

The Impact of Aging on Consumer Responses: *What Do We Know?*

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ABSTRACT

The purpose of this paper is to critically review what is known about the influence of age on consumer responses, and to point out the major contributions and gaps. In order to organize the literature, we propose a framework with two components: age-related changes (e.g., psychological, social and biological changes) and consumer responses (e.g., cognition, affect and behavior). Finally, a new research focus is offered to help overcome some of the challenges that exist in the literature. This research focus is characterized by the development of integrative theories that take into account several age-related changes.

Americans are older today than ever before, and the average age is increasing. According to the U.S. Census Bureau, the proportion of people aged 65 years and over should increase from 13% in 2000 to 15% in 2015, up to 21% in 2050. Given the important consequences that this phenomenon is having and will continue to have on society, researchers from different fields have been paying an increasing amount of attention to the effects of aging on almost all the components of life, such as health, cognitive skills, physiological capabilities, social activities and interactions, emotions, personality, housing, and nutrition. Marketers are also very interested in this phenomenon. They would like to know how aging affects consumer behavior of the elderly, and in turn how these behavioral changes will influence ways of doing business. One of the most critical questions is to determine whether or not specific strategies need to be developed for aging people.

Basically, there are two major empirical streams of research that have looked at aging and consumer behavior: information-processing changes, and consumer behavior changes (related to cognition, affect and behavior). The first stream is concerned with the identification of differences between the elderly and younger people in marketing information processing (e.g., Law, Hawkins and Craik 1998; Yoon 1997; Cole and Balasubramian 1993; and Cole and Geath 1990). Researchers of this stream test theories related to learning and problem solving in marketing contexts.

In the second and more researched stream, researchers compare the responses of different groups for specific aspects of consumer behavior, such as the sources of information used by different groups (e.g. Davis and French 1989; and Stephens 1981) store selection (e.g. Lumpkin, Greenberg and Goldstucker 1985; and Lumpkin and Greenberg 1982), attitudes towards advertising (Davis and French 1989), attitudes towards new technologies (Zeithaml and Gilly 1987), products and services purchase (Uncles and Ehrenberg 1990), and customer dissatisfaction (Bernhardt 1981; and Bearden and Mason 1979). In most cases, researchers compare two or more groups of different chronological ages: usually a group of older people with one or more groups of younger people. In a few cases, researchers compare the responses of different segments of older people (Moschis 1993; French and Bryan 1989; and Tantiwong and Wilton 1985). Also, some researchers use cognitive age as a substitute for or complement to chronological age (Johnson 1993; Wilkes 1992; and Barak and Stern 1985).

Despite growing knowledge on aging and consumer behavior, many questions still remain unanswered. Although the first stream of research offers meaningful insights on how people process marketing information, researchers of this stream do not explain how the cognitive deficiencies of the elderly influence their

searching process in a "real" environment (Moschis 1994), or how they impact other consumer responses, especially those associated with affect and behavior. Moreover, even if the second stream effectively describes some observable behaviors of the elderly, findings regularly conflict from one study to another. This situation can be explained by two reasons. First, researchers of this stream widely continue to use chronological age as their segmentation basis, even though other independent variables, particularly cognitive age, have been strongly recommended. Second, little effort has been devoted in this stream in theory building (Yoon 1997).

The motivation for this paper comes from the fact that much still to be learned regarding how aging impacts consumer responses, and that the existing streams of research use theoretical focus which limit our ability to learn more. Here, we argue that any stream of research clearly addresses the question: why there are differences, if any, between the responses of aging people and those of younger individuals? Thus, the purpose of this paper is threefold. First, we aim to synthesize and integrate what is known about the influence of age on consumer behavior. For doing so, a conceptual framework is developed. Second, we intend to point out the major contributions and gaps in that field. Finally, a new research focus is presented in order to overcome challenges with existing approaches. This new research focus is characterized by the development of integrative theories that takes into account several age-related changes.

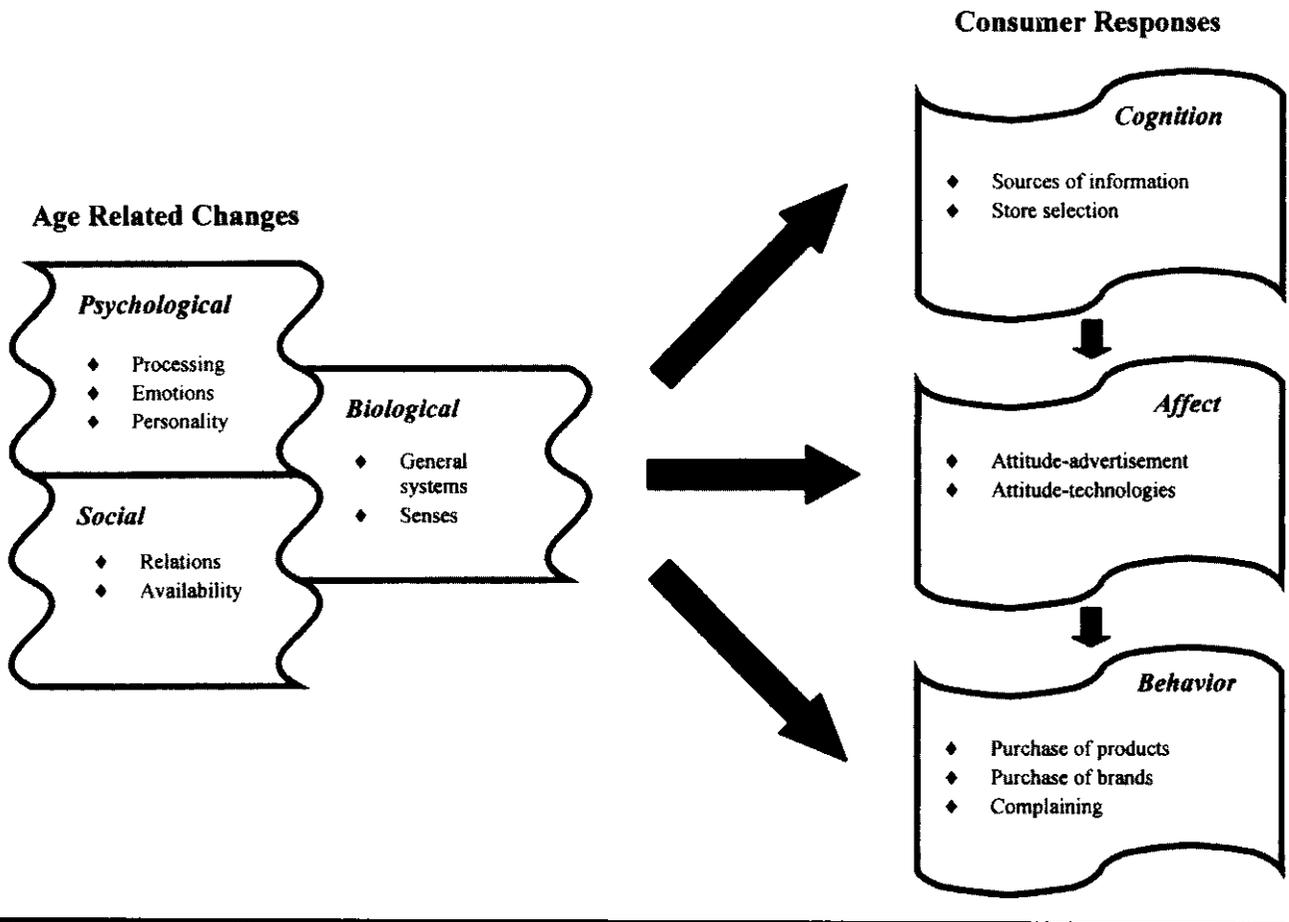
The rest of this review will proceed as follows. First, the conceptual framework is presented. Second, we synthesize the literature concerning age-related changes which are reputed to have an impact on consumer responses (the first dimension of the framework). Third, we synthesize the information concerning the differences between the consumer behavior of the elderly and that of younger people (the second dimension of the framework). Finally, in an attempt to reconcile the two previous parts, a critique of the literature is offered and a new research focus is put forward.

CONCEPTUAL FRAMEWORK

The conceptual framework presented here possesses two principal components: age-related changes and consumer responses (see figure 1). The concept of consumer responses can be examined by focussing on three components: cognition, affect and behavior. Although simple, the C-A-B framework played an important role in the earliest attempts to build models of consumer behavior (Engel, Kollat and Blackwell 1968). Moreover, as summarized by Holbrook and Batra (1987), a wide variety of consumer behavior patterns can be described and explained by slightly modifying the C-A-B framework.

The cognitive component includes all the stages whereby an individual become conscious of a problem, collects information to resolve, and analyzes the information before buying or consuming a service or a product. The affective component encompasses all the range of emotions (liking, disliking, love, hate, fear, anger, joy, sadness, and so on) that a consumer could experience in a decision process related to consuming. The behavioral component contains the physical actions of buying and consuming a product or a service. Specifically, we focus on two cognitive responses (sources of information and store selection), two affective responses (attitude towards advertising and attitude towards new technologies), and three behavioral responses (purchase of products, purchase of brands and complaining). These specific responses are those that

FIGURE 1
The Conceptual Model



have received most attention from researchers interested by aging and consumer behavior.

Age-related changes are usually grouped into three broad categories: biological (or physiological), psychological and sociological changes. An excellent overview of these three categories of changes is offered in the series of *Handbooks of Aging* (Birren, Schaie, Abeles, Gatz and Salthouse 1996; Binstock, George, Marshall, Myers and Schulz 1996; Schneider, Rowe, Johnson and Holbrook 1996). Although these changes will be discussed separately, a strong interdependency between them is assumed. To illustrate this interdependence, the different age-related changes overlap on each other in figure 1. In the present article, we pay attention to two biological changes (overall physiological systems and senses), three psychological changes (information-processing, emotions and personality) and two social changes (relationships and availability). As we explain in the following section, these changes are the most susceptible to have a significant impact on consumer behavior.

The framework suggests that several age-related changes of any type can influence a given consumer response. To explain older people's consumer behavior, we have to identify and understand the complex set of biological, psychological and social changes which affect a specific aspect of consumer behavior. For a better understanding, we also have to understand how these different changes interact together.

AGE-RELATED CHANGES

Biological Changes

According to Moschis (1994), biological changes refer to "the changes in human functional capacity resulting from changes in cells and tissues that in turn cause deterioration of the biological system and its subsystems." Few authors appear to have studied the impact of biological changes in marketing and consumer behavior contexts (Moschis 1994; Scheme 1988). In this sub-section, we first examine the impact of overall physiological aging on consumer behavior, and second, the consequences of sensory aging on the capability to perceive communication.

Overall Physiological Changes. Biological changes are likely to alter almost all aspects of consumer responses. The following represent four examples of the way biological changes might influence consumer behavior. First, they surely alter needs in terms of consumed products and services (Moschis 1994; Lumpkin and Hunt 1989; and Schewe 1988). Second, in influencing the sensory and information processing abilities of older people, these changes influence their capacity to perceive, understand and process communication (see next sub-section). Third, biological changes, associated with a loss of functionality or serious pain, influence negatively the emotional state of older people (Maigai and McFadden 1996) which in turn determines how they feel towards life in general, and marketing stimuli and offers in particular. Fourth, the

shopping patterns of older people could be influenced by a possible loss of mobility (LaForges 1989; and Lumpkin and Hunt 1989). On this subject, even if the problem of mobility does not appear to have a significant influence on the type of retail store frequented, this deficiency may affect switching patronage between stores (Lumpkin and Hunt 1989).

Sensoring Changes. Given that communication is usually presented visually, orally or by both means, researchers have been especially concerned with age-related declines in vision and audition. Rousseau, Lamson and Rogers (1998) offer an excellent review on this subject. The elderly perform less well than younger people in regards to the following visual abilities: color vision, contrast sensitivity, glare sensitivity, temporal resolution, visual acuity and visual search (Rousseau, Lamson and Rogers 1998). The age-related changes associated to these abilities might affect in many ways how older people will perceive a message.

Basically, there are two types of age-related changes in audition: loss in sensitivity to higher frequencies and difficulty distinguishing specific sounds in a noisy environment (Rousseau and al. 1998). For example, hearing deficiency related to the first type of change makes it more difficult to understand a female voice in comparison to a male voice. The second type of hearing change may especially affect how radio messages are received.

Psychological Changes

In the following section, we will pay special attention to three types of psychological changes which appear to have a significant impact on consumer responses: information processing, emotions, and personality.

Information-processing Changes. Information-processing changes are by far the most studied and discussed (in the category of "age-related changes") by researchers in marketing and consumer behavior (Law, Hawkins and Craik 1998; Rousseau and al. 1998; Yoon 1997; Cole and Balasubramanian 1993; Gorn, Golberg, Chattopahyay and Litvack 1991; Cole and Gaeth 1990; Gaeth and Heath 1987; Cole and Houston 1987; Roedder-John and Cole 1986). According to Roedder-John and Cole (1986) and Cole and Houston (1987), the deficiencies in learning and problem-solving are primarily attributable to limitations in working memory capacity and strategies. Given that findings in psychology and gerontology suggest only a modest decline in working memory with age, memory strategies appear to be the crucial determinant (Cole and Houston 1987). Basically, there are two memory strategies: one related to information encoding, and one to information retrieval (Roedder-John and Cole 1986). Based on an experiment, Cole and Houston (1987) suggest that the problem of memory strategy faced by older people in a communication context is related more to encoding than retrieval.

The limitations in learning and problem-solving of older people have several consequences on consumer behavior, especially when older consumers search for information (cognitive component). Several experiments propose that older people perform less well in recalling and recognizing television and print advertisement (Cole and Houston 1987; Roedder-John and Cole 1986); are more susceptible to misleading statements in advertisements (Law, Hawkins and Craik 1998; Gaeth and Heath 1987); have more difficulty findings relevant information when reading an informational label (Cole and Balasubramanian, 1993; and Cole and Gaeth 1990); use fewer information aids such as unit pricing and open-dating (Bearden and Mason 1979); and search less information than other clusters of consumers (Furse, Punj and Stewart 1984). In addition, decline in cognitive abilities can play an important role in other age-related declines, especially emotional and social ones

Memory deficiencies, and consequently learning and problem-solving abilities, would vary according to certain conditions. First, Phillips and Sternthal (1977) suggest that information self-pacing could help to diminish learning difference. Second, Cole and Gaeth (1990) suggest that the elderly can perform more easily certain problem-solving tasks if they receive before some instructions. Third, Cole and Gaeth (1990) recommend changing the designs of labels in order to make them more readable to the elderly. Fourth and fifth, point-of-purchase displays and the repetitions of a message appear to significantly favor memorization (Law, Hawkins and Craik 1998; Cole and Houston 1987; and Roedder-John and Cole 1986). Sixth, Gorn and al. (1991) mention that older people recall a greater number of elements when an advertisement is only musical (without verbal cues).

Emotional Changes. The influence of emotions on aging is a relatively new field of research. Recent studies reveal that emotional changes experienced by the elderly do not just affect their morale, and consequently their affective answers to marketing stimuli, but also other components of the aging process (see Maigai and McFadden (1996) for an excellent overview). Similarly, the emotional states of older people probably impact all the aspect of the decision process related to consuming. To our knowledge, no marketing researcher has formally studied the influence of the elderly's emotion on consumer responses.

Changes in Personality. The question of "how personality changes with age?" has been studied intensely in psychology and gerontology. In consumer behavior, just a few seem to have addressed this issue (Moschis 1994, and Lepisto 1985). For literature reviews on this complex topic, the reader should consult the article of Kogan (1990). In the following section, we briefly discuss two of the three models presented by Kogan (1990) (trait models and developmental stage models), and one summarized by Moschis (1994) (the cognitive personality theory). These models have been chosen since they offer relevant frameworks to understand how personality could affect consumer behavior. However, this does not constitute an extensive review of this large area of research.

Some researchers argue that as people age their frame of values and their personality traits do not change significantly (Kogan, 1990). This stability could have some marketing consequences, especially if older people believe in values which can impact their consumption decision process. For example, Laforge (1989) argues that low propensity of older people to complain is explained in part by their strong belief, acquired during youth, that companies are insensitive to customer problems.

Theorists belonging to the second school think that personality is built through different stages corresponding to different life periods (although there is a disagreement about when personality achieves stability). Among all the models, that of Erikson is probably the one which most clearly states that personality changes in old age (Kogan, 1990). According to his eight stage model, an individual in the last stage either accepts the inevitability of mortality and achieves wisdom, or despairs because he or she has not accepted the idea of dying. If this model is a good representation of reality, marketers have to deal with two types of older customers who perceive life in an opposite way. However, this developmental model has not received much of empirical support and has been severely criticized for its deterministic structure (Moschis 1994).

According to the cognitive personality model (largely inspired by work in psychoanalysis), personality is based on the interaction of environment, self-concept and social constraints (Moschis 1994). In later life, older people have difficulty adapting their perceptions of themselves (the self) to the new social environment characterized by the loss of some traditional roles (active parents, workers, etc.). In some cases, older people continue to act in line with a younger

"self-view". This attitude of "thinking and acting young" can have consequences on the products and services demanded by many older people and on the shopping atmosphere they look for (Moschis 1994).

Social Changes

Age related social changes refers to changes of roles experienced by people while aging. As people age, they reduce the number of their roles, and perform with less intensity the remaining roles. Social changes have a direct impact on different determinants which influence consumer behavior. In this sub-section, we focus on relationships and time availability. Apart from Moschis (1994) and Phillips and Sternthal (1977), few researcher have examined the social life of older people in the context of marketing.

Relational Changes. When an individual retires, the number and the variety of his or her interpersonal relationships decrease significantly. To compensate for the perceived lack of first hand information, several researchers theorize that senior citizens are likely to consult more intensively mass media than the general population (Moschis 1994; Stephens 1981; and Phillips and Sternthal 1977). The reduction of the variety and the number of interpersonal contacts does not mean that the elderly do not rely on other people as sources of information (Moschis 1994; and Phillips and Sternthal 1977). Given that they interact with a decreasing number of people, the ones regularly seen and consulted become more important, especially family members and friends.

Changes in Time Availability. In comparison with other segments of population, healthy older people might spend a considerable amount of time in social activities. This availability of time affects the way they collect information and shop. A recent study suggests that people who have more free time tend to shop more for hedonistic reasons, in contrast to utilitarian reasons (Bloch, Ridgway and Dawson 1994).

CONSUMER BEHAVIOR AND AGING

In this section, although we are primarily concerned by synthesizing the major findings concerning the differences between the elderly and younger people, we also pay special attention to underscore inconsistency in results.

Cognitive Responses

The cognitive dimension is probably the most studied aspect on the second dimension of the framework. In this sub-section, we focus on two issues having received a great deal of attention: sources of information and stores selection.

Sources of Information. In this section on sources of information, we look at four issues: the debate "formal sources of information" versus "informal ones," the debate "television" versus "print media," the motives underlining the use of mass media, and the use of in-store information. Some researchers suggest that older people, because of their reliance on mass media, may be particularly receptive to mass media (Davis and French 1989; and Stephens 1981). On the other hand, others mention that informal sources of information, especially family members and friends, are those which are the most important for the elderly (Phillips and Sternthal 1977).

The effectiveness of television versus print as an information source has also been a topic of debate. Some researchers suggest that print media is more effective for older people since they can self-pace the information presented within this media (Phillips and Sternthal 1977). In addition, print medium contains more information, an important concern for the elderly (Zeithaml and Gilly 1987). Other researchers propose that television is more effective, given its great capability to attract attention and to entertain (Cole

and Houston 1987; and Stephens 1981). In addition, this medium necessitates less effort in terms of concentration and information-processing.

Opposing the research that suggests that older people use mass media primarily to get information (Gorn and al. 1991; and Phillips and Sternthal 1977), recent empirical evidence shows that older customers refer to media for both entertainment and information motives (Rahtz, Sirgy and Meadow 1989). Rahtz, Sirgy and Meadow (1989) find that both chronological age and subjective age are strongly correlated to the construct "television orientation," which is defined as "a disposition to use television for entertainment and information-gathering purposes."

The level of familiarity, the perceived usefulness and the rate of usage with in-store information (nutritional labeling, open-code dating, and unit pricing) are significantly lower among the elderly than the population in general (Bearden and Mason 1979). This low propensity to use point-of-purchase information might be explained by the information-processing problems experienced by the elderly. However, Cole and Gaeth (1990) observe that the elderly can significantly increase their rate of usage if they receive instructions beforehand.

Store Selection. The store selection of older customers is a topic which was mainly studied at the end of the 70s and in the beginning of 80s (Tantiwong and Wilton 1985; Lumpkin, Greenberg and Goldstucker 1985; Lumpkin and Greenberg 1982; and Lambert 1979). Given the fundamental changes which have occurred in the retail industry structure since the early 90s, we will focus on aspects of store selection which remain relatively stable over time: shopping orientation and store attributes preferences.

According to Lumpkin and Greenberg (1982), even if older people tend to shop less frequently (for the specific case of apparel) than younger people, they seem to enjoy shopping. In addition, they point out that their results differ from those of Martin (1975), who suggests that the elderly shop primarily for utilitarian reasons. In light of recent typologies of customers (Boedeker 1995; and Bloch, Ridgway and Dawson 1994), Lumpkin and Greenberg's findings that propose that older people are recreational shoppers seems particularly open to question. In all the recent typologies, no relationship is found between chronological age and the fact of belonging to a recreational segment.

Concerning the attributes that the elderly considered before choosing a clothes store, Lumpkin, Greenberg and Goldstucker (1985) conclude that this segment of customers base their patronage decisions on criteria similar to those of younger people. Moreover, differences in "determinance scores" (for a list of store attributes) are not particularly significant between different groups of older people ("60-64," "65-74" and "75 and over"). This last finding conflicts with the main conclusion of Tantiwong and Wilton's (1985) research. The three segments of aged consumers they discuss, namely the "price-conscious," the "convenience-conscious" and the "price-convenient tradeoff," have, as their name indicates, different requirements when it is time to choose a retailer.

Affective Responses

In this sub-section, we focus on the two points related to the affect component which have received the most attention from academics: attitudes toward new technologies, and attitudes toward advertising.

Attitudes Toward New Technologies. The common belief that the elderly population is averse to technological change has been challenged by many researchers (Festervand, Meinert and Vitell 1994; Moschis 1987; and Zeithaml and Gilly 1987). Although adoption of new technologies is usually lower among the elderly (Zeithaml and Gilly 1987), some researchers believe that older

customers do not necessarily have a negative attitude towards these types of products, and that most of them believe that some new technologies could have a positive impact upon their lives (Festervand, Meinert and Vitell 1994; Moschis 1987). The low propensity by the elderly to adapt new technologies would be related more to a lack of information than to a negative attitude. On the other hand, this argument has not received much empirical support.

Attitudes Toward Advertising. To our knowledge, Davis and French (1989) are among the rare researchers who studied the attitude toward advertising of the elderly. They offer a typology of older female consumers (the "engaged," the "autonomous," and the "receptive") based on a segmentation basis that they call "advertising usage patterns and advertising attitudes and beliefs." "Engaged" customers do not believe in all claims made in advertisement. "Autonomous" customers seem especially critical towards the *raison-d'être* of advertising, and are suspicious of the claims made in commercials. "Receptive" customers, as the designation indicates, are the more favorable toward advertisements.

Behavioral Responses

In this section, we address the following issues: the purchase of products, purchase of brands, level of satisfaction, and propensity to complain.

Purchase of Products. We can logically conclude that the consuming patterns of the elderly are somewhat different for some categories of products (Moschis 1987). Older people spend more money (per capita) on products and services related to medical care, and they invest less intensively (per capita) in products and services related to professional life (transport and clothing), housing (mortgage and house furnishing), and children (education). However, their consuming patterns (per capita) for current consumption of goods and services (food, utilities and household operations) do not appear to be very different from those of younger people (Uncles and Ehrenberg 1990; and Moschis 1987).

Purchase of Brands. In a recent study, Uncles and Ehrenberg (1990) challenge the intuitive preconception that older consumers, given their reluctance to change and/or their limited spending power, only buy a limited number of brands. When the number of purchases per year is held constant, the number of brands purchased by the elderly is found to be similar to that of younger people (Uncles and Ehrenberg 1990).

Level of Satisfaction. Some researchers concluded that the level of dissatisfaction (after purchase) among the elderly is probably less than that of the population at large (Bernhardt 1981, and Bearden and Mason 1979). On the other hand, Zeithaml and Gilly (1987) find no difference between the level of satisfaction among the elderly and younger people for three new technologies (on four tested). These diverging results suggest that differences in satisfaction between the elderly and younger people might vary according to the type of products tested.

Propensity to Complain. Bearden and Mason (1979) find that complaining behavior by the elderly and the population is similar for food products. Both groups are reluctant to complain to management. Opposing this point of view, Bernardt (1981) suggests that older people are less likely to complain about physical products. Two principal reasons are proposed in the literature to explain this lower propensity to complain. First, older people believe that complaining usually gives little results (Bernardt 1981; and Laforge 1989). Second, some elderly customers because they experience some problems of mobility might be reluctant to complain (LaForge 1989).

OPPORTUNITIES, EVALUATION AND A NEW RESEARCH FOCUS

This last section is divided as follows: identification of opportunities of research, evaluation of the existing literature, and presentation of a new research focus.

Opportunities. If we refer to the conceptual framework (figure 1), we observe that some issues received more attention than others. For the dimension of "age-related changes," researchers in consumer behavior generally focus on information-processing (the first stream of research). Little research concerns emotional, biological, and social changes in consumer behavior contexts. A more balanced redistribution of attention and energy by researchers is probably needed given that all three categories of changes significantly influence consumer responses.

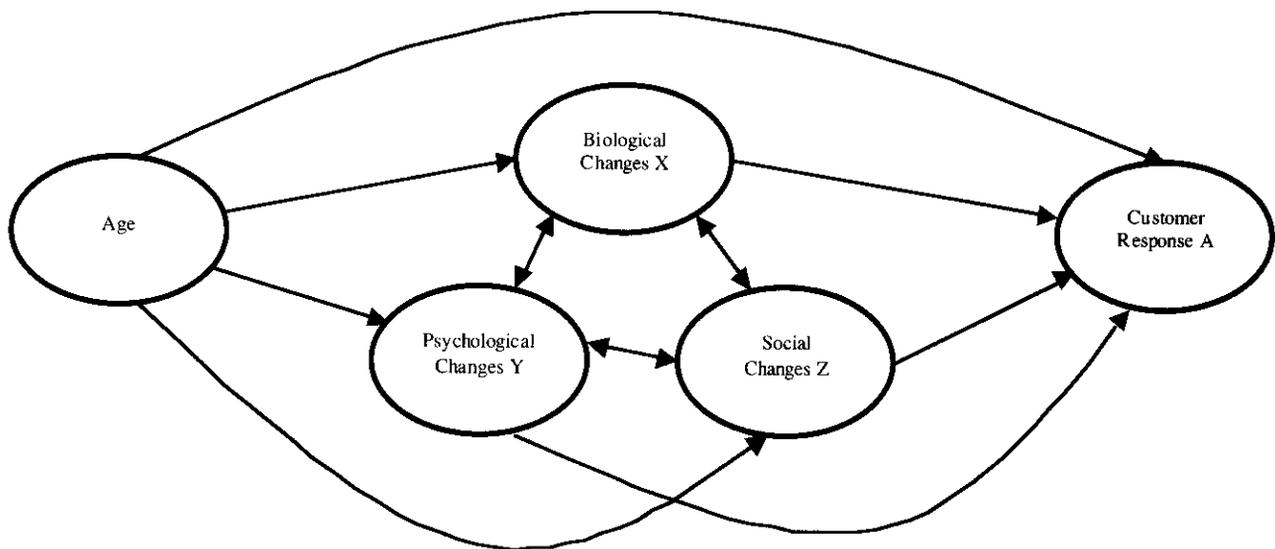
For the second dimension of the framework (the second stream of research), we observe a similar pattern. The cognitive dimension, particularly the issues related to sources of information, received far more attention in comparison to the affective and behavioral dimensions. This situation might be explained by the natural link that exists between information-processing and the search for information. The affective dimension has been especially neglected. To our knowledge, no research addresses such central topics as attitudes towards products and brands, and just a few studies concern attitudes towards advertising.

Evaluation. In the case of the first stream, tested theories and methodologies are accepted as being almost impeccable. Most of these theories have their roots in cognitive psychology and gerontology, two sciences especially advanced in studying the influences of aging. Hence, this stream can be considered an extension of the work made in other well-developed human sciences. In addition, the first stream helps us to understand an important cause, information-processing deficiencies, at the origin of many differences in consumer responses. However, it does not explicitly reveal how this cause interacts with other possible causes, and which consumer responses it influences. In other words, it does not draw relationships between other psychological changes (e.g., emotion and personality), other age-related changes (e.g., biological and social changes), and the different customer responses (e.g., cognition, affect and behavior) (see figure 2).

The quality of the information provided by the second stream is in part disappointing, especially in terms of the consistency of the findings related to customer responses. For many of the issues studied in this stream, there seems to be a divergence in opinions among researchers concerning differences between the elderly and younger people. These conflicting findings might be caused by the use of inappropriate theories. Most of the studies reviewed use chronological age as independent variables, despite the cautions raised by many researchers (Barak and Stern 1986; and Barak and Schiffman 1980). If we refer to figure 2, many researchers assume a direct relationship between chronological age and consumer responses, and do not take into account the influence of a set of biological, psychological or social changes. Researchers assume that behavioral differences can be explained by what has been demonstrated to be only vague cause (chronological age).

To overcome the theoretical challenge associated with the second stream, two alternatives were put forward in the literature: use of cognitive age (Barak and Stern 1986; and Barak and Schiffman 1980) and typologies (French and Bryan 1989; and Moschis 1993). However, even if these approaches might represent an improvement, they also have theoretical limitations. Although cognitive age was found to be a better indicator of biological, psychological and social aging than chronological age (Barak and Stern 1986), this

FIGURE 2
Theory XYZ for Consumer Response A



measure can not perfectly substitute a theory with precise constructs associated with relevant age-related changes. As interesting cognitive age can be as a measurement, it still offers only a general estimation of the causes, and not the real causes (Wilkes 1992). In the case of typologies, the relevance of this approach entirely depends on whether or not segmentation bases lie on strong theories. Apart from Moschis (1993), rare are the researchers who use segmentation bases which take into account different age-related changes. Rather they usually segment by using attitudes or lifestyles traits.

New research focus. The research focus we propose addresses the development of theories which are concerned with those relevant age-related changes which determine a given consumer response (see figure 2). As demonstrated in the section on age-related changes, a predetermined set of influences which impact all customer responses does not seem to exist. Thus, we suggest that specific theories should be developed depending on the studied responses. Two approaches seem especially meaningful to build such theories. First, one could refer to the abundant literature in gerontology and other relevant sciences, such as biology, psychology and sociology. Second, one can also use qualitative methodology, especially case studies. On this subject, many theorists argue that a naturalistic approach is particularly appropriate to theory building (Price, Arnould and Folkman Curasi 2000; Eisenhardt 1989; and Glaser and Strauss 1967). In the validation process, instead of paying attention mainly to the relationships between the concept of age (chronological, cognitive or both) and customer responses, we suggest that all the other relationships be assessed (see figure 2).

CONCLUSION

The purpose of this paper is to offer a framework that allows to integrate and critically review the literature on aging and consumer responses. We propose the present framework not only as an instrument to synthesize information, but also and mainly as a platform to build a general theory of aging in consumer behavior.

Basically, two conclusions are extracted from our analysis. First, given the narrow focus of academics interested by information-processing changes, and the weak conceptual development of the second stream, we still have a limited understanding of the impact of the complex phenomenon of aging on consumer responses. At this moment, we just have a limited number of insights to determine under which conditions practitioners should use specific strategies for aging people. Second, in order to really improve our knowledge on the subject, integrative theories which take account specific age-related changes have to be developed. The construction of these theories should be based on more advanced social sciences and qualitative research.

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