser with whom one identified rather than a negative reaction to the endorser with whom one did not identify.

Table 13 provides some confirmation regarding the validity of conducting analyses by identification versus lack of identification with an "appropriate" endorser. As is evident, the standard deviations from the mean purchase

interest ratings for each Subjective Age Identity group are lower among those who identified with an "appropriate" endorser ("Older Emily" for the "subjective elderly" and "Younger Emily" for the "subjective middle-aged" and "actual middle-aged") than among either those who did not identify with an "appropriate" endorser or those who identified with an "inappropriate" endorser. These findings indicate that identification with an "appropriate" endorser as hypothesized seems to form the most cohesive groups, and that either lack of identification with an "appropriate" endorser or identification with an "inappropriate" endorser produces the greatest amount of group variability.

Table 13

STANDARD DEVIATIONS FOR PURCHASE INTEREST SCORES  
BY IDENTIFICATION WITH AND LACK OF IDENTIFICATION  
WITH "APPROPRIATE" VERSUS "INAPPROPRIATE" ENDORSER

	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
<u>Identified With:</u>			
"Older Emily"	.6757	.8475	.9519
"Younger Emily"	.8372	.8264	.6396
-----			
<u>Did Not Identify With:</u>			
"Older Emily"	.8960	.7610	.6198
"Younger Emily"	.7343	.9288	.8590

Note: Individual cell sizes range from 24 to 38 subjects.

Relationship Between Identification Versus Lack  
Of Identification With An Endorser And  
Non-Exposure To An Endorser

As the three-way repeated measures MANOVA on the full 3 x 3 x 3 (Subjective Age Identity x Endorser Subjective Age x Type Of Risk) factorial design revealed (see Table 7 above), there was no significant main effect for Endorser Subjective Age. This suggests that purchase interest was not higher among those who saw an endorser versus those who did not. However, as we have since discovered, lack of identification with an endorser tends to depress purchase interest ratings and thereby confounds this main effect. Consequently, to ascertain whether seeing an endorser has a positive effect on purchase interest in the present investigation, it is necessary to compare three sets of mean purchase interest scores within each Subjective Age Identity group: among those who saw an endorser and identified with her; among those who saw an endorser but did not identify with her; and among those who did not see an endorser.

The results of this analysis showed significantly higher mean purchase interest scores among those who identify with an endorser versus those who were not exposed to an endorser for each Subjective Age Identity group (for the "subjective elderly,"  $t = 2.34$ ,  $p = .02$ ; for the "subjective

middle-aged,"  $t = 2.24$ ,  $p < .03$ ; and for the "actual middle-aged,"  $t = 1.98$ ,  $p < .05$ ). This demonstrates that with endorser identification, a main effect for endorser exists such that exposure to an endorser generates higher purchase interest than does no exposure. An additional finding is that for both the "subjective middle-aged" ( $t = -2.50$ ,  $p < .02$ ) and the "actual middle-aged" ( $t = -2.25$ ,  $p < .03$ ), mean purchase interest scores were significantly lower among those who did not identify with an endorser than among those who saw no endorser at all. This effect did not occur for the "subjective elderly" (Table 14a). These same data among those who did or did not identify with an "appropriate" endorser show similar trends (Table 14b).

Table 14a

MEAN PURCHASE INTEREST SCORES FOR IDENTIFICATION  
WITH ENDORSER VERSUS NO EXPOSURE TO ENDORSER

<u>Condition</u>	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
Identified With Endorser	3.17	3.30	3.06
Did Not Identify With Endorser	3.01	2.62	2.45
Were Not Exposed To Endorser	2.83	3.00	2.77

Note: Individual cell sizes range from 46 to 82 subjects.

Table 14b

MEAN PURCHASE INTEREST SCORES FOR IDENTIFICATION  
WITH "APPROPRIATE" ENDORSER VERSUS NO EXPOSURE TO ENDORSER

<u>Condition</u>	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
Identified With "Appropriate" Endorser	3.17	3.36	2.99
Did Not Identify With "Appropriate" Endorser	3.09	2.53	2.74
Were Not Exposed To Endorser	2.83	3.00	2.77

Note: Individual cell sizes range from 24 to 82 subjects.

### Attributes Which Correlate With Identification

In consideration of the apparent importance of fostering identification with the endorser -- particularly for the "subjective middle-aged" and "actual middle-aged" -- several analyses were conducted to ascertain which variables are related to identification. First, regression analyses were conducted to see which endorser ratings and which catalog-buyer image ratings were best at predicting identification with "Younger Emily" among the "subjective middle-aged" and "actual middle-aged." Results of these analyses are found in Table 15. In terms of endorser ratings, "believability" is most strongly related to identification. This variable accounts for a highly significant ( $t = 6.13, p < .001$ ) 45% of the variance in identification (adjusted  $R^2 = .455$ ). According to the regression equation, the greatest increment to "believability" is provided by "persuasiveness." These two variables combined account for almost half the identification variance (adjusted  $R^2 = .473$ ).

Looking at catalog-buyer image ratings, "intelligence" accounts for more than a quarter of the variance in identification (adjusted  $R^2 = .273, t = 2.57, p < .02$ ) and "liveliness" brings the total variance accounted for to just under a third (adjusted  $R^2 = .314, t = 2.57, p < .02$ ).

These data imply that increasing identification with "Younger Emily" among the "subjective middle-aged" and "actual middle-aged" is related to increasing the perception that the catalog is suited to intelligent and lively women.

Table 15

REGRESSION ANALYSES: VARIABLES  
WHICH PREDICT IDENTIFICATION WITH "YOUNGER EMILY"  
 (Among The "Subjective Middle-Aged" And The "Actual Middle-Aged")

	<u>Adjusted R<sup>2</sup></u>	<u>Coefficient (B)</u>	<u>Coefficient (beta)</u>	<u>t</u>	<u>sig</u>
<u>Regression I:</u>					
<u>Identification By</u>					
<u>Endorser Ratings</u>					
Believable	.455	.703	.554	6.13	.000
Persuasive	.473	.277	.208	2.30	.024
-----					
<u>Regression II: Identi-</u>					
<u>fication By Catalog</u>					
<u>Buyer Image Ratings</u>					
Intelligent	.273	.359	.311	2.57	.012
Lively	.314	.333	.310	2.57	.012

BASE: 127

With regard to whether there are any demographics which were related to identification with "Younger Emily" among the "subjective middle-aged" or "actual middle-aged," a series of chi-square analyses revealed no significant relationships.

Identification With An "Appropriate" Endorser And Its  
Effect On Measures Other Than Purchase Interest

We have seen that when the identification moderator variable is included in the analysis, a Hypothesis I relationship (that the responses of the "subjective middle-aged" will be more similar to the "actual middle-aged" than to the "subjective elderly") is supported when looking at mean purchase interest ratings (see Table 11 above). With regard to other measures in the research, Table 16 presents mean endorser ratings, mean catalog-buyer image ratings, and mean overall rating of mail-order catalogs by Subjective Age Identity and Identification With Endorser -- specifically by whether or not the respondent identified with the "appropriate" endorser. The findings indicate that the Hypothesis I relationship finds support in virtually all these measures in that the "subjective middle-aged" and "actual middle-aged" almost always showed significant differences by whether or not they identified with the "appropriate" endorser while the "subjective elderly" almost never showed such differences.⊛

---

⊛ Identification with an endorser may be an irrelevant construct for the "subjective elderly." As Table 16 shows, those who identified with "Older Emily" did not differ on most measures from those who did not identify with her. Moreover, a separate analysis showed that the same was true for those "subjective elderly" who identified with "Younger Emily" versus those who did not.

Table 16

MEAN RATINGS OF VARIABLES OTHER THAN PURCHASE INTEREST BY IDENTIFICATION ①  
 (When Subjective Age Identity And Endorser Subjective Age Match)

	SUBJECTIVE AGE IDENTITY X ENDORSER SUBJECTIVE AGE					
	"SUBJECTIVE ELDERLY" EXPOSED TO "OLDER EMILY"		"SUBJECTIVE MIDDLE-AGED" EXPOSED TO "YOUNGER EMILY"		"ACTUAL MIDDLE-AGED" EXPOSED TO "YOUNGER EMILY"	
	Identify	Do Not Identify	Identify	Do Not Identify	Identify	Do Not Identify
<u>Endorser Ratings</u>						
Persuasive	4.05	4.10	4.14	3.44	3.65	2.89
Believable	4.00	3.82	4.40	3.13	3.87	3.00
Knowledgeable	4.13	4.00	4.39	3.53	3.80	3.07
Trustworthy	4.17	3.50	4.32	3.44	3.83	2.85
Likeable	4.13	3.86	4.27	3.60	4.03	3.00
Competent	3.96	3.77	4.36	3.57	3.90	3.07
Sincere	4.35	3.94	4.46	3.69	4.03	3.24
Overall	3.88	3.56	4.08	3.17	3.48	2.52
<u>Catalog-Buyer Image Ratings</u>						
Intelligent	3.96	4.00	3.97	3.47	3.70	2.77
Fashionable	3.41	3.07	3.78	2.73	3.30	2.50
Contemporary	3.59	3.29	3.94	3.14	3.47	2.69
Healthy	3.83	3.89	3.94	3.06	3.69	2.70
Confident	3.96	3.60	4.19	3.19	3.53	2.84
Attractive	3.78	3.31	3.94	3.07	3.43	2.61
Lively	3.68	3.38	3.97	3.29	3.39	2.61
Old-Fashioned	3.17	2.47	2.47	2.57	2.83	2.84
OVERALL RATING OF MAIL-ORDER CATALOGS	3.88	3.93	4.11	3.71	3.73	3.77
BASE	24	26	38	25	31	33

☐ = Indicates a significant difference at least at the .05 level.

① Scale goes from 1 = Does not describe at all, to 5 = Describes extremely well

Summary: Conditions Under Which The  
Effects Of Subjective Age Identity Are Apparent

The preceding analyses have shown that Hypothesis I, i.e., groups matched on Subjective Age will be more similar to each other than will groups matched on chronological age, is not supported when looking at the main effect of the Subjective Age Identity grouping or at the interaction of Subjective Age Identity, Endorser Subjective Age and Type Of Risk with regard to product purchase interest (see Table 7 above). But, when Identification With Endorser is taken into account and respondents are categorized according to whether or not they identify with an "appropriate" endorser (i.e., one whose subjective age matches the respondent's subjective age), then support is found for several relationships which would be predicted by Hypothesis I. Thus, we find that when identification with an "appropriate" endorser occurs, the "subjective middle-aged" and "actual middle-aged" groups are similar to each other on measures of product purchase interest (see Table 11), reactions to the endorsers (see Tables 14a, 14b, and 16), catalog-buyer image ratings (see Table 16), and overall rating of mail order catalogs (see Table 16). Conversely, the "subjective elderly" group displays a response pattern that differs from that of either of the other two groups on all of these measures.

Having found that Subjective Age Identity is indeed relevant when Identification With Endorser is considered, further analyses were conducted which compare the two chronologically elderly groups who differ on subjective age -- the "subjective elderly" and the "subjective middle-aged" -- in terms of persuasiveness of the endorsers (Hypotheses II), cautiousness in buying risky products (Hypothesis III), and reactions to different product risk categories (Hypothesis IVa and Hypothesis IVb). It should be noted, however, that Hypothesis I is implicitly supported in these further analyses whenever differences among the "subjective elderly" and the "subjective middle-aged" groups are simultaneously complemented with similarities among the "subjective middle-aged" and the "actual middle-aged" groups, that is, when the two matched subjective age groups are more similar to each other than are the two matched chronological age groups.

#### Perceptions Of The Endorser

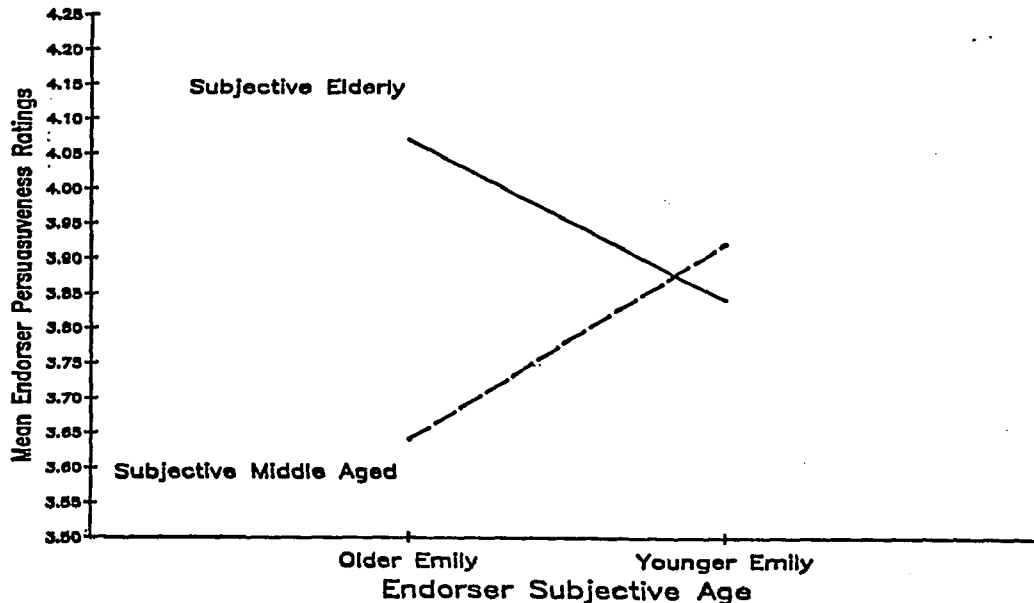
Respondents in both the "Older Emily" and "Younger Emily" endorser treatment conditions were asked to rate the catalog endorser on a series of personal attributes and to try to guess the chronological age of the endorser.

### Ratings Of Endorser On Personal Attributes

Hypothesis II, that "Older Emily" would be most persuasive to the "subjective elderly" while "Younger Emily" would be most persuasive to the "subjective middle-aged," was tested using three different measures of persuasion: ratings of endorser persuasiveness; purchase interest in the catalog products; and agreement to purchase the products. The latter two measures, which will be discussed later in this section, are somewhat closer to actual behavior on the attitude-behavior continuum than is the first measure. Nonetheless, endorser persuasiveness ratings do give an indication of the degree of rapport established between a given Subjective Age Identity group and the endorsers.

Differences in ratings of endorser persuasiveness were tested using a priori contrasts and, as Table 17 shows, Hypothesis II is supported for this measure at a near significant level. Among the "subjective elderly," the mean persuasiveness rating for "Older Emily" was higher than for "Younger Emily" ( $t = 1.28, p = .10$ ) while among the "subjective middle-aged," the mean persuasiveness rating for "Younger Emily" was higher than for "Older Emily" ( $t = -1.55, p < .07$ ). Figure 2 demonstrates this interaction.

Figure 2  
 Mean Endorser Persuasiveness Ratings  
 By Subjective Age Identity  
 And Endorser Subjective Age



The remaining endorser ratings in Table 17 show very few significant differences between the ratings of "Older Emily" versus "Younger Emily" among any of the three Subjective Age Identity groups. However, there is a trend for "Younger Emily" to be rated more positively on most attributes, particularly among the "subjective middle-aged" and "actual middle-aged" groups. Additionally, "Younger Emily" was rated more highly among the "subjective elderly" on the attribute "someone just like me" -- an unexpected

finding. Finally, regardless of endorser condition, mean endorser ratings for the "actual middle-aged" were considerably lower than for the "subjective elderly" or "subjective middle-aged."

Table 17

MEAN RATINGS OF THE ENDORSER ON A SERIES OF PERSONAL ATTRIBUTES ①  
(Among Those Exposed To An Endorser)

	SUBJECTIVE AGE IDENTITY x ENDORSER SUBJECTIVE AGE					
	SUBJECTIVE ELDERLY		SUBJECTIVE MIDDLE-AGED		ACTUAL MIDDLE-AGED	
	Older Emily	Younger Emily	Older Emily	Younger Emily	Older Emily	Younger Emily
<u>Sincere</u>						
$\bar{X}$	4.18	4.13	4.11	4.23	3.38	3.65
(SD)	(0.87)	(0.86)	(0.91)	(0.93)	(1.25)	(0.94)
<u>Persuasive</u>						
$\bar{X}$	4.07	3.84	3.64	3.92	3.18	3.29
(SD)	(0.75)	(0.97)	(1.03)	(0.80)	(1.16)	(0.97)
<u>Knowledgeable</u>						
$\bar{X}$	4.07	4.20	4.00	4.14	3.38	3.44
(SD)	(0.81)	(0.76)	(0.94)	(0.83)	(1.12)	(0.95)
<u>Likeable</u>						
$\bar{X}$	4.03	4.08	4.07	4.08	3.44	3.53
(SD)	(0.83)	(0.85)	(0.96)	(0.79)	(0.99)	(0.94)
<u>Believable</u>						
$\bar{X}$	3.93	4.06	3.77	4.04	3.23	3.44
(SD)	(0.66)	(0.76)	(1.01)	(0.99)	(0.98)	(0.90)
<u>Trustworthy</u>						
$\bar{X}$	3.92	3.96	3.91	4.06	3.02	3.37
(SD)	(0.86)	(0.87)	(1.01)	(0.94)	(1.03)	(0.92)
<u>Competent</u>						
$\bar{X}$	3.89	4.02	3.85	4.14	3.13	3.52
(SD)	(0.71)	(0.91)	(0.94)	(0.81)	(1.10)	(0.96)
<u>Someone Just Like Me</u>						
$\bar{X}$	2.80	3.40	3.07	3.23	2.32	2.40
(SD)	(1.28)	(1.15)	(1.36)	(1.34)	(1.33)	(1.04)
<u>Overall</u>						
$\bar{X}$	3.71	3.75	3.65	3.73	2.93	3.00
(SD)	(0.79)	(1.01)	(1.03)	(1.03)	(1.21)	(0.99)
<b>BASE</b>	<b>50</b>	<b>62</b>	<b>53</b>	<b>63</b>	<b>61</b>	<b>64</b>

① Scale goes from 1 = Does not describe at all to 5 = Describes extremely well

### Perceived Age Of Endorser

On the measure of perceived age of endorser, no significant differences emerged in perceptions of the endorser's chronological age between those who saw "Older Emily" versus those who saw "Younger Emily" across any of the Subjective Age Identity groups (Table 18). This confirms the pretest findings that the "two" endorsers (actually the same person photographed twice) were perceived as having equivalent chronological ages. Thus, this variable was held constant across treatment groups.

A look across Subjective Age Identity groups shows that the "subjective elderly" tended to perceive both endorsers as older than did either the "subjective middle-aged" or "actual middle-aged." The difference between the "subjective elderly" and the other two groups is significant ( $t = 2.73, p = .007$ ).

Table 18

PERCEIVED AGE OF ENDORSER ①  
 (Among Those Exposed To An Endorser)

	<u>SUBJECTIVE AGE IDENTITY GROUP:</u>		
	<u>Subjective</u> <u>Elderly</u>	<u>Subjective</u> <u>Middle-Aged</u>	<u>Actual</u> <u>Middle-Aged</u>
	<u>̄</u>	<u>̄</u>	<u>̄</u>
<u>Perceptions Of</u> <u>Chronological Age Of:</u>			
<u>"Older Emily"</u>			
<u>̄</u> (SD)	65 (12.96)	61 (16.34)	60 (16.88)
<u>"Younger Emily"</u>			
<u>̄</u> (SD)	66 (11.20)	64 (11.91)	61 (12.43)
<hr/>			
BASE	112	116	125
<hr/>			

① Means rounded to nearest integer

### Effect Of Endorser On Product Purchase Interest

As previously noted (see Table 7 above), the repeated measures MANOVA indicated no significant interaction between Subjective Age Identity and Endorser Subjective Age with regard to product purchase interest. Consequently, that analysis yielded no support for Hypothesis II. Likewise, even when we consider identification with an "appropriate" endorser (see Table 12), Hypothesis II is not supported in terms of purchase interest.

### Subjective Age Identity And Type Of Risk

Hypothesis III, that the "subjective middle-aged" group -- like the "actual middle-aged" group -- will be less cautious (i.e., show higher purchase interest in risky products) than the "subjective elderly" group, was tested via a repeated measures MANOVA on the full factorial design using product purchase interest as the dependent variable (see Table 7 above). Results of that MANOVA indicated significant main effects for Subjective Age Identity ( $F = 6.43, p = .002$ ) and Type Of Risk ( $F = 82.99, p < .001$ ).

Table 19a shows the mean purchase interest scores for the two significant main effects. A Scheffé post hoc analysis indicated that both the "subjective elderly" and

the "subjective middle-aged" showed higher overall purchase interest in the new products than did the "actual middle-aged" ( $p < .05$ ). The former two groups were not different from one another. A similar result was found when looking at perceptions of the type of risk associated with the new products: the "subjective elderly" and the "subjective middle-aged" perceived less product risk than did the "actual middle-aged" (Table 19b). These findings disconfirm Hypothesis III. In fact, the results show that people who are chronologically aged 65-79 are more willing than are much younger people (i.e., those aged 40-54) to try new products when such products are specifically targeted to them. This outcome is especially impressive in light of the fact that syndicated statistical data (i.e., Simmons and MRI) confirmed that in the absence of any experimental manipulation, the product categories to which respondents were exposed were not purchased differentially by the two chronological age groups who participated in the research (see Appendix A).

Table 19a

MEAN PURCHASE INTEREST RATINGS OF  
SUBJECTIVE AGE IDENTITY AND TYPE OF RISK ①

	<u>SUBJECTIVE AGE IDENTITY GROUP:</u>			
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>	
<u>Type Of Risk</u>				
Social/ Psychological	2.73	2.72	2.51	2.65
Functional/ Physical	2.87	2.90	2.74	2.84
No Risk	3.38	3.43	2.99	3.27*
	2.99*	3.02*	2.75	
BASE	183	198	194	

\* Significantly different from other groups (p < .05)

① Scale goes from 1 = definitely would not buy to  
5 = definitely would buy

Table 19b

MEAN PERCEIVED RISK RATINGS BY TYPE OF RISK EXPERIENCED ①

	<u>SUBJECTIVE AGE IDENTITY GROUP:</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
<u>Type Of Risk Experienced</u>			
Social/Psychological Risk	3.07	2.98	3.20
Functional/Physical Risk	3.33	3.22	3.99
Total Perceived Risk	3.20	3.10	3.59
BASE	183	198	194

① Across all products

A Scheffé test was also conducted to determine which group or groups within Type Of Risk produced the significant main effect. The analysis found that no-risk products generate higher purchase interest than do risky products ( $p < .05$ ), a finding which essentially serves as a check on the experimental treatment (Table 19a).

As was done for respondent demographics, a verification procedure was conducted to ensure that the responses of neither the "subjective elderly" nor the "subjective middle-aged" group were different across the three chronological age subgroups from which each was comprised (i.e., those aged 65-69, 70-74, and 75-79). Table 20 indicates no significant differences in purchase interest between chronological age subgroups within either Subjective Age Identity group. This finding provides further justification for considering the age distribution within a given Subjective Age Identity group to be inconsequential.

Table 20

MEAN PURCHASE INTEREST RATINGS  
AND STANDARD DEVIATIONS ACROSS PRODUCTS BY CHRONOLOGICAL  
AGE SUBGROUPS WITHIN SUBJECTIVE AGE IDENTITY GROUPS

	CHRONOLOGICAL AGES OF "SUBJECTIVE ELDERLY" GROUP			
	<u>Total</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>
<hr/>				
<u>Purchase Intent</u>				
<u>Across Products</u>				
$\bar{X}$	2.99	2.92	3.04	3.02
(SD)	(.8107)	(.8026)	(.7747)	(.8860)
<hr/>				
BASE	183	67	71	45
<hr/>				
	CHRONOLOGICAL AGES OF "SUBJECTIVE MIDDLE-AGED" GROUP			
	<u>Total</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>
<hr/>				
<u>Purchase Intent</u>				
<u>Across Products</u>				
$\bar{X}$	3.02	3.08	2.94	2.93
(SD)	(.8453)	(.8327)	(.8831)	(.8131)
<hr/>				
BASE	198	114	61	25
<hr/>				

The four-way repeated measures MANOVA (see Table 9 above), as did the three-way repeated measures MANOVA which did not include the Identification With Endorser factor (see Table 7 above), found significant main effects for Subjective Age Identity ( $F = 6.61, p = .002$ ) and for Type Of Risk ( $F = 44.87, p < .001$ ). These findings were similar to those already mentioned: that the "subjective elderly" and the "subjective middle-aged" showed higher overall purchase interest in the new products than did the "actual middle-aged," and that no-risk products generated higher purchase interest than did risky products.

Subjective Age Identity And Type Of Risk When  
Subjective Age Identity Matches Endorser Subjective Age

As Table 19a above indicates, there are no significant differences in purchase interest between products which represent a social/psychological risk and products which represent a functional/physical risk within either the "subjective elderly" or the "subjective middle-aged" groups. Consequently, these data do not support Hypotheses IVa and IVb (that the "subjective middle-aged" will be relatively unlikely to buy products which they perceive as high in social/psychological risk while the "subjective elderly" will be relatively unlikely to buy products which

they perceive as high in functional/physical risk). However, it was believed that the predicted effect might be revealed under the condition in which a given Subjective Age Identity group was exposed to an "appropriate" endorser, i.e., an endorser whose subjective age matched the subjective age of the respondent. This analysis seems warranted since the "appropriate" endorser was the same one rated as most persuasive by each Subjective Age Identity group (see Table 17 above).

Accordingly, mean purchase interest scores were calculated for each Type Of Risk category among those exposed to an endorser who matched their subjective ages, that is, among those "subjective elderly" who were exposed to "Older Emily" and among those "subjective middle-aged" (as well as those "actual middle-aged") who were exposed to "Younger Emily." A series of a priori contrasts were conducted which showed that both the "subjective middle-aged" ( $t = -1.98$ ,  $p < .02$ ) and the "actual middle-aged" ( $t = -3.16$ ,  $p = .001$ ) were significantly less likely to be interested in buying products which represent a high social/psychological risk, while the "subjective elderly" were not significantly but were directionally less likely to be interested in buying

products which represent a high functional/physical risk (Table 21). These data indicate that alternate forms of Hypotheses IVa and IVb are supported when the hypotheses are made more specific, that is, when an "appropriate" endorser (one who matches a respondent's subjective age) is employed to bring out this effect.

Table 21

MEAN PURCHASE INTEREST RATINGS BY  
TYPE OF RISK AMONG THOSE WHO SAW AN ENDORSER  
WHO MATCHED THEIR SUBJECTIVE AGE IDENTITY

	<u>SUBJECTIVE AGE IDENTITY X</u> <u>ENDORSER SUBJECTIVE AGE</u>		
	<u>"Subjective Elderly" Exposed To "Older Emily"</u>	<u>"Subjective Middle-Aged" Exposed To "Younger Emily"</u>	<u>"Actual Middle-Aged" Exposed To "Younger Emily"</u>
<u>Type Of Risk</u>			
Social/Psychological	3.06	2.66	2.60
Functional/Physical	2.95	2.95	3.06
No Risk	3.37	3.48	2.91
<hr/>			
BASE	50	63	64
<hr/>			

### Behavioral Measure

About a month after receipt of respondents' completed questionnaires, an attempt was made to recontact all respondents by telephone to measure their willingness to actually purchase the six products described in the mail catalog. Specifically, each respondent was told that they could at that time place an order to purchase any or all of the new products from the catalog for \$4.95 each. (Of course, respondents were debriefed immediately after they "placed their order.") A total of 550 respondents participated in the callback interview, which represents 96% of the total sample.

The data show no significant differences between or within Subjective Age Identity groups on actual purchase of any of the product types (Table 22). This may have occurred because of the length of time which elapsed between receipt of the respondents' questionnaires and the callback (i.e., it is quite possible that many did not remember the original product descriptions). Likewise, there were no differences between or within Subjective Age Identity groups by Endorser Subjective Age or by Identification With Endorser, probably

because whatever effects the endorser had on respondents had since dissipated. These assumptions seem plausible considering how few respondents were willing to purchase any of the products.

Table 22

ACTUAL PURCHASE OF NEW PRODUCTS AMONG CALLBACK RESPONDENTS ①

<u>Type Of Product</u> <u>Actually Purchased</u>	<u>SUBJECTIVE AGE IDENTITY GROUP</u>		
	<u>Subjective</u> <u>Elderly</u>	<u>Subjective</u> <u>Middle-Aged</u>	<u>Actual</u> <u>Middle-Aged</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Social/Psychological Risk	16	16	19
Functional/Physical Risk	21	18	17
No Risk	21	20	22
<b>BASE</b>	<b>178</b>	<b>186</b>	<b>186</b>

① Conducted one month after receipt of the completed questionnaires.

Summary Of Statistically Significant Findings

Table 23 provides a summary of similar response patterns between those whose subjective ages match (i.e., the "subjective middle-aged" and the "actual middle-aged") and between those whose chronological ages match (i.e., the "subjective middle-aged" and the "subjective elderly").

Table 23

SUMMARY CHART: SIMILARITY OF RESPONSE BETWEEN  
CHRONOLOGICAL AGE GROUPS VERSUS SUBJECTIVE AGE GROUPS

	<u>SUBJECTIVE AGE IDENTITY</u>		
	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
Endorser Persuasiveness Ratings ①②		X	X
Perceived Age Of Endorser ①		X	X
Purchase Interest For Functional/Physical Risk Products Versus Social/Psychological Risk Products ①④		X	X
<u>Measures By Identification Versus Lack Of Identification With Endorser</u>			
Purchase Interest ①		X	X
Endorser Ratings ①		X	X
Catalog-Buyer Image Ratings ①		X	X
Purchase Interest Across Products ③	X	X	
Perceived Risk Ratings ③	X	X	

X = Indicates rating similarity

Note: The "subjective elderly" and the "subjective middle-aged" are in the same chronological age group and the "subjective middle-aged" and "actual middle-aged" are in the same subjective age group.

- ① Provides support for relationships which would be predicted by Hypothesis I
- ② Provides support for relationships which would be predicted by Hypothesis II
- ③ Does not provide support for Hypothesis III
- ④ Provides support for relationships which would be predicted by Hypotheses IVa and IVb

## CHAPTER V

### DISCUSSION

#### Key Findings And Associated Issues

The main goal of the present investigation was to extend previous research on the demographic or psychological correlates of a younger-than-chronological age perception by focusing on the attitudinal and behavioral implications of such a perception. Specifically, the current study addressed the issue of whether or not the subjective age of older consumers is more predictive of how they might react to a persuasive communication than is their chronological age. Moreover, the current study explored whether these consumer reactions vary as a function of how the communication is delivered and which product categories are the subjects of the communication.

The research found considerable support for the viability of the subjective age construct since, in most analyses of consumer responses, it was the two matched subjective age groups (i.e., the "subjective middle-aged" and the "actual middle-aged") who behaved similarly rather than the two matched chronological age groups (i.e., the

"subjective middle-aged" and the "subjective elderly"). Within this finding, several ancillary hypotheses and expected concomitants of subjective age were also confirmed. Specifically, differentiation was found between those who are chronologically aged 65-79 and subjectively in their 60's or 70's versus those who are chronologically aged 65-79 but subjectively in their 40's or 50's in terms of: (1) which endorser they found most persuasive (the "subjective elderly" found "Older Emily" to be most persuasive while the "subjective middle-aged" found "Younger Emily" to be most persuasive); (2) their reactions to the different product risk categories (the "subjective elderly" were directionally less likely to show interest in products which represented a functional/physical risk while the "subjective middle-aged" were significantly less likely to show interest in products which represented a social/psychological risk); and (3) demographic differences, which have previously been noted in the literature (the "subjective elderly" were less likely than the "subjective middle-aged" to rate their health as excellent or very good, to be employed, to be college educated, or to have relatively high household incomes).

A key variable which moderated the relationship between Subjective Age Identity and the main criterion measure in the research -- purchase interest in new products -- was Identification With Endorser. Surprisingly, only about half the total sample reported identification with the endorser to whom they were exposed, with not much difference in rate of identification by whether or not the endorser matched with one's same Subjective Age Identity. Nonetheless, the similarities between the "subjective middle-aged" and "actual middle-aged" are both magnified and extended when these groups are delineated according to the identification variable, particularly in those cases where Subjective Age Identity and Endorser Subjective Age matched. These results establish that identification with an endorser is a critical factor when measuring the effects of a persuasive communication, a finding which is consistent with previous research (Schiffman and Kanuk, 1983; Markin, 1974; Freedman, Carlsmith, and Sears, 1974).

Considering the significance of the identification variable, an important question arising from this research is why more people did not identify with the endorser they saw. While there is no definitive answer to this question, some speculation is possible based on the research findings

and methodology. With regard to the research findings, a series of regression analyses were conducted to ascertain which attitudinal or demographic variables were the best predictors of identification with an endorser of one's same subjective age. These analyses were conducted with the intent of finding variables which foster identification with "Younger Emily" among the "subjective middle-aged" and the "actual middle-aged." (The "subjective elderly" were excluded from the analysis since identification with an endorser had virtually no impact on their purchase interest.) The regression data suggested that respondents' attitudes toward an endorser and toward mail-order catalogs are more related to identification than are respondents' demographic characteristics. Specifically, the regression analyses indicated that increasing the endorser's believability and persuasiveness and increasing the perception that the mail-order catalog is suited to intelligent and lively women should produce increased identification with "Younger Emily." In contrast, further analysis showed that none of the demographic variables measured in the research (i.e., health, marital status, employment status, educational background, or annual household income) were significantly associated with identification. Nonetheless, it may be that

other demographic (e.g., race, region, etc.) or attitudinal variables which were not included in the current investigation might be helpful in predicting identification.

Methodological considerations may also have constrained the extent of respondents' identification with an endorser. For example, it could be that the study's use of a mail-order catalog may have decreased the likelihood of identification occurring. That is, perhaps a stronger bond would have developed between subject and endorser had the persuasive stimulus been in televised live-action rather than print form or had there been more control in the experimental setting on the amount of exposure time one had to the endorser. On the other hand, identification with any endorser is a complex psychological phenomenon and it is doubtful, considering the obvious heterogeneity of people over 65 years of age, that anything close to complete identification could have been achieved.

Another important question raised by the findings on identification is: why didn't the "subjective elderly" (that is, those who are both chronologically and subjectively in their 60's or 70's) show significant differences in response when they identified with an endorser versus when they did not identify? One possibility is that identification is not a relevant construct for the "subjective

elderly." This suggestion is based on the concept of increased preoccupation among some older people with the internal rather than the external world. Identification is a social concept which depends on interaction between a person and someone outside of himself or herself. A well-documented finding in literature on personality change with age suggests that fostering a socially-based feeling like identification may be very difficult to accomplish with older people because many adults become more introverted and attentive to their inner selves rather than to outside influences as they get older (Reedy, 1983; Neugarten, 1977; Botwinick, 1978; Chown, 1968; Riley and Foner, 1968). One could speculate, given the established correlates of a subjectively older age perception (e.g., lower SES, relatively low levels of activity, external locus of control, poorer health, etc.), that the "subjective elderly" are the least likely of any of the Subjective Age Identity groups in the research to be attentive to the social world. The question then becomes: Why did about half the "subjective elderly" claim identification with an endorser? It may be that whatever identification they did claim was largely due to "yea saying." (For example, the relatively high level of identification with "Younger Emily" on the part of the "subjective

elderly" may be a matter of wishful thinking.) A response bias is suspected in this case since there are few tangible behavioral correlates of Identification With Endorser among the "subjective elderly."

A third question which is raised by the findings on identification is: what is the likelihood that the observed effects of identification with "Younger Emily" among the "subjective middle-aged" and "actual middle-aged" and the lack of any effect of identification with "Older Emily" among the "subjective elderly" might be due to differential appeal of the two endorsers rather than to differences in the endorsers' subjective ages? In other words, was "Younger Emily" simply more appealing than "Older Emily," regardless of how respondents perceived an endorser's subjective age? The data indicate that there is no reason to believe that the two endorsers differed in appeal. First, the "two" endorsers were actually the same woman photographed with different clothing and makeup to alter her subjective age. The photographs were carefully selected to capture the same expression on the woman's face to ensure that the "endorsers" did not differ on factors other than subjective age. Second, there were no significant differences in purchase interest within any Subjective Age Identity group on the basis of whether one identified with

"Older Emily" or "Younger Emily." Finally, subjects were not much more likely to identify with "Younger Emily" than "Older Emily," which implies that one endorser was not more appealing than the other.

One of the research hypotheses concerning expected differences between the "subjective elderly" and the "subjective middle-aged" received only partial support. It was found, as predicted, that a subjectively elderly endorser ("Older Emily") was rated as most persuasive by the "subjective elderly" group and a subjectively middle-aged endorser ("Younger Emily") was rated as most persuasive by the "subjective middle-aged" group. However, these differences in endorser persuasiveness ratings did not carry over to other persuasion measures, such as purchase interest in the new products. More specifically, for both the "subjective elderly" and the "subjective middle-aged," purchase interest was not significantly higher among those who were exposed to an "appropriate" endorser (one whose subjective age matched the respondent's subjective age) versus those who were exposed to an "inappropriate" endorser. (It should be noted, however, that when identification with the "appropriate" endorser occurred, the predicted trend toward increased purchase interest among the "subjective middle-aged" was evident.) In other words, the predicted effect of

exposure to an endorser of one's own subjective age appears as an expression of attitude (endorser persuasiveness ratings) rather than as an expression of intended behavior (purchase intent). Theoretically, these findings are not surprising in that attitudes often fail to predict behavior (LaPiere, 1934; Gross and Niman, 1975; Wicker, 1969). More practically, however, the research results suggest that an initial rapport between subject and endorser was established, and that in order to effect a concurrent change in behavior, certain variables in the experimental treatment may need to be further controlled (e.g., making the content of the endorser's message more personal, strengthening the link between the endorser and the products she is endorsing, etc.). Indeed, these controls may also enhance the likelihood of identification with the endorser.

The discussion thus far has focused on the subjective age phenomenon, however, it is important to note that there was one key finding for which chronological age overwhelmed subjective age: those aged 65-79, regardless of subjective age, were more willing to try new products and perceived less risk in the new products than did those aged 40-54. (Previous research has also found that an inverse relationship exists between perceived risk and innovativeness among older consumers -- see Schiffman, 1976). Although this result was not in the predicted direction, it is encouraging

to find that older people are willing to try new products if those products are specifically targeted to them via an endorser who is chronologically older and who uses language that is appropriately worded for communication with the elderly. This outcome is especially impressive in light of the fact that syndicated survey data consulted prior to execution of the research confirmed that the product categories to which respondents were exposed are not purchased differentially by the two chronological age groups who participated in this study. In other words, the new products in the research were not "products for older people"; instead, they were commonly-used products which were apparently made more appealing to older people via the experimental treatment.

Nonetheless, the finding that older people were more interested than were younger people in buying the new products is contrary to previous literature which provides evidence that older people are more cautious (Botwinick, 1978) and more reluctant than are younger people to try new products (Phillips and Sternthal, 1977). Differences in method may account for this inconsistency. In the earlier research, much of the evidence for increased cautiousness with age is based on responses of older people to standardized personality inventories (usually the Choice Dilemmas

Questionnaire, which measures degrees of risk-taking), and this research typically finds that older people are more likely than younger people to avoid making decisions at all when those decisions involve risk (Botwinick, 1978; Calhoun and Hutchison, 1981). The current research provided a more natural, consumer-oriented setting for respondents, and other aspects of the experimental situation (e.g., measurement of intent to purchase rather than actual purchase; offer of incentives for participating; etc.) made reluctance to decide an unlikely event. Previous research suggests that under such relatively natural conditions where older people are provided with sufficient information about products, they are more receptive to the products (Bikson and Goodchilds, 1979). Furthermore, Botwinick (1978) finds that when the option for inaction is eliminated from the decision-making process, older subjects take as many risks as do younger subjects. Thus, there is reason to believe that when older people feel comfortable in a decision-making situation, they should be as flexible as any other age group.

## Implications And Applications

### Theoretical Implications

The findings of the current research provide illumination on some often-cited theoretical issues in the gerontological literature. One such issue is age-related change versus consistency of personality development. Some authors have focused on the many social, biological, and psychological changes that occur during the aging process. Other authors have pointed to certain central aspects of the personality system (e.g., traits, cognitive styles) as well as many social roles and biological processes that seem to remain relatively stable throughout the course of adulthood. Not surprisingly, therefore, data on change versus stability in adult personality development have typically been inconsistent (Reedy, 1983; Neugarten, 1977; Kimmel, 1980). Current thinking is that although certain aspects of personality -- e.g., increased introversion and a shift from active to passive mastery -- appear to change with age, research generally supports the concept of a relative stability of personality during the aging process (Reedy, 1983; Birren et al, 1981). The present investigation further supports the idea of stability of personality in old

age by demonstrating that those elderly with a younger-than-chronological perceived age maintain attitudes and interests that most closely resemble those of younger people. Considering that the vast majority of people aged 65 and over actually feel much younger than their chronological age (demonstrated by both the current study and by much previous research), the present research suggests that subdividing older people on the basis of their Subjective Age Identity in future investigations of stability versus change in adult personality development might lead to more consistent findings.

Another theoretical issue addressed by the current research is the extent to which personal perceptions influence attitudes and behavior in old age. Many psychodynamic and ego psychology theorists suggest that psychological well-being in old age is more a function of an individual's self-perception of life experiences than it is a function of "objective markers" such as biological decline (Buhler and Massarik, 1968; Erikson, 1963; Peck, 1968). Additionally, other theories such as the "cognitive" theory of the aging process described by Thomae (1979, 1970) and Neugarten's concept of a "social clock" (as cited in Kimmel, 1980) suggest that knowing an individual's subjective assessment

of a situation, regardless of the objective occurrence, is most helpful for predicting age-related changes in attitudes and/or behavior. The present study provides empirical evidence to support the notion that subjective perception of age is more closely associated with life situations (e.g., health, income, employment, etc.) and attitudes than is chronological age.

An additional contribution of the current investigation is that the measurement of subjective age perception was done via a new technique which has promising reliability<sup>⊛</sup> (see Appendix A for data on test-retest reliability) and which proved to be valid (the technique used to differentiate a chronological cohort by Subjective Age Identity produced significant effects in the predicted direction and similar to those found by other research). The new easy-to-administer technique can certainly be used in future explorations of implications of subjective age on attitudes and behavior other than consumer behavior.

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⊛ Reliability of the technique is referred to as "promising" since the test/retest reliability measurement was done via a relatively small sample. However, there is some additional reliability testing which was built into the research in that a period of time invariably passed between the measurement of subjective age and exposure to the stimulus (usually between two and four weeks). As was evident, the subjective age measurement formed meaningful and consistent groupings despite this passage of time, lending further support to the reliability of the technique.

### Implications For Communicating With Older Consumers

This study investigated consumer behavior in the elderly, and thus the results have particular implications for marketers who wish to communicate effectively with older people. Recent literature on marketing to the elderly is replete with "horror stories" about unsuccessful attempts to sell products to older consumers (Lazer, 1986; Conlin, 1986; Sugarman, 1985; Visvabharathy and Rink, 1986; Kirkeby, 1980; Garfield, 1984; Sutherland, 1984). Often, the marketing strategy in these failed efforts is to sell commonly used products or specialty products to older people by positioning them as specifically for older people. Some examples are H.J. Heinz's "senior foods," a line of soft foods for older people with chewing problems which did not succeed (Garfield, 1984; Sutherland, 1984) and Johnson & Johnson's Affinity shampoo, which was failing in the marketplace until it ceased being marketed as a shampoo for "older hair" (Conlin, 1986). These unsuccessful marketing attempts are not surprising in light of the current findings and previously cited research on perceived age, which predict that chronologically older but subjectively younger consumers (i.e., the vast majority of older consumers) will reject appeals which are clearly targeted at older people. Nonetheless, such negative experiences make many manufacturers

reluctant to market products to older consumers. Moreover, this hesitation about marketing to older people is magnified by a common advertisers' fear that using older people as a target will alienate the young (Visvabharathy and Rink, 1986).

A key finding of the present study was that marketers can indeed retain younger consumers while marketing effectively to older ones. The research demonstrates that a chronologically older role model whose subjective age is well below 65 and with whom consumers have rapport is an effective advertising endorser for both older consumers and younger ones. Conversely, use of a subjectively elderly role model does not increase persuasibility among older consumers and may cause a strong negative reaction in younger consumers.

Some marketers have already recognized that many older consumers feel younger than their chronological age would suggest (Business Week, 1971; Kotler, 1976; Gage, 1980). But these marketers have often assumed that an appropriate advertising approach for the elderly market is to present an endorser of a younger chronological age (Advertising Age, 1987). The present research shows, however, that an

endorser who is chronologically older but subjectively younger will establish an effective rapport with older consumers and might well be more effective than a chronologically younger endorser.

An additional implication of the current study for marketers is that older people should not be perceived as being reluctant to try new products. The research shows that a sensitive, relevant appeal will encourage older people to try products -- even when those products are not mainly for older people. Indeed, the extent to which an appeal can create a positive self-image in older people (i.e., through identification with a subjectively younger spokesperson) may be highly related to product purchase interest.

#### Implications For Societal Stereotyping Of Old Age

Stereotyping of people on the basis of age is a common occurrence in our society. Unfortunately, the stereotypes of older age groups are often negative: old age is perceived by many as a period of isolation, poor health, and dependency (Nardi, 1973; Louis Harris And Associates, 1976; Ward, 1979; Kimmel, 1980; Sherman, 1986). These societal stereotypes are very difficult to displace because, as is frequently the case with myths or stereotypes, they contain some degree of truth -- albeit exaggerated or attended to selectively.

Two particularly damaging stereotypes, both of which are indirectly addressed by the current study, are that: (1) people aged 65 and over are "old," and (2) all "old" people are alike in the above-mentioned negative ways. As the present research and much previous research attests, the first stereotype is largely inaccurate in that most people aged 65 and over do not consider themselves to be "old."<sup>⊛</sup> This implies that these people will also not behave like "old" people -- not in their consumer behavior, as the present study demonstrates, and likely not in other spheres of attitudes, behaviors, and values. Clearly, if our society persists in classifying an over-65-year-old person as "old" while he or she classifies himself or herself as "young" or "middle-aged," many needless social and psychological problems will be created. One unfortunate outcome of these discrepant perceptions of age is a resultant barrier between younger and older people which prevents these different chronological age groups from enjoying each other as peers. A second unnecessary outcome is that younger people are separated from their own futures in that they are encouraged to feel a sense of anxiety and threat about what it means to be chronologically "old."

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⊛ Indeed, the largest group of respondents aged 65 and over who were screened for participation in the current research were those who felt as if they were in their 20's or 30's! These people were not included in the current investigation because they did not meet the defined criteria; however, future research should investigate the attitudes and behavior of this group.

With regard to the second stereotype (that all "old" people are alike and share negative characteristics such as poor health or social isolation), the present research confirms that chronological age encompasses a wide variety of individual differences. The concept of subjective age provides an important means for differentiating among people aged 65 and over\* and argues for the heterogeneity of this age group. Moreover, the study confirmed that these "subjectively young" older people tend to share many positive characteristics, such as good health and high levels of activity. Indeed, it is becoming increasingly apparent that today's older role models -- from Arthur Rubinstein to Ronald Reagan -- could come to represent the norm rather than the exception for older people in our society.

In short, the current research adds to the growing body of evidence which indicates that the attitudes and behavior of the vast majority of older people -- the subjectively young -- do not adhere to society's stereotypes. Indeed, even the subjectively elderly people in the research did not behave stereotypically, as evidenced by their willingness

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\* It should be noted that subjective age provides but one example of the diversity of older people. There are many other possible subdivisions, including other self-perceptions besides age. Subsequent research should identify other relevant subgroups within the chronological elderly and examine their influences on behavior.

to try new products. As more data become available, these stereotypical misconceptions about aging will have to be revised. These revisions will, in turn, influence our attitudes, policies, and behavior toward older people. Specifically, as society abandons an emphasis on chronological age and recognizes subjective age as a key determinant of attitudes and behavior, fear of the aging process should decline rapidly. Perhaps most importantly, these new societal attitudes will foster a positive self-concept in older people themselves and increase the likelihood that they remain happy and productive members of society.

**APPENDIX A:**  
**Pretest Measures**

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APPENDIX A: PRETEST MEASURES

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Each of the independent and dependent variables in the research was subjected to the following selection and pre-testing procedures.

A. Subjective Age Identity

The measure of Subjective Age Identity devised for this research (see Screening Questionnaire in Appendix C) was pretested for test-retest reliability. Between March 14-15, 1985, telephone interviews were completed with 25 women selected at random from the Denver, Colorado telephone directory. These respondents, all of whom answered the two questions which measured their actual and subjective ages, belonged to the following Subjective Age Identity groups: Nine (9) were aged 65-79 and perceived themselves to be in their 60's or 70's, five (5) were aged 65-79 but perceived themselves to be in their 40's or 50's, and eleven (11) were aged 40-54 and perceived themselves to be in their 40's or 50's.

About two months later, between May 10-11, 1985, follow-up telephone interviews were conducted with 16 of the 25 women. The follow-up interviews repeated the Subjective Age Identity measure with the following introductory comment:

"We spoke with you a couple of months ago and asked you a few questions about the way you feel about your age. I have just one more question I need to ask."

In total, 12 of the 16 women reached on the follow-up interview gave the same response to the Subjective Age Identity measure as they had two months earlier. A binomial test (McNemar, 1969) indicated that 12 out of 16 correct is significantly above chance ( $p = .04$ ). Of course, future research should test this measure with larger samples to corroborate this finding.

## B. Endorser Subjective Age

The two endorser conditions used in this research -- the chronologically and subjectively elderly endorser and the chronologically elderly but subjectively middle-aged endorser -- were actually the same woman photographed twice with similar facial expressions but with jewelry and makeup alterations to vary her subjective age. (The photography was conducted at the studios of Jerry Simpson, Inc. and the model used was in actuality 70 years of age). A pretest was conducted to verify that the two photographs portrayed endorsers of the same chronological age but of different subjective ages, i.e., the endorsers' subjective age should have been perceived as substantially younger in the "subjective middle-aged" photograph than in the "subjective elderly" photograph. The two photographs were presented to 30 people (order of photograph presentation was rotated) and for each photograph the following two questions were asked:

1. "How old is this woman?"
2. "How old does this woman feel that she is?"

Interestingly, even upon presentation of both photographs, many did not realize that the women in the photographs were actually the same person.

The pretest findings confirmed that while the perceived chronological ages of the two endorsers were similar, the perceived subjective ages varied in the predicted direction.

MEANS OF PERCEIVED  
CHRONOLOGICAL AGE AND SUBJECTIVE AGE OF ENDORSER ①

	<u>Chronological Age</u>	<u>Subjective Age</u>
<u>Subjective Elderly Endorser</u>		
$\bar{X}$	70	67
<u>Subjective Middle-Aged Endorser</u>		
$\bar{X}$	68	<span style="border: 1px solid black; padding: 2px;">55</span>
<hr/>		
BASE: 30		

Note: Photographs presented in rotated order, no differences by rotation.

① Means rounded to nearest integer

= For emphasis

C. Type Of Risk

1. Selection Of Products

The key criterion for product selection was that the existing product categories from which the new products would be formed must not be used at dramatically different rates by middle-aged versus elderly people. In this way, there would be no reason to suspect at the outset that there are age differences in the degree of risk which is associated with these products in the absence of a manipulation. The second criterion for product selection was that the products be relatively inexpensive, since all products in the catalog were to be priced at \$4.95.

Two sources of syndicated statistical data were consulted: Mediamark Research, Inc. (MRI), Spring 1983 and Spring 1984 and Simmons Market Research Bureau, Inc., 1984. Both surveys are conducted yearly among about 20,000 consumers and provide detailed demographic and purchase behavior information for various product categories.

According to these syndicated sources, usage of the product categories from which the new products were formed was as follows:

PRODUCT USAGE AMONG WOMEN AGED 35-54 AND 65+

<u>Selected Product Categories</u>	USAGE	
	AMONG WOMEN AGED:	
	<u>35-54</u>	<u>65+</u>
	<u>%</u>	<u>%</u>
Crackers ①	85	82
Playing cards ②	32	21
Gloves ②	12	6
Costume jewelry ②③④	13	4
Oven cleaners ①	56	50
Vitamins ①	49	47
(Indigestion Aids/ Upset Stomach Remedy)	(48)	(56)

- 
- ① Purchased/used product within past six months
  - ② Purchased/used product within past year
  - ③ Drawn from Simmons, all others drawn from MRI
  - ④ All adults, all others women only

## 2. Pretest Of Products

The Jacoby and Kaplan (1972) perceived risk scale was administered to 12 adults in order to confirm that each of the products which were to be used in the research represented the appropriate Type Of Risk condition as hypothesized. A total of eight products were rated; two were dropped from the study as the pretest found them to be not representative of a risk category.

The mean ratings of the products on the basis of type of risk were:

### MEAN OF PERCEIVED RISK RATINGS BY PRODUCT ①

<u>Product:</u>	<u>TYPE OF RISK:</u>			
	<u>Social</u>	<u>Psychological</u>	<u>Functional</u>	<u>Physical</u>
Crackers	1.75	1.88	2.22	1.67
Cards	1.63	2.13	3.75	2.88
Gloves	5.02	6.89	3.11	1.56
Bracelet	4.25	8.29	3.89	3.44
Oven cleaner	2.25	4.75	5.78	5.33
Vitamins	3.00	6.06	7.44	7.11

BASE: 12

① Measured on a 1-10 scale where 1 = low perceived risk and 10 = high perceived risk.

= For emphasis

APPENDIX B:  
Manipulation Checks

APPENDIX B

Table 1

MATRIX OF ACTUAL AGE x SUBJECTIVE AGE  
(Number Of Subjects Per Condition)

		<u>SUBJECTIVE AGE</u>			
		<u>40's</u>	<u>50's</u>	<u>60's</u>	<u>70's</u>
<u>ACTUAL AGE</u>	40 - 44	58	1		
	45 - 49	53	1		
	50 - 54	58	23		
	65 - 69	28	86	63	4
	70 - 74	11	50	53	18
	75 - 79	3	20	18	27

BASE: 575

- ① Group 1, the "Subjective Elderly"
- ② Group 2, the "Subjective Middle-Aged"
- ③ Group 3, the "Actual Middle-Aged"

APPENDIX B

Table 2

PERCEIVED AGE OF ENDORSER ①  
(By Subjective Age Identity Group)

	<u>SUBJECTIVE AGE IDENTITY GROUP:</u>			
	<u>Total</u>	<u>Subjective Elderly</u>	<u>Subjective Middle-Aged</u>	<u>Actual Middle-Aged</u>
<u>Perceptions</u>				
<u>Of Chrono-</u>				
<u>logical Age Of:</u>				
<u>"Older Emily"</u>				
$\bar{X}$	62	65	61	60
(SD)	(15.70)	(12.96)	(16.34)	(16.88)
<u>"Younger Emily"</u>				
$\bar{X}$	64	66	64	61
(SD)	(11.99)	(11.20)	(11.91)	(12.43)
<hr/>				
BASE ②	353	112	116	125
<hr/>				

Note: T-tests indicate no significant differences in perceptions of chronological age of "Older Emily" vs. "Younger Emily" among total sample nor by any Subjective Age Identity group.

① Means rounded to nearest integer

② Among those who saw an endorser

APPENDIX B

Table 3

MEANS AND STANDARD DEVIATIONS  
FOR PERCEIVED RISK RATINGS BY PRODUCT ①  
 (Total Sample)

<u>PRODUCT:</u>	<u>TYPE OF RISK:</u>			
	<u>Social</u>	<u>Psychological</u>	<u>Functional</u>	<u>Physical</u>
<u>Bracelet</u>				
$\bar{X}$	3.01	4.52	4.35	2.25
(SD)	(2.75)	(3.12)	(2.75)	(2.08)
<u>Gloves</u>				
$\bar{X}$	3.01	4.18	4.02	1.84
(SD)	(2.74)	(3.02)	(2.57)	(1.75)
<u>Vitamins</u>				
$\bar{X}$	2.57	4.55	5.08	5.30
(SD)	(2.47)	(3.15)	(2.70)	(2.82)
<u>Oven Cleaner</u>				
$\bar{X}$	2.31	3.55	4.64	5.46
(SD)	(2.40)	(3.00)	(2.73)	(2.78)
<u>Playing Cards</u>				
$\bar{X}$	2.20	2.82	2.74	1.52
(SD)	(2.28)	(2.77)	(2.22)	(1.44)
<u>Crackers</u>				
$\bar{X}$	2.10	2.80	3.37	2.77
(SD)	(2.10)	(2.52)	(2.34)	(2.32)

BASE: 575

① Measured on a 1-9 scale where 1 = low perceived risk and 9 = high perceived risk.

☐ = For emphasis

APPENDIX B

Table 4

MEANS AND STANDARD DEVIATIONS  
FOR PERCEIVED RISK RATINGS BY RISK CATEGORY  
 (Total Sample)

	<u>TYPE OF RISK:</u>			
	<u>Social</u>	<u>Psychological</u>	<u>Functional</u>	<u>Physical</u>
<u>RISK CATEGORY:</u>				
<u>Social/ Psychological</u> ①				
$\bar{X}$	3.01	4.29	4.11	2.01
(SD)	(2.51)	(2.67)	(2.21)	(1.65)
<u>Functional/ Physical</u> ②				
$\bar{X}$	2.41	3.96	4.73	5.35
(SD)	(2.15)	(2.67)	(2.32)	(2.49)
<u>No Risk</u> ③				
$\bar{X}$	2.19	2.81	2.97	2.10
(SD)	(1.91)	(2.16)	(1.94)	(1.60)

BASE: 575

- ① Bracelet and gloves
- ② vitamins and oven cleaner
- ③ playing cards and crackers

= For emphasis

APPENDIX C:  
Stimuli And Questionnaire Materials

**SCREENER**

**FEMALES ONLY**

**SCREENING QUESTIONNAIRE**

Hello, my name is \_\_\_\_\_ from Oxtoby-Smith, a national marketing research firm. May I speak with the lady of the house? (WHEN LADY OF THE HOUSE IS AVAILABLE, CONTINUE). We are conducting a brief survey among women in your area and would like to ask you a few questions.

a. First of all, into which of the following categories does your age fall? (READ LIST)

- |            |    |       |               |
|------------|----|-------|---------------|
| UNDER 18   | 12 | [ ]-1 |               |
| 18 - 29    |    | [ ]-2 | (TERMINATE)   |
| 30 - 39    |    | [ ]-3 |               |
| 40 - 44    |    | [ ]-4 |               |
| 45 - 49    |    | [ ]-5 | (CHECK QUOTA) |
| 50 - 54    |    | [ ]-6 |               |
| 55 - 59    |    | [ ]-7 | (TERMINATE)   |
| 60 - 64    |    | [ ]-8 |               |
| 65 - 69    |    | [ ]-9 |               |
| 70 - 74    |    | [ ]-0 | (CHECK QUOTA) |
| 75 - 79    |    | [ ]-x |               |
| 80 OR OVER |    | [ ]-y | (TERMINATE)   |

Now I would like to ask you a different kind of question about age. It has to do with the way you feel about yourself, so please listen carefully to the question. (READ THE FOLLOWING QUESTION VERBATIM)

b. You mentioned that you are in your (DECADE MENTIONED). Research has shown that some people in their (DECADE MENTIONED) really think of themselves as being in their (DECADE MENTIONED), while other people in their (DECADE MENTIONED) really think of themselves as being in a different age group — either older or younger. Please tell me which of the following age groups you feel most similar to: the twenties, thirties, forties, fifties, sixties, seventies, or eighties.

- |      |    |       |  |
|------|----|-------|--|
| 20's | 13 | [ ]-1 | (TERMINATE)  |
| 30's |    | [ ]-2 |  |
| 40's |    | [ ]-3 |  |
| 50's |    | [ ]-4 | (CHECK QUOTA GROUPS BELOW. NOTE: IF 40-54 IN Q.a, AND 60's OR 70's IN Q.b, TERMINATE.) |
| 60's |    | [ ]-5 |  |
| 70's |    | [ ]-6 |  |
| 80's |    | [ ]-7 | (TERMINATE)  |

-----  
 RESPONDENT'S NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_ TELEPHONE NO. ( ) \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_  
 INTERVIEWED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 VALIDATED BY \_\_\_\_\_ DATE \_\_\_\_\_

THERE ARE THREE QUOTA GROUPS: (SUPERVISOR, PLEASE RECORD BELOW)

- (i) THOSE AGED 65-79 WHO THINK OF THEMSELVES AS IN THEIR 60's OR 70's 14 [ ]-1
- (ii) THOSE AGED 65-79 WHO THINK OF THEMSELVES AS IN THEIR 40's OR 50's [ ]-2
- (iii) THOSE AGED 40-54 WHO THINK OF THEMSELVES AS IN THEIR 40's OR 50's [ ]-3

(READ THE FOLLOWING TO ALL QUALIFIED RESPONDENTS)

A manufacturer of household products is thinking of introducing a mail order catalog and has asked us to find out what people think of the catalog. We would like to send you a sample of the catalog, which describes some new household products, and get your reactions to the products and to the catalog. We only want your opinions; you will not be asked to buy anything. We will send the catalog along with a questionnaire which will take about 20 minutes to fill out. In return for your participation, we will send you a free gift and enter your name in a lottery from which four people will win \$50.00 cash each. May we send you the catalog? We value your opinions.

ACCEPTED MAIL QUESTIONNAIRE 15 [ ]-1

REFUSED MAIL QUESTIONNAIRE [ ]-2

(INTERVIEWER: VERIFY NAME AND ADDRESS SO THAT MAIL QUESTIONNAIRE CAN BE SENT.)

16-18R

LETTERS TO RESPONDENTS:  
INITIAL AND FOLLOW-UP MAILINGS



OXTOBY-SMITH INC  
150 EAST 58th STREET  
NEW YORK, NY 10155  
TEL. 212-421-6100  
CABLE: OXTBYSMITH

---

CYNTHIA WEINMAN Vice President

February, 1986

Dear Friend:

Recently you were interviewed by telephone and, at that time, you kindly agreed to take part in a mail survey to give us your reactions to a new mail order catalog. As we mentioned when we spoke with you, we are offering two gifts in return for your completing the enclosed questionnaire:

- ...We will send you a free gift set of personal care products which we're sure you'll find useful; and
- ...We will enter your name in a lottery from which four people will win \$50.00 each.

The enclosed questionnaire is not a test. We are only interested in your frank, honest opinions as consumers. In filling out the questionnaire, we would appreciate your following these simple instructions:

- ...Please read the message from the maker of the catalog which you will find attached to the front of the questionnaire.
- ...Six different products from the new catalog are described in the questionnaire. For each product, please read the description and then answer the questions that immediately follow.
- ...Also, please answer the questions on the final pages of the questionnaire which ask for some more of your opinions about the new catalog, as well as some classification information.
- ...After you complete the entire questionnaire, please return it in the enclosed, postage-paid envelope on or before March 15, 1986.

Again, thank you so much for participating in our study. We really value your opinions.

Cordially,

*Cynthia Weinman*



OXTOBY-SMITH INC  
150 EAST 58th STREET  
NEW YORK, NY 10155  
TEL. 212-421-6100  
CABLE: OXTBYSMITH

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---

CYNTHIA WEINMAN Vice President

March, 1986

Dear Friend:

Recently you were interviewed by telephone and, at that time, you kindly agreed to take part in a mail survey to give us your reactions to a new mail order catalog. We sent you the mail questionnaire; however, as of yet, we have not received it from you. In case you have discarded or misplaced the questionnaire, we are sending you a second copy which we would appreciate your filling out promptly. As we mentioned, we are offering two gifts in return for your completing the enclosed questionnaire:

...We will send you a free gift set of personal care products which we're sure you'll find useful; and

...We will enter your name in a lottery from which four people will win \$50.00 each.

In order to benefit from these two gifts, you must return the completed questionnaire postmarked no later than April 4, 1986.

The enclosed questionnaire is not a test. We are only interested in your frank, honest opinions as consumers. In filling out the questionnaire, we would appreciate your following these simple instructions:

...Please read the message from the maker of the catalog which you will find attached to the front of the questionnaire.

...Six different products from the new catalog are described in the questionnaire. For each product, please read the description and then answer the questions that immediately follow.

...Also, please answer the questions on the final pages of the questionnaire which ask for some more of your opinions about the new catalog, as well as some classification information.

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...After you complete the entire questionnaire, please return it in the enclosed, postage-paid envelope on or before April 4, 1986.

Again, thank you so much for participating in our study.

Cordially,

*Cynthia Weinman*

**ENDORSERS**



Emily Horton

Maker of the Catalog

FROM ME TO YOU

Dear Customer,

I'm Emily Horton and I'd like to introduce my new mail-order catalog "From Me to You." In the pages that follow, you'll see some examples of the types of products I'll be offering.

As we get older, much of what we used to do without even thinking now seems a little harder and takes a little longer. I believe that it's time to take things a bit more slowly. The products I've selected for my catalog have made my life easier and more comfortable, and I would recommend them for anyone who welcomes convenient, easy to use items in their mature years. After all, why should we strain ourselves when things can be made more pleasant?

A unique feature of my catalog is that everything you see is priced at just \$4.95. My attitude is that things don't have to cost a lot to be of high quality.

I hope you enjoy the catalog. Please let me know what you think.

Sincerely,

*Emily Horton*



Emily Horton

Maker of the Catalog

FROM ME TO YOU

Dear Customer,

I'm Emily Horton and I'd like to introduce my new mail-order catalog "From Me to You." In the pages that follow, you'll see some examples of the types of products I'll be offering.

Just because we're getting older doesn't mean we should slow down. I believe that the best is yet to come. The products I've selected for my catalog have improved the quality of my life, and I would recommend them for anyone who is active and is interested in keeping young. After all, don't we deserve to make things more pleasant for ourselves?

A unique feature of my catalog is that everything you see is priced at just \$4.95. My attitude is that things don't have to cost a lot to be of high quality.

I hope you enjoy the catalog. Please let me know what you think.

Sincerely,

- 142 - *Emily Horton*

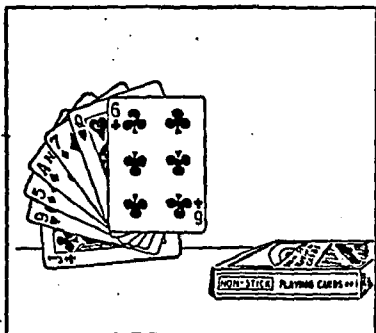
MAIL QUESTIONNAIRE

MAIN QUESTIONNAIRE

18-3

19-2

For Questions 1a through 6c, please read each product description carefully and answer the questions.



NON-STICK PLAYING CARDS

If you are tired of cards that stick together when you try to deal them, then these new cards are for you. These cards are made of specially coated plastic so that they slide off one another smoothly. The result is a deck of cards which is easy to deal and therefore more fun to play with.

ITEM #6343, SIX DECKS OF CARDS -- \$4.95

1a. How likely would you be to buy this product?

- I DEFINITELY WOULD BUY IT      50 [ ]-1
- I PROBABLY WOULD BUY IT        [ ]-2
- I MIGHT OR MIGHT NOT BUY IT    [ ]-3
- I PROBABLY WOULD NOT BUY IT    [ ]-4
- I DEFINITELY WOULD NOT BUY IT [ ]-5

1b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

1c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is, whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

THE ITEM DESCRIBES THE ABOVE PRODUCT:

	<u>EXTREMELY WELL</u>	<u>VERY WELL</u>	<u>SOMEWHAT</u>	<u>NOT VERY WELL</u>	<u>NOT AT ALL</u>
GOOD VALUE FOR THE MONEY	51 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	52 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	53 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	54 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	55 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 1 -- Q.1a-1c

CARD 1/50-55



NEW OVEN "GREASE BOMB" MAKES OVEN CLEANING EASIER

No more messy foam cleaners or scrubbing to clean your oven. To operate the oven grease bomb, you simply place the can inside the oven remove the cap, and close the oven door. In about 30 seconds, the can will release its contents into the oven. After 15 minutes, you can wipe the oven clean with a dry cloth. It's that easy.

ITEM #0224, PACKAGE OF THREE "GREASE BOMBS" -- \$4.95

2a. How likely would you be to buy this product?

- I DEFINITELY WOULD BUY IT      44 [ ]-1
- I PROBABLY WOULD BUY IT        [ ]-2
- I MIGHT OR MIGHT NOT BUY IT    [ ]-3
- I PROBABLY WOULD NOT BUY IT    [ ]-4
- I DEFINITELY WOULD NOT BUY IT   [ ]-5

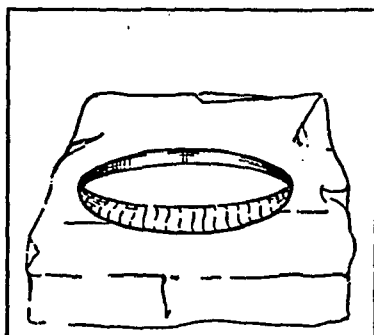
2b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

2c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is, whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE ABOVE PRODUCT:				
	EXTREMELY WELL	VERY WELL	SOMEWHAT	NOT VERY WELL	NOT AT ALL
GOOD VALUE FOR THE MONEY	45 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	46 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	47 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	48 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	49 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 2 -- Q.2a-2c

CARD 1/44-49



SIMULATED GOLD BRACELET

Now experience the elegance of 14K gold for a fraction of the cost. This lovely bracelet looks like real gold, but is actually made through a revolutionary new process that makes inexpensive metal look like the real thing. No one will know that you aren't wearing genuine gold.

ITEM #5819, ONE BRACELET -- \$4.95

3a. How likely would you be to buy this product?

- I DEFINITELY WOULD BUY IT            38 [ ]-1
- I PROBABLY WOULD BUY IT            [ ]-2
- I MIGHT OR MIGHT NOT BUY IT        [ ]-3
- I PROBABLY WOULD NOT BUY IT        [ ]-4
- I DEFINITELY WOULD NOT BUY IT      [ ]-5

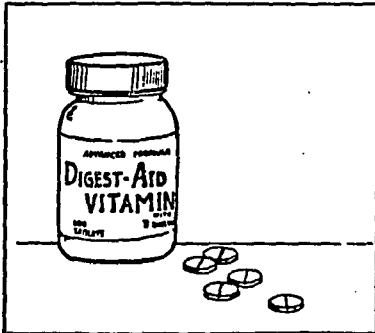
3b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

3c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is, whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE ABOVE PRODUCT:				
	EXTREMELY WELL	VERY WELL	SOMEWHAT	NOT VERY WELL	NOT AT ALL
GOOD VALUE FOR THE MONEY	39 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	40 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	41 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	42 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	43 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 3 -- Q.3a-3c

CARD 1/38-43



MIRACLE VITAMINS WHICH AID DIGESTION

For the first time, you can actually prevent indigestion or that "bloated" feeling before it happens with these special vitamin-based pills. We discovered that a combination of seven secret vitamin-based substances, when taken right before a meal, actually helps you digest your food more easily -- even if you overeat.

ITEM #1789, BOTTLE OF 100 TABLETS -- \$4.95

4a. How likely would you be to buy this product?

I DEFINITELY WOULD BUY IT      32 [ ]-1  
 I PROBABLY WOULD BUY IT      [ ]-2  
 I MIGHT OR MIGHT NOT BUY IT    [ ]-3  
 I PROBABLY WOULD NOT BUY IT    [ ]-4  
 I DEFINITELY WOULD NOT BUY IT [ ]-5

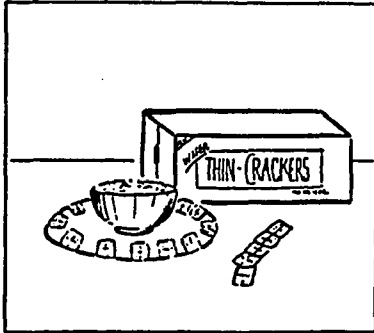
4b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

4c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is, whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE ABOVE PRODUCT:				
	EXTREMELY WELL	VERY WELL	SOMEWHAT	NOT VERY WELL	NOT AT ALL
GOOD VALUE FOR THE MONEY	33 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	34 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	35 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	36 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	37 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 4 -- Q.4a-4c

CARD 1/32-37



WAFER-THIN CRACKERS IDEAL FOR SNACKS

This new taste sensation is good enough to be eaten alone or ideal as an accompaniment. These crackers are unlike others you may have tasted. They are carefully baked thin enough so they won't fill you up, yet firm so they won't break when spread with cheese, jam, or other toppings.

ITEM #3863, THREE 12-OZ. BOXES OF CRACKERS -- \$4.95

5a. How likely would you be to buy this product?

- I DEFINITELY WOULD BUY IT            26 [ ]-1
- I PROBABLY WOULD BUY IT            [ ]-2
- I MIGHT OR MIGHT NOT BUY IT        [ ]-3
- I PROBABLY WOULD NOT BUY IT        [ ]-4
- I DEFINITELY WOULD NOT BUY IT      [ ]-5

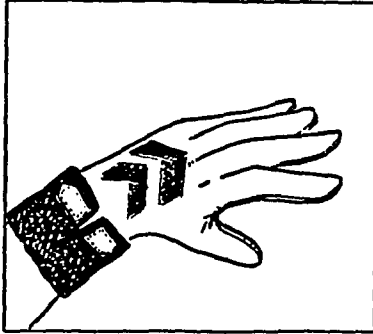
5b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

5c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE ABOVE PRODUCT:				
	<u>EXTREMELY WELL</u>	<u>VERY WELL</u>	<u>SOMEWHAT</u>	<u>NOT VERY WELL</u>	<u>NOT AT ALL</u>
GOOD VALUE FOR THE MONEY	27 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	28 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	29 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	30 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	31 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 5 -- Q.5a-5c

CARD 1/26-31



REVERSIBLE GLOVES

These fashionable gloves are really two pairs of gloves in one. Simply turn these pretty tan cotton gloves inside out and presto -- you're now wearing a pair of brown and tan two-tone gloves in crinkle cotton. People will ask you if the gloves you're wearing are famous designer gloves.

ITEM #2502, ONE PAIR OF GLOVES -- \$4.95

6a. How likely would you be to buy this product?

- I DEFINITELY WOULD BUY IT      20 [ ]-1
- I PROBABLY WOULD BUY IT        [ ]-2
- I MIGHT OR MIGHT NOT BUY IT    [ ]-3
- I PROBABLY WOULD NOT BUY IT    [ ]-4
- I DEFINITELY WOULD NOT BUY IT   [ ]-5

6b. Why do you say that? (ANY COMMENTS WILL BE VERY HELPFUL)

6c. For each of the following items, please indicate (with a check mark) how well that item describes the above product, that is, whether the item describes the above product EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE ABOVE PRODUCT:				
	EXTREMELY WELL	VERY WELL	SOMEWHAT	NOT VERY WELL	NOT AT ALL
GOOD VALUE FOR THE MONEY	21 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
DURABLE	22 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	23 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
EASY TO USE	24 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MODERN	25 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Page 6 -- Q.6a-6c

Card 1/20-25

Please answer questions 7a through 7d about each of the products you just saw. Circle the number which best represents your answer.

7a. What is the likelihood that there will be something wrong with that product or that it will not work properly?

	LOW					HIGH					
	LIKELIHOOD										
PLAYING CARDS	1	2	3	4	5	6	7	8	9	-56	
BRACELET	1	2	3	4	5	6	7	8	9	-57	
VITAMINS	1	2	3	4	5	6	7	8	9	-58	
GLOVES	1	2	3	4	5	6	7	8	9	-59	
CRACKERS	1	2	3	4	5	6	7	8	9	-60	
OVEN CLEANER	1	2	3	4	5	6	7	8	9	-61	

7b. What are the chances that the product may not be safe, i.e., may be (or become) harmful or injurious to your health?

	LOW					HIGH					
	LIKELIHOOD										
PLAYING CARDS	1	2	3	4	5	6	7	8	9	-62	
BRACELET	1	2	3	4	5	6	7	8	9	-63	
VITAMINS	1	2	3	4	5	6	7	8	9	-64	
GLOVES	1	2	3	4	5	6	7	8	9	-65	
CRACKERS	1	2	3	4	5	6	7	8	9	-66	
OVEN CLEANER	1	2	3	4	5	6	7	8	9	-67	

7c. What are the chances that the product will not fit in well with your self-image or self-concept (i.e., the way you think about yourself)?

	LOW					HIGH					
	LIKELIHOOD										
PLAYING CARDS	1	2	3	4	5	6	7	8	9	-68	
BRACELET	1	2	3	4	5	6	7	8	9	-69	
VITAMINS	1	2	3	4	5	6	7	8	9	-70	
GLOVES	1	2	3	4	5	6	7	8	9	-71	
CRACKERS	1	2	3	4	5	6	7	8	9	-72	
OVEN CLEANER	1	2	3	4	5	6	7	8	9	-73	

7d. What are the chances that the product will affect the way others think of you?

	LOW					HIGH					
	LIKELIHOOD										
PLAYING CARDS	1	2	3	4	5	6	7	8	9	-74	
BRACELET	1	2	3	4	5	6	7	8	9	-75	
VITAMINS	1	2	3	4	5	6	7	8	9	-76	
GLOVES	1	2	3	4	5	6	7	8	9	-77	
CRACKERS	1	2	3	4	5	6	7	8	9	-78	
OVEN CLEANER	1	2	3	4	5	6	7	8	9	-79	

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END CARD 1/56-79

We would like to get your reactions to the maker of this catalog.

8a. For each of the following items, please indicate (with a check mark) how well that item describes the maker of the catalog, that is, whether the item describes the maker of the catalog EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

	THE ITEM DESCRIBES THE MAKER OF THE CATALOG:				
	EXTREMELY WELL	VERY WELL	SOMEWHAT	NOT VERY WELL	NOT AT ALL
PERSUASIVE	13 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
BELIEVABLE	14 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
KNOWLEDGEABLE	15 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
TRUSTWORTHY	16 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
LIKABLE	17 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
SOMEONE JUST LIKE ME	18 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
COMPETENT	19 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
SINCERE	20 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

8b. What is your overall opinion of the maker of this catalog?

EXCELLENT	21 [ ]-1
VERY GOOD	[ ]-2
GOOD	[ ]-3
FAIR	[ ]-4
POOR	[ ]-5

22-23R

Page 8 -- Q.8a-8b

CARD 2/13-23

9. We would like to get your opinion regarding what type of woman would be most interested in this catalog. For each of the following adjectives, please indicate (with a check mark) how well that adjective describes the type of woman who would be most interested in this catalog, that is, whether the adjective describes that type of woman EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, or NOT AT ALL.

THE ADJECTIVE DESCRIBES THE TYPE OF WOMAN  
WHO WOULD BE MOST INTERESTED IN THIS CATALOG:

	<u>EXTREMELY</u> <u>WELL</u>	<u>VERY</u> <u>WELL</u>	<u>SOMEWHAT</u>	<u>NOT VERY</u> <u>WELL</u>	<u>NOT AT</u> <u>ALL</u>
INTELLIGENT	24 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
FASHIONABLE	25 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
CONTEMPORARY	26 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
HEALTHY	27 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
CONFIDENT	28 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
ATTRACTIVE	29 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
LIVELY	30 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
OLD-FASHIONED	31 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

Now, we would like to get your impressions of mail order catalogs, in general.

10. Within the past year, have you made a purchase from a mail order or department store catalog?

YES 32 [ ]-1

NO [ ]-2

11. For each of the following items, please indicate (with a check mark) how well that item describes mail order catalogs in general, that is, whether the item describes mail order catalogs EXTREMELY WELL, VERY WELL, SOMEWHAT, NOT VERY WELL, OR NOT AT ALL.

THE ITEMS DESCRIBES MAIL ORDER CATALOGS, IN GENERAL:

	<u>EXTREMELY</u> <u>WELL</u>	<u>VERY WELL</u>	<u>SOMEWHAT</u>	<u>NOT VERY</u> <u>WELL</u>	<u>NOT AT</u> <u>ALL</u>
USUALLY OFFERS BETTER VALUE FOR THE MONEY THAN A STORE	33 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
MAKES SHOPPING ENJOYABLE	34 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
IS A CONVENIENT WAY TO SHOP	35 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5
OFFERS UNUSUAL PRODUCTS	36 [ ]-1	[ ]-2	[ ]-3	[ ]-4	[ ]-5

12a. What if anything, do you particularly like about mail order catalogs? (PLEASE ANSWER IN AS MUCH DETAIL AS YOU CAN).

12b. What, if anything, do you particularly dislike about mail order catalogs? (PLEASE ANSWER IN AS MUCH DETAIL AS YOU CAN).

The following questions are for classification purposes only.

13. Generally speaking, how would you describe your health on an overall basis? Would you say your health is ...

EXCELLENT 37 [ ]-1  
VERY GOOD [ ]-2  
GOOD [ ]-3  
FAIR [ ]-4  
POOR [ ]-5

14. Please indicate your marital status.

SINGLE (NEVER MARRIED) 38 [ ]-1  
MARRIED [ ]-2  
DIVORCED OR SEPARATED [ ]-3  
WIDOWED [ ]-4

15. Including yourself, how many people live in your household?

-39

(WRITE IN NUMBER OF PEOPLE)

16. Which of the following magazines, if any, do you read on a regular basis?

TIME 40 [ ]-1  
CONSUMER REPORTS [ ]-2  
NEWSWEEK [ ]-3  
MODERN MATURITY [ ]-4  
PRIME TIME [ ]-5  
PEOPLE [ ]-6  
50 PLUS [ ]-7  
OTHER (PLEASE SPECIFY:) [ ]-8

17. Do you belong to any consumer organizations?

YES 41 [ ]-1 → If so, which? (PLEASE WRITE IN NAMES OF ORGANIZATIONS)  
NO [ ]-2

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42R

Page 11 -- Q.13-17

CARD 2/37-42

18a. Are you employed outside the home, either paid or volunteer work?

YES, FULL TIME 43 [ ]-1  
YES, PART TIME [ ]-2  
NO [ ]-3 → (PLEASE SKIP TO QUESTION 19)

18b. Which of the following best describes your occupation?

PROFESSIONAL (Lawyer, M.D., professor,  
C.P.A., architect, etc.) 44 [ ]-1  
MANAGER/EXECUTIVE/SELF EMPLOYED MANUFACTURER [ ]-2  
TECHNICAL/ENGINEER/ARTISAN (Research assistant,  
teacher, librarian, computer programmer, etc.) [ ]-3  
SALES/CLERICAL/OWNER OF SMALL RETAIL STORE  
(white collar worker) [ ]-4  
CRAFTSMAN/SERVICE WORKER/FARMER/LABORER  
(blue collar worker) [ ]-5  
VOLUNTEER [ ]-6

19. Which of the following categories best describes your educational background?

DID NOT ENTER OR FINISH HIGH SCHOOL 45 [ ]-1  
HIGH SCHOOL GRADUATE [ ]-2  
SOME COLLEGE [ ]-3  
COLLEGE GRADUATE [ ]-4  
SOME GRADUATE SCHOOL [ ]-5  
OTHER (SPECIFY:) \_\_\_\_\_ [ ]-6

20. Which of the following categories best describes your total family income after taxes?

UNDER \$15,000 46 [ ]-1  
\$15,000 - \$19,999 [ ]-2  
\$20,000 - \$24,999 [ ]-3  
\$25,000 - \$29,999 [ ]-4  
\$30,000 OR OVER [ ]-5

Thank you very much for participating in this research. Please return the questionnaire to us in the enclosed envelope. We'll send out your free gift and notify you in a few weeks if you have won \$50.00 in the lottery.

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END CARD 2/43-46

**CALLBACK QUESTIONNAIRE**

\_\_\_\_\_ (INT. #)

CALLBACK INTERVIEW

F. O. U. O

Hello, I'm \_\_\_\_\_ from Oxtoby-Smith. I want to thank you for participating in our study about some new household products. I just have one more question to ask you.

Those products that you saw in the catalog we sent you are not yet on the market. However, the manufacturer of the catalog is considering introducing these products. If they become available you can purchase them, if you wish, for \$4.95 each. We can take your order now, and contact you if the products become available.

Would you like to order the ... (READ LIST)

	<u>YES</u>	<u>NO</u>
NON-STICK PLAYING CARDS	70 [ ]-1	71 [ ]-1
SIMULATED GOLD BRACELET	[ ]-2	[ ]-2
VITAMINS WHICH AID DIGESTION	[ ]-3	[ ]-3
REVERSIBLE GLOVES	[ ]-4	[ ]-4
WAFER-THIN CRACKERS	[ ]-5	[ ]-5
"GREASE BOMB" OVEN CLEANER	[ ]-6	[ ]-6

Again, we are not sure if these products will become available. In no case should you send us any money or checks until we recontact you. If you haven't heard from us in thirty days, you can assume that the manufacturer has decided not to sell the products at this time.

We have sent out your free gift and you will receive it shortly.

Thank you again so much for your help.

NAME: \_\_\_\_\_

PHONE: ( ) \_\_\_\_\_

END CARD 3/70-71

**BIBLIOGRAPHY**

- Ad Forum. A new look at over-40 consumers. August, 1981.
- Advertising Age. "Golden years" tag shunned by advertisers. January, 1987.
- Aisenberg, R. What happens to old psychologists: A preliminary report. In R. Kastenbaum (Ed.) New Thoughts On Old Age. NY: Springer, 1964.
- American Demographics. Demographic forecasts: The elderly. May, 1982.
- Arnold, H.J. Moderator variables: A clarification of conceptual, analytic, and psychometric issues. Organizational Behavior And Human Performance, 1982. 29: 143-174.
- Aronson, E., Turner, J. and Carlsmith, J.M. Communicator credibility and communication discrepancy. Journal Of Abnormal And Social Psychology, 1963. 67: 31-36.
- Atkin, C.K. Mass media and the aging. In H.J. Oyer and E.J. Oyer (Eds.) Aging And Communication. Baltimore, MD: University Park Press, 1976.
- Barak, B. and Schiffman, L.G. Cognitive age: A nonchronological age variable. In K.B. Monroe (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1981. Vol. VIII: 602-606.
- Bartos, R. Beyond the rocking chair. Presentation to Second A.M.A./E.S.O.M.A.R. Conference "From Advertising To Communication Research." Paris, France: American Marketing Association, 1981.
- Bartos, R. Over 49: The invisible consumer market. Harvard Business Review, 1980. 58(1): 140-148.
- Bartos, R. Exploring mysterious markets. American Demographics, 1979. Pp. 9-17.
- Bauer, R.A. Consumer behavior as risk taking. In R.S. Hancock (Ed.) Dynamic Marketing For A Changing World. Chicago: American Marketing Association, 1960. Pp. 389-398.
- Baum, S.K. Age identification in the elderly: Some theoretical considerations. International Journal Of Aging And Human Development, 1984. 18(1): 25-30.
- Bengston, V.L., Kasschau, P.L., and Ragan, P.K. The impact of social structure on aging individuals. In J.E. Birren and K.W. Schaie (Eds.) Handbook of The Psychology Of Aging. NY: Van Nostrand Reinhold, 1977.

- Bikson, T.K. and Goodchilds, J.D. Old people and new ideas: Receptivity and rigidity. Rand Corporation Paper Series, 1979.
- Birren, J.E., Kinney, D.K., Schaie, K.W., and Woodruff, D.S. Developmental Psychology: A Lifespan Approach. Boston: Houghton Mifflin Company, 1981.
- Blau, Z.S. Changes in status and age identification. American Sociological Review, 1956. 20: 198-202.
- Bonfield, E.H. Perception of marital roles in decision processes: Replication and extension. In H.K. Hunt (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1978. Vol. V: 300-307.
- Botwinick, J. Aging And Behavior. (Second Edition). NY: Springer, 1978.
- Botwinick, J. Cautiousness in advanced age. Journal Of Gerontology, 1966. 21: 347-353.
- Brooker, G. An assessment of an expanded measure of perceived risk. In T.C. Kinnear (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1984. Vol. XI: 439-441.
- Brotman, H.B. Who are the aged? In F.E. Waddell (Ed.) The Elderly Consumer. Columbia, Maryland: The Human Ecology Center, Antioch College, 1976.
- Buhler, C. and Massarik, F. (Eds.) The Course Of Human Life. NY: Springer, 1968.
- Bultena, G.L. and Powers, E.A. Denial of aging: Age identification and reference group orientations. Journal Of Gerontology, 1978. 33(5): 748-754.
- Business Week. The power of aging in the marketplace. November 20, 1971, Pp. 52-58.
- Calhoun, R.E. and Hutchison, S.L., Jr. Decision-making in old age: Cautiousness and rigidity. International Journal Of Aging and Human Development, 1981. 13(2): 89-98.
- Chilton Research Services. Purchase Influence, 1985.

- Chown, S.M. Morale, careers, and personal potentials. In J.E. Birren and K.W. Schaie (Eds.) Handbook Of The Psychology Of Aging. NY: Van Nostrand Reinhold, 1977. Pp. 672-691.
- Chown, S.M. Personality and aging. In K.W. Schaie (Ed.) Theory And Method Of Research On Aging. Morgantown: West Virginia University Press, 1968.
- Conference Board. Midlife And Beyond: The \$800 Billion Over-Fifty Market. Consumer Research Center, 1985.
- Conlin, K. Wooing older consumers. New York Times, November 27, 1986.
- Cox, D.F. (Ed.) Risk Taking And Information Handling In Consumer Behavior. Boston: Graduate School of Business Administration, Harvard University, 1967.
- Cumming, E. and Henry W. Growing Old: The Process Of Disengagement. NY: Basic Books, 1961.
- Cunningham, I.C.M. and Green, R.T. Purchasing roles in U.S. family, 1955 and 1973. Journal Of Marketing, 1974. 30: 61-64.
- Cutler, N.E. Age and political behavior. In D.S. Woodruff and J.E. Birren (Eds.) Aging: Scientific Perspectives And Social Issues. (Second Edition) CA: Brooks/Cole, 1983. Pp. 409-442.
- Drevenstedt, J. Perceptions of onsets of young adulthood, middle age, and old age. Journal of Gerontology, 1976. 31(1): 53-57.
- Dudek, V. Catalogs: Solution to market segmentation. Marketing Communications, July 1984. Pp. 16-19.
- Elder, J. Portrait of elderly: Still independent despite limitations. New York Times, January 15, 1987.
- Elias, M.F. and Elias, P.K. Motivation and activity. In J.E. Birren and K.W. Schaie (Eds.) Handbook Of The Psychology Of Aging. NY: Van Nostrand Reinhold, 1977. Pp. 357-383.
- Erikson, E.H. Childhood And Society. Second Edition. NY: W.H. Norton, 1963.
- Exter, T.G. How to think about age. American Demographics, September, 1986.

- Freedman, J.L., Carlsmith, J.M. and Sears, D.O. Social Psychology. NJ: Prentice-Hall, 1974.
- French, W.A. and Fox, R. Segmenting the senior citizen market. Journal Of Consumer Marketing, 1985. 2(1): 61-72.
- Friedman, H.H. and Friedman, L. Endorser effectiveness by product type. Journal Of Advertising Research, 1979. 19(5): 63-71.
- Gage, T.J. Ads targeted at mature in need of creative hoist. Advertising Age, August 25, 1980. Section 2.
- Garfield, R. The invisible consumer. Madison Avenue, October, 1984. Pp. 86-93.
- Gergen, K.J. and Back, K.W. Communication in the interview and the disengaged respondent. Public Opinion Quarterly, 1969. 33: 17-33.
- Greco, A.J. Overlooked senior citizen market lends itself well to a segmentation approach. Marketing News, April 27, 1984, P. 7.
- Grey Advertising Marketing and Research Department. Observations on the "oldsters" market. Unpublished, February, 1981.
- Gross, S.J. and Niman, C.M. Attitude-behavior consistency: A review. Public Opinion Quarterly, 1975. 39(3): 358-368.
- Hall, C.S. and Lindzey, G. Theories Of Personality. (Third Edition) NY: Wiley, 1978.
- Harmon, R.R. and Coney, K.A. The persuasive effects of source credibility in buy and lease situations. Journal Of Marketing Research, 1982. Pp. 255-260.
- Hess, B. Stereotypes of the aged. Journal Of Communication, 1974. 24: 76-85.
- Horton, R.L. Some relationships between personality and consumer decision making. Journal of Marketing Research, 1979. Pp. 233-246.
- Hovland, C.J. and Weiss, W. The influence of source credibility on communication and effectiveness. Public Opinion Quarterly, Winter, 1951-1952. 15: 635-650.

- Jacoby, J. and Kaplan, L.B. The components of perceived risk. In M. Venkatesan (Ed.) Proceedings Of The Third Annual Convention Of The Association For Consumer Research. Chicago: University of Chicago Press, 1972. Pp. 382-393.
- Jarvik, L.F. and Cohen, D. A behavioral approach to intellectual change with aging. In C. Eisdorfer and M.P. Lawton (Eds.) The Psychology Of Adult Development And Aging. Washington, DC: APA, 1973.
- Kastenbaum, R. Memories of tomorrow: On the interpretation of time in later life. In B.S. Gorman and A.E. Wessman (Eds.) The Personal Experience Of Time. NY: Plenum Press, 1977. Pp. 193-214.
- Kastenbaum, R., Derbin, V., Sabatini, P. and Artt, S. "The ages of me": Toward personal and interpersonal definitions of functional aging. Aging And Human Development, 1972. 3: 197-211.
- Kastenbaum, R. and Durkee, N. Elderly people view old age. In R. Kastenbaum (Ed.) New Thoughts On Old Age: NY: Springer, 1964.
- Kimmel, D.C. Adulthood And Aging: An Interdisciplinary, Developmental View (Second Edition). NY: Wiley, 1980.
- Kirkeby, M. The maturity market is coming of age. Advertising Age, August 25, 1980. Section 2.
- Korzenny, F. and Neuendorf, K. Television viewing and self concept of the elderly. Journal Of Communication, Winter 1980. 30: 71-80.
- Kotler, P. Marketing Management: Analysis, Planning And Control. (Third Edition) NJ: Prentice-Hall, 1976. Pp. 145-147.
- Langer, E.J. and Rodin, J. The effects of choice and enhanced personal responsibility for the aged. A field experiment in an institutional setting. Journal Of Personality And Social Psychology, 1976. 34: 191-198.
- Langer, E.J., Rodin, J., Beck, P., Weinman, C. and Spitzer, L. Environmental determinants of memory improvement in late adulthood. Journal Of Personality And Social Psychology, 1979. 37(11): 2003-2013.

- Langer, J. Changing demographics: Stimulus for new product ideas. Journal Of Consumer Marketing, 1983. 1(2): 35-43.
- LaPiere, R.T. Attitudes versus action. Social Forces, 1934. 13: 230-237.
- Lazer, W. Dimensions of the mature market. Journal Of Consumer Marketing, 1986. 3(3): 23-34.
- Lepisto, L.R. A life-span perspective of consumer behavior. In E.C. Hirschman and M.B. Holbrook (Eds.) Advances In Consumer Research, Vol. XII. Provo, VT: Association For Consumer Research, 1985. Pp. 47-52.
- Linn, M.W. and Hunter, K. Perception of age in the elderly. Journal Of Gerontology, 1979. 34(1): 46-52.
- Louis Harris and Associates. The Myth And Reality Of Aging In America. Washington, DC: National Council On the Aging, 1976.
- Markides, K.S. and Boldt, J.S. Change in subjective age among the elderly: A longitudinal analysis. Gerontologist, 1983. Pp. 422-427.
- Markin, R.J., Jr. Consumer Behavior: A Cognitive Orientation. NY: MacMillan, 1974.
- McNemar, Q. Psychological Statistics (Fourth Edition). NY: Wiley, 1969.
- Meadow, H.L., Cosmas, S.C., and Plotkin, A. The elderly consumer: Past, present and future. In K.B. Monroe (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1981. Vol. VIII: 742-747.
- Mediamark Research, Inc., Spring 1984 and Spring 1983.
- Mertz, B. and Stephens, N. Marketing to older American consumers. International Journal Of Aging And Human Development, 1986. 23(1): 47-58.
- Nardi, A.N. Person-perception research and the perception of life-span development. In P.B. Baltes and K. Warner Schaie (Eds.) Life Span Developmental Psychology. NY: Academic Press, 1973. Pp. 285-301.

National Council On The Aging, Fact Book On Aging: A Profile Of America's Older Population. Washington, DC: The National Council On The Aging Research and Evaluation Department, February, 1978.

Neugarten, B.L. Personality and aging. In J.E. Birren and K.W. Schaie (Eds.) Handbook Of The Psychology Of Aging; NY: Van Nostrand Reinhold, 1977. Pp. 626-649.

Neugarten, B.L. Adult personality: Toward a psychology of the life cycle. In B.L. Neugarten (Ed.) Middle Age And Aging. Chicago: University Of Chicago Press, 1968. Pp. 137-147.

Neugarten, B.L. and Associates. Personality In Middle And Late Life. NY: Atherton Press, 1964.

Newcomb, T.M. Personality And Social Change. NY: Holt Rinehart & Winston, 1943.

Norusis, M.J. SPSS-X Advanced Statistics Guide. SPSS, Inc., 1985.

Nunnally, J.C. Psychometric Theory. NY: McGraw Hill, 1978.

Ogilvy and Mather Advertising. Age 65+: A major marketing opportunity. Unpublished, November, 1977.

Oyer, H.J. and Oyer, E.J. Aging And Communication. Baltimore: University Park Press, 1976.

Peck, R.C. Psychological developments in the second half of life. In B.L. Neugarten (Ed.) Middle Age And Aging. Chicago: University of Chicago Press, 1968. Pp. 88-92.

Peters, G.R. Self-conceptions of the aged, age identification, and aging. Gerontologist, 1971. 11: 69-73.

Petre, P. Marketers mine for gold in the old. Fortune, March 31, 1986. Pp. 70-78.

Phillips, L.W. and Sternthal, B. Age differences in information processing: A perspective on the aged consumer. Journal Of Marketing Research, 1977. Pp. 444-457.

Popielarz, D.T. An exploration of perceived risk and willingness to try new products. Journal Of Marketing Research, 1967. Pp. 368-372.

Product Marketing. Rubenstein aims at upper end. November, 1977.

Public Opinion. You make me feel so young. August/September, 1984. P. 22.

Rapoport, R.B. Sex differences in attitude expression: A generational explanation. Public Opinion Quarterly, 1982. 46(1): 86-96.

Reedy, M.N. Personality and aging. In D.S. Woodruff and J.E. Birren (Eds.) Aging: Scientific Perspectives And Social Issues. (Second Edition). CA: Brooks/Cole, 1983. Pp. 112-136.

Reichard, S., Livson, F., and Peterson, P.G. Aging And Personality. NY: Wiley, 1962.

Riley, M.W., Foner, A. and Associates. Aging And Society. Volume 1. An Inventory Of Research Findings. NY: Russell Sage Foundation, 1968.

Robertson, T. Innovative Behavior And Communication. NY: Rinehart and Wilson, 1971.

Rosow, I. Social Integration Of The Aged. NY: Free Press, 1967.

Saunders, D.R. Moderator variables in prediction. Educational And Psychological Measurement, 1956. Pp. 209-222.

Schaie, K.W. and Parham, I.A. Stability of adult personality: Fact or fable. Journal Of Personality And Social Psychology, 1976. 36: 146-158.

Schewe, C.D. In: Research dispels myths about elderly; suggests marketing opportunities. Marketing News, May 25, 1984. Section 1: 12.

Schick, F.L. (Ed.) Statistical Handbook On Aging Americans. Phoenix, AZ: Oryx Press, 1986.

Schiffman, L.G. Perceived risk in new product trial by elderly consumers. In F.E. Waddell (Ed.) The Elderly Consumer. Columbia, MD: Human Ecology Center of Antioch College, 1976. Pp. 431-436.

Schiffman, L.G. and Kanuk, L.L. Consumer Behavior (Second Edition). Englewood Cliffs, NJ: Prentice Hall, 1983.

- Seligman, M.E.P. Helplessness: On Depression, Development, and Death. San Francisco, CA: W.H. Freeman, 1975.
- Shanus, E. What's new in old age? American Behavioral Scientist, 1970. Vol. 14, P. 5.
- Sharma, S., Durand, R.M., and Gur-Arie, O. Identification and analysis of moderator variables. Journal Of Marketing Research, 1981. Pp. 291-300.
- Sherman, E. and Schiffman, L.G. Applying age-gender theory from social gerontology to understand the consumer well-being of the elderly. In T.C. Kinnear (Ed.) Advances In Consumer Research. Ann Arbor, MI: Association For Consumer Research, 1984. Vol. XI: 569-573.
- Sherman, G. The silver pages guide to the older market. National Association Of Area Agencies On Aging, 1986.
- Simmons Market Research Bureau, Inc., 1984.
- Smith, R.B. and Moschis, G.P. Consumer socialization of the elderly: An exploratory study. In T.C. Kinnear (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1984. Vol. XI: 548-552.
- Spalding, L.A. Strategies for selling by mail. Stores, September, 1982. Pp. 23-31.
- SPSS-X User's Guide (Second Edition). SPSS, Inc., 1986.
- Sugarman, L. Breaking the 'old age' barrier. Advertising Age, December 16, 1985. P. 18.
- Sutherland, A.T., Jr. Take a bite of the golden apple. Marketing Review, 1984. 39(10): 17-21.
- Tamir, L.M. Communication And The Aging Process. NY: Pergammon Press, 1979.
- Thomae, H. The concept of development and life-span developmental psychology. In P.B. Baltes and O.G. Brim, Jr. (Eds.) Life-Span Development And Behavior. Volume 2. NY: Academic Press, 1979.
- Thomae, H. Theory of aging and cognitive theory of personality. Human Development, 1970. 13: 1-16.
- Thorndike, E.L., Bregman, E.O., Tilton, J.W., and Woodyard,

- Towle, J.G. and Martin, C.R., Jr. The elderly consumer: One segment or many. In B.B. Anderson (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1976. Vol. III: 463-468.
- Tuckman, J. and Lorge, J. When does old age begin and a worker become old? Journal Of Gerontology, 1953. 8: 483-488.
- Underhill, L. and Cadwell, F. "What age do you feel": Age perception study. Journal Of Consumer Marketing, 1983 1(1): 18-27.
- U.S. Bureau Of The Census. America in transition: An aging society. Current Population Reports, Series P. 23, No. 128. Washington, DC: U.S. Government Printing Office, 1983.
- Vincent, M. and Zikmund, W.G. An experimental investigation of situational effects on risk perception. In B.B. Anderson (Ed.) Advances In Consumer Research. Ann Arbor, Michigan: Association For Consumer Research, 1976. Vol. III: 125-129.
- Visvabharathy, G. and Rink, D.R. The elderly: Neglected business opportunities. Journal Of Consumer Marketing, 1986.
- Ward, R.A. The Aging Experience: An Introduction To Social Gerontology. NY: J.B. Lippincott, 1979.
- Ward, R.A. The impact of subjective age and stigma on older persons. Journal Of Gerontology, 1977. 32(2): 227-232.
- Weiss, D.J. Multivariate procedures. In M.D. Dunnette (Ed.) Handbook Of Industrial And Organizational Psychology. NY: Wiley, 1983.
- Wicker, A.W. Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objectives. Journal Of Social Issues, 1969. 25(4): 41-78.
- Woodruff, D.S. and Birren, J.E. Age changes and cohort differences in personality. Developmental Psychology, 1972. 6: 252-259.
- Wrightsman, L.S. Social Psychology In The Seventies: Brief Edition. CA: Wadsworth, 1973.

Zaltman, G. and Wallendorf, M. Consumer Behavior: Basic Findings And Management Implications. NY: John Wiley, 1979.

Zikmund, W.G. and Scott, J.E. An investigation of the role of product characteristics in risk perception. Review Of Business And Economic Research, 1977. 13: 19-34.

Zola, J.K. Findings about age among old people. Journal Of Gerontology, 1962. 17: 65-68.