Nostalgia for Early Experience as a Determinant of Consumer Preferences

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ABSTRACT

Studies of music, motion pictures, movie stars, and fashion products have shown that styles popular during a consumer's youth can influence the consumer's lifelong preferences. The authors present an integrative model of this phenomenon and propose that these nostalgic effects are not limited to products that relate to the arts and entertainment or are primarily aesthetic. As an illustrative example, the authors investigate the effects of early experience on consumer preferences for automobile styles. Consistent with expectations, they find that men do but women do not show evidence of nostalgic attachment to the styles experienced in their youth—that is, their preferences peaked for products that were popular when they were young. Also, as expected, individual differences in the psychographic variable of nostalgia proneness play a role in moderating these effects. These findings expand the understanding of the generality, the boundaries, and the managerial relevance of the age-related peak-preference phenomenon. © 2003 Wiley Periodicals, Inc.

Marketing faces a continuing challenge of appealing effectively to consumers with heterogeneous preferences. The difficulty of doing this with

Psychology & Marketing, Vol. 20(4): 275–302 (April 2003)
Published online in Wiley InterScience (www.interscience.wiley.com)
 DOI: 10.1002/mar.10074

precision guarantees the importance of identifying the determinants of these differences in tastes. Toward this end, research on several entertainment products has indicated that the consumer's early experience plays a significant role in determining subsequent artistic favorites. For example, consumers form lifelong attachments to the styles of popular music that they encountered in their late teens and early twenties (Holbrook & Schindler, 1989). Similarly, consumers show enduring preferences for both movie stars and films that they experienced in their youth (Holbrook & Schindler, 1994, 1996). This early-experience phenomenon—analogous to imprinting (Lorenz, 1951) or to the existence of a critical period for learning (Bornstein, 1989)—can be considered an example of the influence of nostalgia on consumer tastes (Holbrook & Schindler, 1991).

The present article expands the investigation of nostalgic preferences by considering the generality of these effects. Do nostalgic preferences exist for consumer goods that are not entertainment-related or primarily aesthetic in nature? What might make some people more likely than others to be influenced by nostalgia? The authors first review the evidence for consumption-related early-experience effects and for differences in nostalgic effects due to gender and to a psychographic variable, nostalgia proneness. They present a model that provides a theoretical integration of these results. They then report the results of an empirical test for early-experience effects in a product category very different from those that have previously been studied—namely, automobiles. Finally, the authors consider the results of this study in the context of the theoretical model and discuss the applications-related issues of concern to marketing managers.

Existence of a Critical Period in the Development of Tastes for Entertainment Products

Some recent research on the formation of tastes for entertainment products has relied on what Holbrook and Schindler (1996) have termed the method of *time-dated stimuli.* This approach involves finding products that are primarily identified with a narrow time frame, usually because their widespread popularity was limited to that brief period. A set of such time-dated stimuli is assembled so that all time periods within a lengthy span of years are represented. A sample of consumers of widely varying ages then evaluates each of these time-dated objects on some appropriate measure of affect. The results are analyzed by treating relative preferences as a function of the consumer's *product-specific age*—the age of the responding consumer at the time the relevant object was popular.

To review briefly, Holbrook and Schindler (1989) investigated the development of tastes in popular music by asking consumers ranging in age from 16 to 86 years old to evaluate a set of excerpts from popular

songs dating from 1932 ("Smoke Rings" by the Mills Brothers) to 1986 ("Sledgehammer" by Peter Gabriel). The results showed a strong nonmonotonic relationship of relative liking for a musical excerpt to product-specific age ($R^2 = 0.71$) in the form of an inverted U-shaped curve. Songs that were popular after respondents were fully mature adults or before they had reached puberty were liked less than songs that were popular when respondents were in their late teens and early twenties. The peak of this nonmonotonic age-related preference function occurred at a product-specific age of about 24 years old.

The same authors have also found comparable age-dependent preference peaks for film-related entertainment products. Specifically, liking for movie stars peaked at age 14 (Holbrook & Schindler, 1994), and liking for Academy-Award-winning motion pictures peaked at age 27 (Holbrook & Schindler, 1996). Together, these studies provide consistent evidence that enduring tastes in artistic entertainment develop largely from what consumers experience during their adolescence and early adulthood.

Holbrook and Schindler (1989) have noted that this phenomenon is loosely analogous to that of imprinting in birds and other animals (Lorenz, 1951). In imprinting, the organism forms an enduring bond with an object (such as its mother) to which it is frequently and closely exposed during a critical period early in its life (Bornstein, 1989). Holbrook and Schindler (1991) have further suggested that the age-related preference peaks for entertainment products reflect a form of nostalgia. Specifically, they have proposed that nostalgia involves preferences for things or experiences that were more common when one was younger. Generally, this implies that the nostalgic targets are no longer as available, accessible, or widely circulated as they once were (songs no longer heard on the radio, movie stars whose careers have ended, films that have disappeared from the theaters and television). Conversely, it would not make sense to speak of nostalgia for objects from one's youth if those objects have continued to be commonly or easily experienced (cucumbers, Oreo cookies, *The Price Is Right*).

Individual Differences in Nostalgic-Preference Effects

To investigate whether the age-related preference peak just described occurs in a primarily aesthetic product category not directly related to arts and entertainment, Schindler and Holbrook (1993) applied the method of time-dated stimuli to assessing the effect of early experience on the formation of tastes in fashions. They asked men and women consumers to evaluate the attractiveness of male and female models in print ads from fashion magazines dated between 1933 and 1990. Although these authors did find an overall inverted U-shaped preference function (comparable to that which typifies entertainment products), most of this age-related peaking effect reflected the men's ratings of the

female models. Men rating female models showed a moderately good fit ($R^2 = 0.46$) to a distinctly nonmonotonic age-related preference function with a peak at a product-specific age of 24 years old. By contrast, all other ratings (men rating males and women rating males or females) showed a poorer fit ($R^2 = 0.20$) to a less peaked preference function centered at age 41.

In accounting for these prominent gender differences for fashion-related preferences, Schindler and Holbrook suggested that the age-related preference peak should be most clearly observable when experience with the product involves particularly strong feelings. Along these lines, there is evidence that women's physical appearance is especially important in the dating and mate-selection behavior of young men (Buss & Barnes, 1986; Walster, Aronson, Abrahams, & Rottman, 1966). The resulting intense feelings may cause adolescent and young adult men to bond very strongly to current women's fashions. It may have been these particularly strong feelings that enabled the age-related peak to appear most clearly in the case of men rating female models. The men's strong emotional reactions to the female styles of their youth may have been potent enough to overwhelm possible counteracting forces such as the comfort-related or social-image dysfunctionalities of these older styles.

When investigating the formation of consumer tastes in the entertainment-product category, Holbrook and Schindler have demonstrated a second type of individual difference in nostalgic preference effects. Specifically, they have found that a psychographic variable—attitude toward the past or *nostalgia proneness*—is associated with individual differences in early-experience effects. With the use of the Nostalgia Index (Holbrook, 1993; 1994)—a multiitem measure of nostalgia proneness—Holbrook and Schindler (1994) showed that the age-related peak in consumer preferences for movie stars occurred at an earlier product-specific age among more nostalgia-prone consumers than among consumers rating lower on this index. A similar peak shift between high-nostalgia respondents and low-nostalgia respondents appeared in preferences toward Academy-Award-winning movies (Holbrook & Schindler, 1996).

Further, an effect consistent with the "strong feelings" explanation also occurred for the movie-star data. Specifically, the nostalgic preference-peak shift tended to appear primarily for the case of more versus less nostalgia-prone men rating female stars as opposed to the cases of women rating female stars or either gender rating male stars.

An Integrative Model of Nostalgic Preferences

The factors that have been shown in this past research to affect nostalgic preferences can be summarized and integrated by the theoretical model shown in Figure 1.

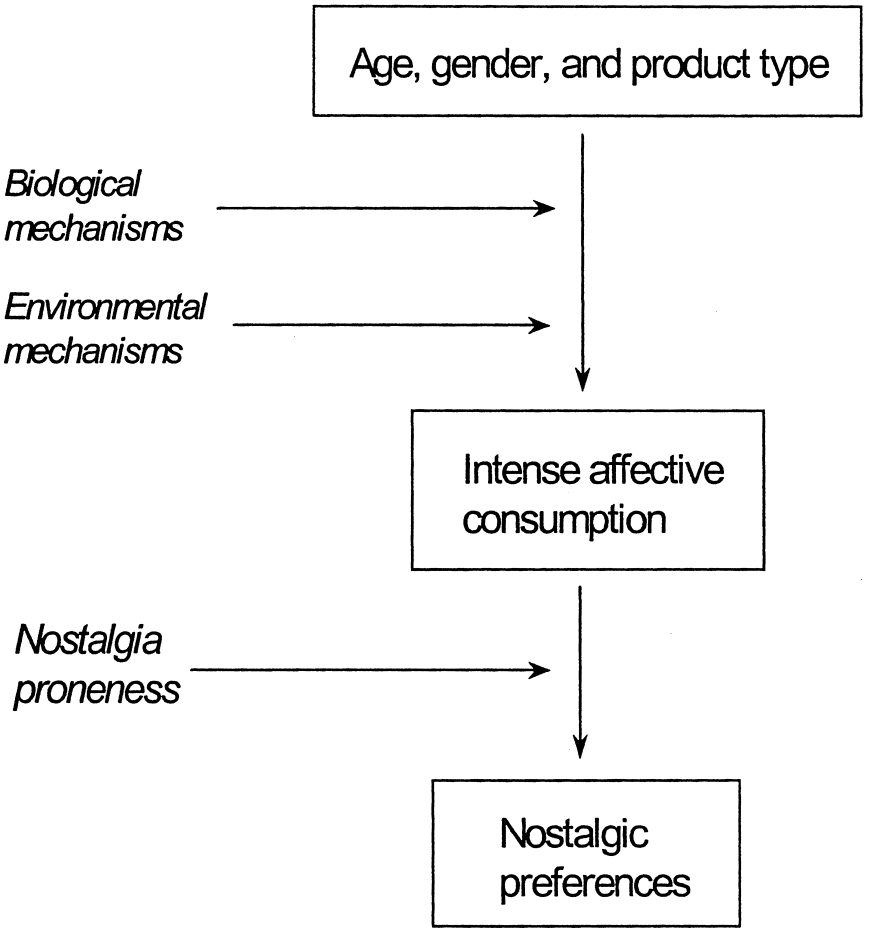


Figure 1. Integrative model of nostalgic preferences.

A common factor in the past studies of nostalgic preferences appears to be the experience of a period of intense affective consumption. Music and movies are likely to elicit intense good feelings for adolescents and young adults. Young men's impressions of female movie stars or feminine fashions are also likely to elicit intense positive feelings and can thus also be considered a form of intense affective consumption.

This leads to the proposition that the experience of a period of intense affective consumption is necessary for the development of nostalgic consumer preferences. That is, when consumption in a product category is characterized by intense positive emotional experience, this experience will tend to have the effect of making the tastes that exist during this experience into enduring preferences. When and to what degree such a period of intense affective consumption will occur—that is, its timing and strength—should depend, in turn, on the consumer's age and gender and on the type of product involved.

These variables can affect intense affective consumption in conjunc-

tion with biological mechanisms. Age may affect the consumer's experience of intense affect because of its effect on the level of emotional energy available. In particular, the period of adolescence begins a release of hormones that stimulate the libido and act to raise the individual's emotional tension. The differing hormones in males and females could lead gender to affect intense emotional consumption, as in the tendency for the sexual feelings of young men to be strongly affected by the appearance of females. Similarly, some product types may be more likely to cause intense affect than others because of differences in the innate potency of stimuli. For example, studies of newborns indicate that as a species humans are innately prepared to respond to stimuli such as speech sounds and the visual form of a face (e.g., Seligman, 1970). Such stimuli are analogous to what are termed *releasing stimuli* in animal research, and may give the sights and sounds of movies and other arts and entertainment products an innate potency for evoking intense affect.

Age, gender, and product type are also likely to influence intense affective consumption in conjunction with environmental mechanisms. A wide array of environmental forces—such as learning, reference groups, and cultural norms—act to influence people of each age and gender to become more involved in, and thus to experience stronger positive affect from, one type of product than another. For example, anecdotal evidence would suggest that such environmental forces—for example, friends and neighbors—may lead to a higher likelihood of younger women being involved with make-up and older women being involved in crafts such as needlepoint. Similarly, environmental forces may lead to a higher likelihood of younger men being involved in video games and older men being involved in gardening.

Although the experience of a period of intense affective consumption may be necessary for the development of nostalgic preferences, this effect should also depend on one's attitude toward the past. From the moderating effects of nostalgia proneness shown in previous studies, it appears that consumers who do not have a liking for the past may be drawn to emotional experiences that occur later, rather than earlier, in their youth, or may even ignore their past emotional experiences and focus only on current factors when forming stylistic preferences.

Expectations Concerning Nostalgic Preferences for Nonentertainment Products: The Illustrative Case of Automobile Styles

Entertainment-related and primarily aesthetic products such as movie stars and popular music are not the only products that can be associated with periods of intense affective consumption. Rather, it is likely that almost any product can be the object of consumer excitement or enthusiasm. As an example, consider the case of automobiles—large, expen-

sive, utilitarian, durable products that in many ways could not be more different from an actor's image or a recorded musical performance. Yet, automobile clubs and shows are evidence of the great enthusiasms that cars can generate, and the excitement that cars can elicit in adolescents and other young people is often observed. A period of such strong, positive, affective consumption could lead to enduring preferences for the styles of automobiles that were popular during that period. Thus, the first hypothesis of this investigation—pertaining to automobiles as an illustrative case—is as follows:

H1: Nostalgic preferences—that is, a general age-related preference peak—will occur in the automotive product category.

However, the model would also predict that the automotive product category is a category where one would expect variability in nostalgic effects. Although an imaginative observer could liken the automobile's headlights and grille to a pair of eyes and a mouth, the visual features of automobiles generally do not include the human, animal, or other forms likely to be inherently powerful emotional releasers for humans. This lack of any general innate capacity to arouse emotion would leave individual factors as the main determinants of whether or not a consumer experiences intense affective consumption associated with automobiles.

Because the genders differ substantially in the strength of their involvement with automobiles, it would be expected that gender would be one such individual factor. Boys tend to play with toy cars more than girls (Luria & Herzog, 1991). Male children and adults can name and recognize automobile types more accurately than can females (Davies & Robertson, 1993). Men appear to be more sensitive than women to automotive consumption symbolism (Belk, Bahn, & Mayer, 1982). Males show a greater tendency than females to use cars to enhance self-expression and feelings of self-efficacy (Farrow & Brissing, 1990). Men have been found to be more likely than women to browse in automobile-dealer showrooms (Bloch & Richins, 1983), and have been found to score significantly higher than women on an eight-item Automobile Involvement Index (Bloch & Bruce, 1984). Although this greater male involvement with automobiles seems to be due mostly to culturally learned gender roles, there may also be a biological component. Many young men use automobiles for dating and may therefore tend to associate their cars with intense feelings related to eroticism and sexual conquest.

This greater automobile involvement makes young men more likely than young women to be intense emotional consumers of automobiles. One would expect that this greater strength of the appreciation for the cars of their youth would lead to a more pronounced nostalgic effect among young men. Specifically, as a second hypothesis,

H2: Men will show a more distinct age-related preference peak in automobile preferences than will women.

If an age-related preference peak observed in consumer tastes for automobile styles exemplifies the same nostalgic phenomenon that has been demonstrated for entertainment-related and primarily aesthetic products, then preferences among automobile designs should also display a peak shift due to individual differences between consumers in nostalgia proneness. Thus,

H3: Highly nostalgia-prone automobile consumers should show a preference peak at an earlier product-specific age than that shown by automobile consumers relatively low in nostalgia proneness.

Although Holbrook's Nostalgia Index has successfully predicted a preference-peak shift in the cases of two entertainment products, the general applicability of this measure of nostalgia proneness across a wide range of product types has not been demonstrated. Thus, it is possible that a comparable nostalgic peak shift might not be apparent in preferences toward automobile styles simply because of some limitation in the general applicability of the Nostalgia Index itself. In anticipation of this possibility, the present study of automobile preferences included two additional nostalgia-proneness measures. The first is the Antiquarianism Scale from McKechnie's (1974, 1977) Environmental Response Inventory. The second is the Experience Scale from the Taylor and Konrad (1980) study of personal dispositions toward the past. Both of these indices were developed in the context of environmental psychology rather than consumer research, and thus offer measures of nostalgia proneness independent in origin from that provided by Holbrook's Nostalgia Index. They lead to the following research question:

RQ: To what extent do the Holbrook, McKechnie, and Taylor and Konrad indices converge as measures of nostalgia proneness and in their respective abilities to predict or explain a nostalgic shift in the age-related preference peak for the illustrative case of automobiles?

Overview of the Study

The study reported here uses the aforementioned method of time-dated stimuli to assess the role of early experience in the consumer's preferences for product appearances in a category illustrative of those that are neither entertainment-related or primarily aesthetic—namely, automobiles. The time-dated stimuli comprise 80 photographs of automobiles, each introduced in one of the years between 1915 and 1994. Male and female consumers of ages ranging from 16 to 92 years old rated

their liking for the appearance of each automobile. The study provides the opportunity to observe the degree to which an age-related preference peak exists in the illustrative case of automobiles as a product category and to test the hypothesis that men's preferences for automobile styles should show this peak more strongly than do women's preferences.

In addition, as noted in the preceding section, each respondent in the study was given three sets of items that measure nostalgia proneness: Holbrook's Nostalgia Index, McKechnie's Antiquarianism Scale, and the Taylor and Konrad Experience Scale. Measuring nostalgia proneness enables an analysis of whether any age-related preference peak that appears tends to occur earlier, as expected, for more nostalgia-prone consumers. Including three indices of nostalgia proneness in the study allows an exploration of the generality and interrelatedness of these alternative measures.

METHOD

Stimulus Objects

The stimulus objects were 80 automobile photographs selected from a large set of 5½ × 4-in. prints published for collectors by Edito-Service S.A. For each of the 80 years between 1915 and 1994, an automobile model that first appeared that year was selected. Within this time constraint, the selection process favored cars that were likely to be seen on the road or in the media by American consumers and that seemed to reflect the styles common during the relevant time period. A complete list of the selected automobile models appears in Appendix A.

The cars were photographed in a parked position with various neutral outdoor scenes in the background. Each photograph was reproduced in black and white on a separate sheet of paper. No name or other information about the car was included on the page, and the page was identified only by a randomly selected pair of letters. The 80 pages were randomized and assembled into booklets in a manner such that each respondent's booklet contained the automobile photographs in a different random order.

Measures of Nostalgia Proneness

Each respondent completed three multiitem indices of nostalgia proneness. After each item, the respondents indicated their level of agreement on a numerical scale where the higher number represented greater agreement. Holbrook's (1993; 1994) Nostalgia Index consisted of 20 items and used a 9-point scale. McKechnie's (1974; 1977) Antiquarianism Scale also consisted of 20 items but used a 5-point scale. The Taylor and Konrad (1980) Experience Scale consisted of 12 items and also used

a 5-point scale. The order of presentation of these three nostalgia-proneness measures was systematically rotated among respondents. Lists of the items included in these three indices appear in Appendix B.

The responses to the individual items were combined to form nostalgia-proneness indices. For each measure, the raw numerical scores were normalized by subtracting their mean for each respondent separately (so as to reduce the effects of scale-response biases), reversed as appropriate so that a higher value indicated greater nostalgia proneness, and standardized across respondents (mean = 0.0, SD = 1.0). Then the scores were summed to produce, for each multiitem index, a single number representing each respondent's level of nostalgia proneness according to that index.

Task

The respondents met in groups varying in size from 6 to 32 people. Each respondent was given a booklet containing the 80 randomly ordered automobile pictures followed by the three nostalgia-proneness indices. The last page of the booklet contained questions about the respondent's background and demographic characteristics.

The respondents were instructed to look at each automobile photograph and to indicate their feelings about the appearance of the car by circling one of the numbers ranging from 1 to 9 included on each page in a vertical column to the right of the photograph. This 9-point scale was anchored by the phrases "I dislike the appearance a lot" (1) and "I like the appearance a lot" (9). To avoid scale-response bias, these liking scores were normalized for each respondent (by subtracting their mean across the photos rated by that respondent).

After rating the appearances of the pictured automobiles, the respondents were instructed to complete the three measures of nostalgia proneness and then the background questions on the last page. This last page included questions about the respondent's (1) gender, (2) date of birth, (3) age when first beginning to drive, and (4) age at first automobile purchase.

Sample

The respondents were members of groups selected to include men and women of a wide variety of ages. The groups included high school and undergraduate college classes; social, church, and civic associations; and senior citizens' organizations. The students received course credit for their participation. The nonstudent groups were given a contribution of $3 per responding member.

The resulting sample consisted of 225 respondents. Of these, 144 (64%) were men and 81 (36%) were women. These respondents ranged

in age from 16 to 92 years old, with a mean age of 47.5 (SD = 20.4) and a median age of 46.

Answers to questions concerning the age at which the respondent first drove and first owned a car tended to support the assumption of greater involvement with automobiles among the male respondents. Specifically, the men reported driving at an earlier age than the women (16.9 versus 19.2 years old, $t[214] = 3.31$, $p = .002$) and owning their first car at an earlier age (20.5 versus 22.5 years old, $t[199] = 2.39$, $p = .02$).

Analyses

Consistent with previous studies of nostalgia, ordinary least-squares regression analyses were used to test both for a general inverted-U-shaped relationship of liking for automobiles to product-specific age and for the hypothesized differences in this age-related peak due to gender and nostalgia proneness. In recognition of the many extraneous factors that could cause differences in liking between the 80 automobiles in the study (as, for example, between the AMC Pacer and Jaguar XJ-S Convertible), a procedure was adopted to control for these differences. Specifically, each of the 80 automobiles was represented by a 0/1 indicator variable and entered into a regression model with the respondents' normalized liking scores as the dependent variable. The residuals from this regression analysis—that is, the liking scores adjusted for car-specific differences between stimuli—were then used as the dependent variable in the study.

Product-specific age (PSA) was computed by subtracting the year of a respondent's birth from the year an automobile was introduced. A separate PSA was computed for each respondent's rating of each automobile photograph. For each regression analysis, the adjusted liking scores (i.e., the residuals just described) were averaged across respondents for each value of PSA to form mean liking scores. In each regression analysis, PSA was standardized (mean = 0.0, SD = 1.0) to reduce the correlation between the linear and squared terms (PSA and PSA^2) so as to avoid problems with multicollinearity.

In an aggregated-by-gender analysis, the adjusted liking scores were averaged for each PSA separately for males and females. These mean liking scores were regressed on PSA, PSA^2, gender (coded 1/−1 for males/females), and multiplicative terms indicating interactions between gender and product-specific age (gender × PSA, gender × PSA^2). A significant negative coefficient of PSA^2 would indicate an age-related preference peak supportive of the existence of nostalgic preferences hypothesized in H1. A significant negative coefficient for gender × PSA^2 would support H2, the expectation that there will be a steeper, more pronounced preference peak for men than for women.

Because (as expected and as described later) the male respondents

(but not the females) showed an age-related preference peak, it was possible to test for the presence of a peak shift due to nostalgia proneness in the men's (but not the women's) data. This test involved carrying out a disaggregated analysis where the men were divided into those high and those low in nostalgia proneness based on a nostalgia-proneness measure. The mean liking scores were computed by averaging adjusted liking scores for each PSA separately for high and low nostalgia-prone men. These mean liking scores were regressed on PSA, PSA^2, NOST (nostalgia proneness, coded 1/−1 for high/low proneness), and the appropriate interaction terms (NOST × PSA, NOST × PSA^2). A significant negative coefficient for NOST × PSA would support H3, the expectation that the age-related preference function will peak at an earlier product-specific age for respondents who are more (rather than less) nostalgia prone. An analysis of this type was conducted for each of the three nostalgia-proneness indices used in the study.

The division of the sample into those high and low in nostalgia proneness was accomplished in previous research (e.g., Holbrook & Schindler, 1996) through the use of a median split. However, in the present data, it was found that results were quite sensitive to the nature of the split (e.g., the results for a 47%/53% division might differ considerably from those for a 50%/50% split). Thus, rather than use the arbitrary median split, the optimum split was determined empirically by ordering the respondents by a nostalgia-proneness index and carrying out the regression described above for every split between 20%/80% and 80%/20% for that measure. For each of the three indices, the split chosen was the one that showed the highest R^2 for this regression. For the Holbrook index, the (high/low proneness) split was 70%/30%; for the McKechnie index, the split was 52%/48%; and for the Taylor and Konrad index it was 77%/23%.

RESULTS

Age-Related Preference Peak

The results of the aggregated-by-gender regression analysis appear in the first column of Table 1. The PSA-squared term does show the negative coefficient ($t = -2.14$, $p = .03$) that indicates, for the entire sample, the inverted-U-shaped relationship between mean adjusted liking and PSA that is characteristic of the existence of nostalgic preferences. Thus, this result supports H1. The highly significant negative coefficient for the gender-by-PSA-squared term ($t = -4.11$, $p = .0001$) indicates that the coefficient of the PSA-squared term is significantly more negative for the men than for the women. This interaction supports H2, the expectation of a more pronounced preference peak for men than for women.

To further examine this interaction, the regression was repeated sep-

Table 1. Results of Regressing Mean Liking for an Automobile on Product-Specific Age, PSA-Squared, Gender, and the Relevant Interactions.

	Regression Coefficients		
Independent Variables	Overall	Men Only	Women Only
Intercept	0.071741	0.131500[c]	0.011982
Product-specific age (PSA)	0.016539	0.141011[a]	−0.107933[c]
PSA squared	−0.082181[c]	−0.239843[a]	0.075481
Gender	0.059759		
Gender × PSA	0.124472[b]		
Gender × PSA-squared	−0.157662[a]		
R squared	0.125[a]	0.225[a]	0.033

[a] $p \leq .0001$.
[b] $p \leq .001$.
[c] $p \leq .05$.

arately for the men's and women's mean-liking scores. The results of these regressions appear in the second and third columns of Table 1. For the men, the effect of PSA-squared is highly significant in the negative direction ($t = -5.26, p < .0001$). This indicates a pattern in which liking is low for automobiles introduced before the men were born (PSA very negative), peaks for cars that appeared when the men were in their youth (PSA in middle of its range), and falls back again for cars introduced when the men were more advanced in years (PSA very positive). By using simple calculus and then multiplying by PSA's standard deviation (44.13) and adding back PSA's mean (12.77), the coefficients shown in the second column of Table 1 indicate a preference peak for men that occurs at a product-specific age of about 26 years old (maximum mean liking at PSA = 25.74). Thus, as expected, the male respondents show the hypothesized inverted U-shaped function with a preference peak within the period of late adolescence or early adulthood.

For the women's data, the regression model achieved only a poor fit, not even accounting for a statistically significant proportion of the variance (3.3%). Further, the coefficient of women's PSA-squared term was positive, but did not reach statistical significance. These additional regressions enhance the study's support for the expectation of H2 that women would exhibit a less distinct inverted U-shaped curve than men. Indeed, because women show no sign at all of forming enduring preferences for the automobile styles of their youth, these regressions also support the expectation of substantial variability in the occurrence of nostalgic preferences in the automotive product category.

Performance of the Three Nostalgia-Proneness Indices

The Holbrook and Taylor/Konrad nostalgia-proneness indices showed satisfactory reliability (Holbrook, $\alpha = 0.81$; Taylor/Konrad, $\alpha = 0.71$),

whereas the reliability of the McKechnie index was only marginally acceptable ($\alpha = 0.61$). Despite the common impression that the tendency toward nostalgia increases with age (e.g., Davis, 1979), none of these three nostalgia-proneness indices provide any evidence of this. The Holbrook index showed no statistically significant correlation with the respondent's age ($r_{\text{Holbrook, age}} = 0.01$), confirming a result found in previous studies (Holbrook, 1993; 1994; Holbrook & Schindler, 1994). The McKechnie index was also not significantly correlated with age ($r_{\text{McKechnie, age}} = 0.08$, $p = .23$). Although the Taylor/Konrad index did show a significant correlation with age, it was in the counterintuitive direction indicating greater nostalgia proneness among younger (rather than older) consumers ($r_{\text{Taylor/Konrad, age}} = -.34$, $p < .001$).

Although the McKechnie and Taylor/Konrad indices were moderately correlated to each other, both were only weakly correlated to the Holbrook index ($r_{\text{M,T/K}} = .56$, $p <. 001$; $r_{\text{H,M}} = .22$, $p = .001$; $r_{\text{H,T/K}} = .14$, $p = .04$). With regard to the research question, this indicates that the three indices exhibit only very limited convergence as measures of nostalgia proneness.

Because the men, but not the women, showed an inverted U-shaped function relating liking to product-specific age, only the men's data were appropriate for testing the hypothesized shift in the peak of this function due to nostalgia proneness. The less aggregated regression analysis used to carry out this test was conducted separately using the Holbrook, McKechnie, and Taylor/Konrad nostalgia-proneness indices. The results of these three analyses appear in Table 2.

In one important aspect, there is complete agreement between these

Table 2. Results of Regressing Men's Mean Liking for an Automobile on Product-Specific Age, PSA-Squared, Nostalgia Proneness, and the Relevant Interactions.

	Regression Coefficients		
Independent Variables	Holbrook Nostalgia-Proneness Index	McKechnie Nostalgia-Proneness Index	Taylor/Konrad Nostalgia-Proneness Index
Intercept	0.120714[c]	0.108009[c]	0.113237[c]
Product-specific age (PSA)	0.172251[a]	0.016131	0.258278[a]
PSA squared	−0.217214[a]	−0.156801[a]	−0.258959[a]
Nostalgia proneness (NP)	0.011900	−0.032690	−0.012437
NP × PSA	−0.097991[b]	−0.290340[a]	−0.169699[a]
NP × PSA-squared	−0.018284	0.039260	0.059774
R squared	0.193[a]	0.347[a]	0.342[a]

[a] $p \leq .0001$.
[b] $p \leq .005$.
[c] $p \leq .05$.

three nostalgia-proneness indices. Specifically, each measure shows a statistically significant interaction between nostalgia proneness and PSA (Holbrook, $t = -2.94$, $p < .005$; McKechnie, $t = -10.57$, $p < .0001$; Taylor/Konrad, $t = -5.31$, $p < .0001$), and all of these interactions have negative signs. These results provide strong support for the prediction of H3. The inverted U-shaped curve peaks at a lower product-specific age for high nostalgic male respondents than for low nostalgic male respondents no matter which of the three nostalgia-proneness indices is used.

However, there was not complete agreement between the three nostalgia-proneness indices in the specific positions of the preference peaks for the high and low nostalgic male respondents. In particular, whereas the preferences of the Holbrook index's high nostalgics peaked at a product-specific age of 18 and the preferences of the Taylor/Konrad index's high nostalgics peaked at a product-specific age of 20, the preferences of the McKechnie index's high nostalgics peaked at a product-specific age of − 37. Because of this substantial disagreement between the nostalgia-proneness indices, it appears appropriate to consider the possibility that these measures are tapping different aspects of liking for the past.

Factor Analysis of the 52 Nostalgia-Proneness Items

To explore this possibility, the 52 items included in the three nostalgia-proneness indices (20 each for the Holbrook and McKechnie measures and 12 for the Taylor/Konrad measure; see Appendix B) were factor analyzed to determine their underlying dimensions. A principal-components analysis supported a solution based on two dimensions in that a sharp elbow occurred after the first two eigenvalues (5.77, 4.49); the next eigenvalue declined markedly (2.73) and the others decreased gradually after that (e.g., 2.52, 2.30, 2.17). A varimax rotation of this two-factor solution produced the factor loadings shown in Table 3.

Examination of these factor loadings indeed supports the conclusion that the indices used in this study to measure nostalgia proneness do not all measure the same aspect of liking for the past. The items that load heavily on Dimension 1—all items from the McKechnie and Taylor/Konrad indices—tend to concern liking for things or objects from days of yore. For example, of the seven items with Dimension1 factor loadings greater than 0.5, all involve liking old buildings, old or antique furniture, or old or antique things in general. This liking-of-antiques aspect of liking for the past will be referred to as the Antiques dimension. By contrast, the items that load heavily on Dimension 2—all items from the Holbrook index—tend to concern the belief that the passing of time is associated with a decline in conditions. Four of the five items with Dimension-2 factor loadings greater than 0.5 clearly express this theme—agreeing that "Things used to be better in the good old days"

Table 3. Loadings of 52 Nostalgia-Proneness Items on Two Underlying Dimensions.

Item Number, Short Description	Dimension 1: Antiques	Dimension 2: Decline
M20, old buildings usually depressing[a]	0.781	0.031
M9, like to live in modern community[a]	0.705	0.113
T10, like old house, antique furniture	0.640	0.091
M7, like modern furniture[a]	0.638	−0.016
T1, don't understand keeping old things[a]	0.566	0.038
M2, enjoy browsing in antique shops	0.529	−0.071
T5, don't like things that are old[a]	0.510	0.020
M3, like places that feel old	0.497	−0.083
T6, old things catch my eye	0.482	0.062
T4, like older parts of city	0.481	−0.057
T11, antiques are simply old junk[a]	0.479	0.057
T7, never buy things that are old[a]	0.449	0.014
M13, no interest in ballet[a]	0.415	0.145
T12, like visiting historical sites	0.409	0.077
M12, would like to live in historic house	0.383	0.093
T9, old parts of city are rundown[a]	0.380	−0.027
M19, fond of oriental rugs	0.319	−0.215
M11, sensitive to building's "character"	0.314	−0.023
T8, interested in prehistoric times	0.292	0.028
H2, newer is almost always better[a]	0.287	0.284
M5, would rather remodel old house	0.268	0.242
M18, like things others would consider junk	0.229	0.161
M14, like to read about history of places	0.222	0.064
M15, enjoy going to the opera	0.210	−0.184
M1, enjoy browsing in bookstores	0.168	−0.110
M6, like old-fashioned costumes	0.167	0.028
H6, yesterday, troubles seemed far away	0.143	−0.005

(continued)

and disagreeing that "Technological change will ensure a brighter future," "In the future, people will have even better lives," or "I must admit, it's getting better, better all the time." This belief-in-decline aspect of liking for the past will be referred to as the Decline dimension.

To determine if the identification of these two separate aspects of liking for the past can help disambiguate the differing results obtained from the three multiitem indices, the respondents were divided into high and low segments on the basis of the Antiques and Decline dimensions and the less-aggregated regression analysis described earlier were repeated with these redefined segments. By using the factor score on each dimension to characterize each male respondent and applying the same maximum R^2 procedure used for the three multiitem indices, high/low splits of 38%/62% for the Antiques dimension and 79%/21% for the Decline dimension were produced. The results of the less aggregated regression analysis for each dimension appear in Table 4.

As was the case for the Holbrook, McKechnie, and Taylor/Konrad in-

Table 3. *(Continued)*

Item Number, Short Description	Dimension 1: Antiques	Dimension 2: Decline
H9, technological change brightens future[a]	−0.004	0.750
H3, people will live better in future[a]	0.161	0.609
H12, it's getting better all the time[a]	0.109	0.579
H4, things were better in good old days	0.162	0.543
H13, the truly great sports heroes are gone	0.002	0.504
H5, believe in constant march of progress[a]	−0.078	0.499
H15, today's standard of living is highest[a]	−0.040	0.498
H17, experiencing decline in quality of life	−0.044	0.474
H7, products are getting shoddier	−0.199	0.468
H1, they don't make 'em like they used to	0.168	0.456
H20, business builds better tomorrow[a]	0.035	0.451
H16, almost want to return to the womb	−0.098	0.435
H8, compared to parents, we've got it good[a]	0.057	0.430
H10, when younger, I was happier	0.097	0.400
H14, history involves steady improvement[a]	−0.166	0.368
H19, today's music is mostly trash	0.150	0.359
H11, new movie stars could learn from old pros	0.046	0.331
H18, GNP growth has increased happiness[a]	0.096	0.310
M8, old sections of city are more interesting	0.095	0.284
M16, modern buildings are less attractive	−0.040	0.243
M17, enjoy movies made 15 or 20 years ago	−0.105	0.236
M4, like homes with stone floors	0.100	−0.197
T3, past is best preserved in books[a]	0.022	0.149
T2, pioneer reconstructions more interesting	0.032	0.068
M10, enjoy working in a flower garden	−0.034	−0.040

Note: H numbers are Holbrook items, M numbers are McKechnie items, and T numbers are Taylor/Konrad items.

[a]Item was reverse coded.

dices, the regression for both the Antiques and Decline dimensions showed negative interactions between the high versus low groups and PSA (Antiques, $t = -8.74$, $p < .0001$; Decline, $t = -4.20$, $p < .0001$) that indicate the tendency for automotive style preferences to peak at a lower PSA for those high than for those low in the relevant liking-for-the-past dimension.

However, as also was the case for the three indices, the positions of these peaks differed between the two liking-for-the-past dimensions. Panel (a) of Figure 2 presents plots of predicted liking for those respondents high and those low on the Antiques dimension. Those high in liking of antiques show an inverted-U-shaped curve peaking around a product-specific age of −10. The inverted-U-shaped curve for those low in liking of antiques peaks at a product-specific age of 46. Panel (b) of Figure 2 presents plots of predicted liking for those respondents high and low in the Decline dimension. Preferences for those with high belief in decline peak at a product-specific age of 16. For those with low belief

Table 4. Results of Less Aggregated Regression Using the Antiques and Decline Dimensions of Liking for the Past.

	Regression Coefficients	
Independent Variables	Antiques Dimension	Decline Dimension
Intercept	0.100234[b]	0.097283[b]
Product-specific age (PSA)	−0.016730	0.191317[a]
PSA squared	−0.200025[a]	−0.174216[a]
Liking for the past (LP)	0.006201	0.026096
LP × PSA	−0.249939[a]	−0.140352[a]
LP × PSA-squared	−0.060993	−0.050606
R squared	0.291[a]	0.204[a]

[a] $p \leq .0001$.
[b] $p \leq .05$.

in decline, preferences peak at a product-specific age of 68. This latter group of respondents shows essentially no evidence for nostalgic preferences, and therefore provides a further indication of variability in the occurrence of nostalgic preferences in the automotive product category.

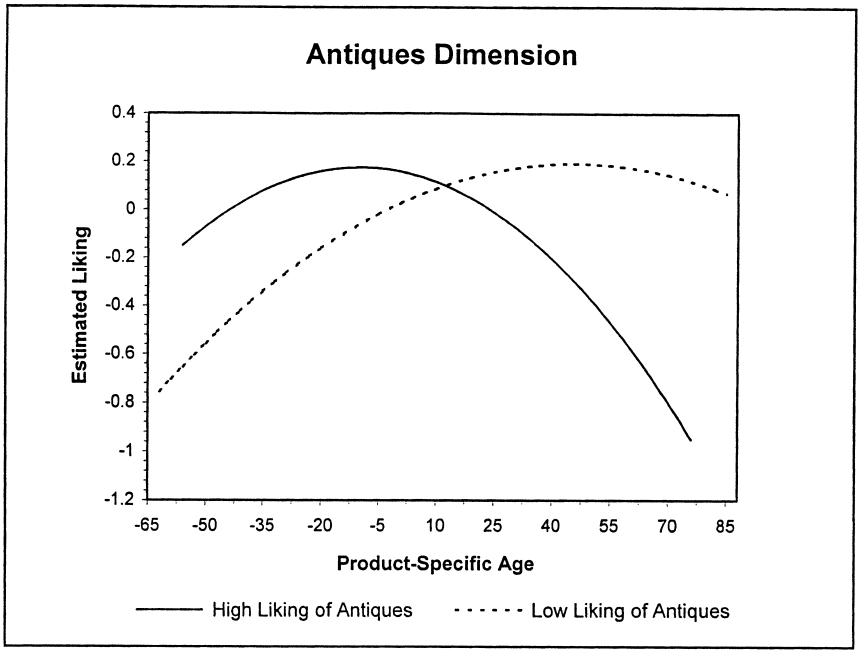
These results also bear on the research question (RQ), in that the Holbrook-index-based Decline dimension appears to be more able to predict nostalgic phenomena than the McKechnie-Taylor-Konrad-based Antiques dimension. Both dimensions produce a peak shift in the direction predicted by H3; but only the Decline dimension produces a segment of respondents (males high in nostalgia proneness) who show the evidence of nostalgic preferences indicated by the tendency to favor the styles popular in one's youth.

DISCUSSION

Existence of Nostalgia-Based Effects in the Illustrative Case of Automobiles

As reviewed earlier, previous research on entertainment-related or primarily aesthetic products has shown two nostalgia-based effects in consumer preferences. The first—an age-related preference peak—is a preference for the styles prevalently experienced during one's youth and, typically, no longer commonly available nor widely circulated. The second—a moderation of this peak by individual differences in nostalgic tendencies—causes the peak to shift toward an earlier age for those higher in nostalgia proneness. The present study indicates that both of these effects do exist for stylistic preferences in automobiles, an illus-

(a)



(b)

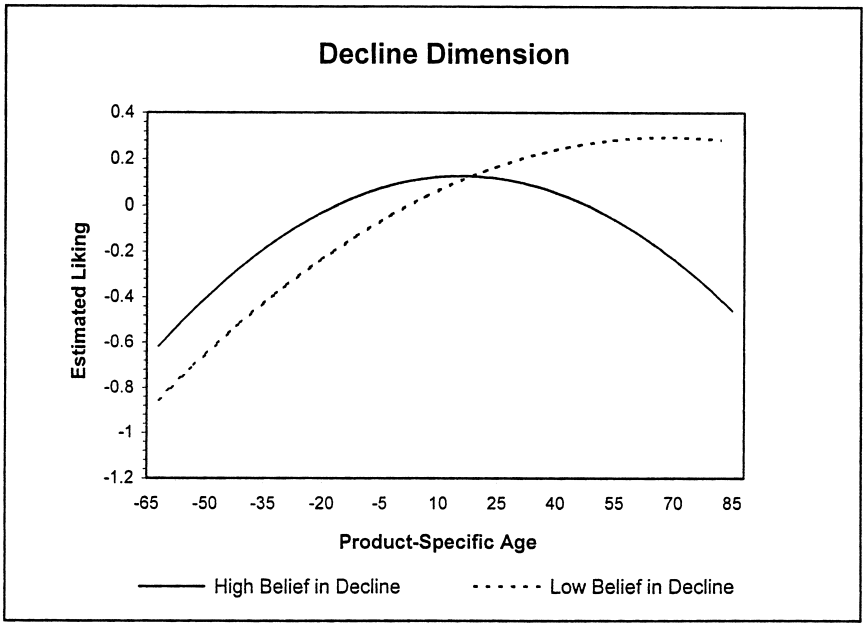


Figure 2. Estimated liking as a function of product-specific age for men high and low on the Antiques and Decline dimensions.

trative case of a product category that is not entertainment-related or primarily aesthetic. However, there are qualifications.

These qualifications are related to individual differences between consumers. First, the age-related peak in preferences for automobile styles was distinctly observable in this study, but only among the male respondents and not among women. This contrast between male and female respondents appears to be more marked for automobile preferences than for other products heretofore studied. Previous preference-peak studies that found gender differences (reviewed earlier) also showed at least a weak age-related preference peak among women. Here, with automobiles, there is no evidence at all for any such peak among the female respondents.

The second qualification relates to the moderating role of nostalgia proneness. Although the inverted-U-shaped preference curve peaked at an earlier product-specific age for men with greater (rather than lesser) nostalgic tendencies as indicated by various measures, the positions of the peaks did not always occur in the range of the men's youth. Further, dividing the male sample by the Antiques dimension of the 52 nostalgia-proneness items produced a low-nostalgia curve that peaked in middle age (product-specific age of 46) and a high-nostalgia curve that peaked before the respondents were born (product-specific age of -10). By contrast and most important among the present results, dividing the male sample by the Decline dimension did produce a high-nostalgia curve with the expected peak in the respondents' youth (product-specific age of 16), while also producing an upward-ascending low-nostalgia curve with virtually no peak at all (product-specific age of 68).

Relation to the Model of Nostalgic Preferences

This pattern of results fits fairly well with the integrative model of nostalgic preferences (Figure 1). In general, the finding of nostalgic preferences in a product category so different from those that had previously been studied supports the idea that such effects can occur for any product that a consumer associates with strong affective experience. More specifically, these results support the role of both environmental mechanisms (such as culturally learned gender roles) and biological mechanisms (such as the association of cars with sexual prowess) in the likelihood of having intense positive emotional product experiences during one's youth and thus the likelihood of showing a distinct age-related preference peak. The finding that women show not just a lesser effect, but no effect at all, may result from the lack of any innate emotional potency of an automobile's appearance that could contribute to an effect even when gender-related factors do not. Indeed, even in the men's data, the R^2s are modest compared to those found for nostalgic effects among the arts, entertainment, and primarily aesthetic products previously studied (reviewed earlier).

Also consistent with the model was the finding of a peak shift toward an earlier product-specific age for those male respondents who were higher in nostalgia proneness. Apparently, liking for the past can increase the likelihood that intense affective consumption in one's youth will cause the development of permanent preferences. The factor analysis of the 52 nostalgia-proneness items gives some insight on the aspect of liking for the past that serves to moderate this imprinting-like phenomenon. In particular, a belief that the passage of time is associated with general decline appears to affect whether or not consumers continue to base their preferences on early emotional experiences. Male consumers high on this decline-related dimension show peak preferences for the automobile styles of their youth; those low on this dimension, believing in technological progress and perhaps recognizing the importance of technology for the utilitarian aspects of cars, show a monotonic increase in preferences with product-specific age. Apparently, there is also another aspect of liking for the past—liking for antiques or, generally, for objects that are old—that is independent of belief in decline. Male consumers high on this dimension are likely to enjoy much older automotive styles (common before birth), and those low on this dimension are likely to prefer newer styles (common during mature adulthood); but this factor—by virtue of its impact on the timing of the relevant preference peaks—does not appear to be related to whether or not youthful emotional experiences (during adolescence or early adulthood) will have enduring effects.

This finding concerning the moderating effect of a belief in decline tends to validate the use of the Holbrook nostalgia-proneness index when the interest is in imprinting-like nostalgic effects. Moreover, the fact that six out of the 11 items that load most strongly on the Decline factor are also items in Holbrook's eight-item nostalgia-proneness index may account for the usefulness of this more compact index in recent nostalgia research (e.g., Holbrook, 1993; Holbrook & Schindler, 1994).

In addition to demonstrating the importance of the belief that the passage of time is associated with declining conditions, the moderating effect of the Decline dimension also clarifies the timing of the critical period for forming preferences toward automobile styles. Without considering nostalgia proneness, men's age-related preference peak for automobile styles appears to occur at around 26 years old. However, if the sample consists of some men (21%) who show a preference function with a peak at 68 years of age and some men (the other 79%) who show an inverted-U-shaped function peaking at an age of 16 years, the curve fitted to this combined sample would be an inverted U peaking at an age somewhere in between these two ages. This suggests that the true critical period for imprinting on the automobile styles of one's youth—among those who do actually do that—is closer to the 16-year-old peak shown by the segment of high-nostalgic men identified by the Decline dimension, who comprise roughly 80% of the present sample.

Given the support in the present data for the role of strong positive affect in early experience toward shaping the development of preferences, it would be interesting to understand more about the means by which strong affect may have this imprinting power. One possibility is that there is a form of primacy effect; the first strong positive feelings experienced during consumption may be capable of leading to lifelong preferences that tend to be resistant to competing emotional experiences later in life. This would be consistent with the ethological concept from which, by analogy, the use of the term *imprinting* is drawn. Alternatively, later experience of strong consumption affect could override the effects of early emotional experience, which would suggest the involvement of classical conditioning in early-experience effects (e.g., Bierley, McSweeney, & Vannieuwkerk, 1985). If this is the case, then the existence of apparent critical periods would be due mostly to the tendency for strong emotions to occur during certain periods of life.

Nostalgia and the Use of Age Segmentation

The results of this study suggest that nostalgic effects should be considered for a wide range of products that extend beyond those that are arts- and entertainment-related or primarily aesthetic. Rather than being restricted to items such as the CDs advertised on late-night television as "trips down memory lane," the imprinting-like effects of early experience on lifetime preferences should be considered even for such durable and utilitarian products as automobiles. In this direction, some automobile manufacturers have started to look toward the consumer's early experience to gain an understanding of stylistic preferences. For example, Volkswagen has successfully brought back its old standby, the Beetle, that unpretentious car beloved during the period when the baby-boom generation was in its adolescence and early adulthood (Gibney, 1999). One also notices the recent popularity of sports-utility vehicles with encased spare tires reminiscent of those featured in the high-end Ford and Lincoln cars of the 1950s (J. Plummer, personal communication, June 20, 1997). Recently, Daimler–Chrysler has introduced the retro-styled PT Cruiser, leading one automotive reviewer to write, "For the older buyer . . . the PT's resonance derives from its functionality, and the nostalgia engendered by its evocation of cars from the '30s and '40s. As we learned with the highly successful New Beetle, nostalgia can sell cars" (Haas, 2000).

In more general terms, the present data concerning nostalgic preferences in the illustrative case of automobiles build on previous nostalgia research to support a number of managerially relevant conclusions about the use of age as a basis for marketing segmentation. First, although age groups certainly do differ in their interest concerning many product categories (e.g., Schaninger & Danko, 1993), age segmentation

need not be restricted to the product-category level. Nostalgic effects can cause differences between age groups in preferences among individual brands or styles within a product category. For example, one age group of men may find the chiffon dress of the 1950s extremely attractive, whereas another may prefer the miniskirt of the 1960s and another the maxiskirt of the 1970s.

Second, it appears that many putative differences between age groups are really differences between cohorts (e.g., Rentz & Reynolds, 1991; Smith & Clurman, 1997; see Holbrook & Schindler, 1996, for a review of these effects). Failing to recognize this cohort dependency could lead the strategist to faulty predictions about consumer demand. For example, if the success of a line of polyester clothing targeted at the over-65 age group is due to age per se, then the aging of the baby-boom generation should produce a great increase in demand. But if, as is more likely, interest in polyester clothing is a cohort effect, then future demand for these styles should move in the downward direction.

However, third, in considering nostalgic effects in age segmentation for products without innate emotional potency, other segmentation variables—such as gender and nostalgia proneness (best measured by a belief that the passage of time is associated with decline)—should also be used. For example, female automobile consumers and less nostalgic men appear not to prefer the automotive styles of their youth. For such segments, a more age- or progress-related appeal, such as "It's not your father's Oldsmobile," might well be more appropriate.

Fourth and finally—although this research suggests that nostalgic effects can be found in a wide variety of products, of which the illustrative case of automobiles is just one example—it also gives some guidance in predicting when and for whom these effects are likely to occur. The model of nostalgic preferences suggests looking to products where one or more consumer segments have experienced strong positive affect in consumption as likely candidates for nostalgic effects in stylistic preferences. For example, although children experience a variety of toys and games, there may be a particular excitement in the freedom made possible by the child's first two-wheeled bicycle. This strong affect may lead to an imprinting of the child's tastes on the stylistic elements as well as the brands associated with his or her first two-wheeler. Such an analysis would support the value of venerable bicycle brand names such as Schwinn, which has recently offered a one-speed model with a wide seat and other elements characteristic of an earlier period in bicycle styling (Larson, 1995). Other strong emotional effects would be expected, as in the illustrative case of automobiles, to differ by gender. For example, men might respond more favorably to brand endorsements by baseball players from an era coinciding with their teenage years. By contrast, as exploited by (among others) Martha Stewart, women might well want to decorate their house with furniture mimicking the style found in the

homes of their youth. The possible comparable effects that remain to be tested seem virtually limitless.

Limitations and Directions for Future Research

Although the illustrative automobile-preference results reported here build on an increasing base of prior nostalgia-related studies, the current findings should be interpreted with appropriate caution. For example, though the present sample was recruited from beyond the university environment, the majority of the respondents were middle-class Americans, and the results may not necessarily be generalizable to other groups in the United States (such as welfare clients or recent immigrants) or to other cultures (such as Asian or European countries). Further, it is unclear to what degree the age-related preference function is sensitive to the particular conditions of a study, such as the set of automobile photographs used. This, in addition to the moderate R^2's characterizing the present results, suggests that such findings as the exact position of a preference peak at a particular product-specific age should be regarded as approximations rather than as precise estimates.

Despite these limitations, the finding of an age-related peak in the illustrative automotive product category—one that occurs during adolescence for nostalgically inclined men—adds support to the idea that nostalgia may be involved in a wide array of consumer preferences that extend well beyond the arts- and entertainment-related or primarily aesthetic products heretofore investigated. The potential importance of nostalgic effects in guiding the use of age- or cohort-based segmentation suggests the value of further exploring the generality of these effects by studying other product categories such as furniture, housing, and consumer packaged goods like cereal, soup, candy, or chewing gum. The substantial moderating role of nostalgia proneness continues to highlight the importance of this psychographic characteristic in determining the product-specific age at which peak preferences develop, and the finding of the importance of belief in decline suggests a direction for improving the measurement of nostalgia proneness. In the present study, a consideration of gender- and nostalgia-based individual differences has expanded the understanding of both the generality and the boundaries of the age-peak phenomenon, which appears to occur in the case of automobiles with particular force where the strength-of-emotions story applies—that is, for men high in nostalgia proneness of the type associated with a belief in decline. This pattern of findings suggests the value of future work where more detailed attention is given to the experiences of individual consumers during the period of their lives most critical to the formation of their lifelong tastes.

Appendix A. List of Automobiles Used.

Year	Automobile	Year	Automobile
1915	Dodge Model 30-35	1956	Chrysler 300B
1916	Scripps-Booth Model C	1957	Ford Fairlane 500 Convertible
1917	Buick Series D	1958	Cadillac Convertible
1918	Reo The Fifth	1959	DeSoto Firedome Sportsman
1919	Lanchester 40 HP	1960	Chrysler 300F
1920	Lorraine 15 CV	1961	Lincoln Continental
1921	BSA 10-HP	1962	Studebaker Lark Daytona
1922	Dodge Four	1963	Buick Riviera
1923	Auburn Beauty Six	1964	Chevrolet Chevelle Malibu
1924	Stanley Series 740	1965	Ford Mustang Convertible
1925	Rolls Royce Silver Ghost 40/50 HP	1966	Chevrolet Corvair Corsa
1926	Rickenbacker Super Sport	1967	Pontiac Grand Prix
1927	Studebaker President	1968	Pontiac GTO
1928	Auburn Speedster	1969	Mercury Marauder X-100
1929	Duesenberg Model J Murphy Sedan	1970	Oldsmobile Cutlass Rallye 350
1930	Chrysler Series 77	1971	Buick LeSabre Custom Convertible
1931	Pontiac Series 401	1972	Dodge Dart Demon
1932	Ford V8 Deluxe	1973	Ford Gran Torino
1933	Packard Twelve	1974	Volkswagen Golf
1934	Ford V8 Phaeton	1975	AMC Pacer
1935	Pierce-Arrow Model 845	1976	Pontiac Grand Prix LJ Golden
1936	Terraplane		Anniversary
1937	Chevrolet Mater Six	1977	Pontiac Firebird Trans Am Special
1938	Lincoln Zephyr V-12		Edition
1939	Plymouth Convertible Sedan	1978	Honda Accord
1940	Lasalle Series 52	1979	Cadillac Eldorado
1941	Chevrolet Special Deluxe	1980	BMW M535i
1942	Chevrolet Fleetline Aerosedan	1981	Lincoln Town Car
1943	Alfa Romeo 6C-2500 Sedan	1982	Lincoln Continental
1944	Chevrolet Fleetline	1983	Chevrolet Camaro Berlinetta
1945	Jaguar MK IV 3.5 Litre	1984	Ford Mustang SVO
1946	Chrysler Windsor	1985	BMW M5
1947	Studebaker Land Cruiser	1986	Ford Taurus
1948	Tucker Torpedo 48	1987	Cadillac Allante
1949	Cadillac Coupe De Ville	1988	Dodge Shadow
1950	Ford Country Squire	1989	Buick Reatta
1951	Chrysler Imperial	1990	Plymouth Acclaim
1952	Hudson Hornet	1991	Plymouth Laser
1953	Buick Special	1992	Jaguar XJ-S Convertible
1954	Ford Skyliner	1993	Mercedes 500SL
1955	Chevrolet BelAir Sport Coupe	1994	Chrysler Concorde

Appendix B. Items Included in the Three Indices of Nostalgia Proneness.

Nostalgia Index (Holbrook, 1993, 1994)

1. They don't make 'em like they used to
2. Newer is almost always better[a]
3. In the future, people will have even better lives[a]
4. Things used to be better in the good old days
5. I believe in the constant march of progress[a]

Appendix continued on following page

Appendix B. *(Continued)*

6. Yesterday, all my troubles seemed so far away
7. Products are getting shoddier and shoddier
8. Compared to our parents, we've got it good[a]
9. Technological change will insure a brighter future[a]
10. When I was younger, I was happier than I am today
11. Today's new movie stars could learn from the old pros
12. I must admit it's getting better, better all the time[a]
13. The truly great sports heroes are long dead and gone
14. History involves a steady improvement in human welfare[a]
15. Today's standard of living is the highest ever attained[a]
16. Sometimes, I almost wish that I could return to the womb
17. We are experiencing a decline in the quality of life
18. Steady growth in GNP has brought increased human happiness[a]
19. Compared to the classics, today's music is mostly trash
20. Modern business constantly builds a better tomorrow[a]

Antiquarianism Scale (McKechnie, 1974, 1977)

1. I enjoy browsing in bookstores
2. I enjoy browsing in antique shops
3. I like places that have the feeling of being old
4. I like homes with stone floors
5. I would rather remodel an old house than build a new one
6. It would be fun to own some old-fashioned costumes
7. I like modern furniture better than the more traditional styles[a]
8. Old sections of the city are more interesting than the new areas
9. I would like to live in a modern, planned community[a]
10. I would enjoy working in a flower garden
11. I am quite sensitive to the "character" of a building
12. I would enjoy living in a historic house
13. I have no interest in ballet[a]
14. I like to read about the history of places
15. I would enjoy going to the opera
16. Modern buildings are seldom as attractive as older ones
17. I would enjoy watching movies made 15 or 20 years ago
18. I enjoy collecting things that most people would consider junk
19. I am fond of oriental rugs
20. Old buildings are usually depressing[a]

Experience Scale (Taylor & Konrad, 1980)

1. I don't understand why people keep old things from the past[a]
2. Pioneer village reconstructions interest me more than books on pioneer life
3. The past is best preserved in books[a]
4. I go out of my way to pass through older parts of the city
5. I don't like the feeling of being surrounded by things that are old[a]
6. When I walk down the street, old things catch my eye
7. I never consider buying things that are old[a]
8. I would like to see how people in this area lived during prehistoric times
9. Old parts of the city are rundown and dirty[a]
10. I would be happy living in an old house full of antique furniture and mementos of the past
11. Most antiques are simply old junk[a]
12. I would prefer to visit an historical site than merely read about it

[a]Item was reversed when forming the multi-item index.

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The authors thank Marc Waldman and James Poole for their assistance with data collection.

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