How Strong is the Pull of the Past?

Measuring Personal Nostalgia Evoked by Advertising

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Marketers frequently evoke personal nostalgia in their advertising. To date, scales have been developed to measure the propensity to get nostalgic but not the actual dimensions of personal nostalgia. Results from four studies show that advertising-evoked personal nostalgia comprises four correlated but distinct dimensions: past imagery, positive emotions, negative emotions, and physiological reactions. This multidimensional scale showed a high level of validity and reliability. Moreover, due to careful choice of sampling frames, the study demonstrates a high level of external generalizability. Evaluating nostalgia-based advertising using the study's multidimensional scale may provide marketers with strategic insights for developing and fine-tuning advertising aimed at inducing nostalgia among consumers.

INTRODUCTION

During times of crises—whether financial or political—many marketers' main communication response has been to reassure consumers by making them feel safe and secure. More often than not, the technique they chose to create such comfort was through nostalgic advertising (Boyle, 2009; Elliott, 2009b). As a result, many advertising executives believe that, when it comes to boosting brand sales in tough times, nostalgia is the new "new" (Foley, 2009).

Over time, marketers have developed different types of techniques to evoke nostalgia, varying from commercials that directly ask consumers to remember their past (i.e., Disney's "Remember the Magic" campaign) to vignettes lifting brand moments from different eras (i.e., Pepsi's "Generation" campaign featuring Britney Spears singing music from different decades) to reviving old commercial jingles (i.e., Bumble Bee reviving its 1970s "Yum, Yum, Bumble Bee, Bumble Bee Tuna" jingle in 2009). More generally, the use of nostalgic advertising is seen as a means to reconnect the consumer to the brand (Sujan, Bettman, and Baumgartner, 1993), with a hope to connect favorably with the consumer (Foley, 2009).

There has been an increasing use of personal nostalgia in the advertising for consumer goods and services such as colas, cereals, beer, insurance, and banking (Sullivan, 2009). In fact, personal nostalgia has been found to influence preferences for certain products and services (Loveland, Smeesters, and Mandel, 2010). A content analysis of 1,000 U.S. television advertisements found that nostalgia was used via theme, copy, or music in 10 percent of the advertising (Unger, McConocha, and Faiere, 1991).

The use of nostalgia in advertising has not been just an American phenomenon. For example, in the United Kingdom, brands such as Richmond Sausages, Cadbury's, and Walkers Crisps have evoked nostalgia through their advertising (Foley, 2009). Marketers in Russia and India as well often use nostalgic themes in their advertising (Razdan, 2004; Holak et al., 2007).

Though nostalgia-driven techniques have evolved in their type and usage, surprisingly their measures of effectiveness have not. Although there are a number of measures for attitudes toward advertising and identifying individual differences in reaction to nostalgic messages (i.e., nostalgia proclivity), the authors believe that no measure captures the complexities of the nostalgia evoked

by advertisements. In fact, recognizing the practitioner need for a scale to measure the complex nature of advertising evoked nostalgia, one study recently called for more academic research in this area (Ford and Merchant, 2010).

The authors' research responds to this call and fills this gap in the literature. Based on the standard-scale development process (Churchill, 1979; DeVellis, 2003), the authors initiated four studies to develop a measure of personal nostalgia evoked by advertising. This tested and validated scale in theory would enable advertisers to consider multidimensional responses to various nostalgia-based promotional stimuli.

Further, the research demonstrated that nostalgia elicited by advertising was so engaging that it influenced A_{ad}, bonding with brand and brand choice. Thus, it sought to reaffirm the practice of employing nostalgic advertising as it nurtured brand–consumer relationships. The findings also indicated that, among less loyal consumers, nostalgia-based advertising is likely to work better than non–nostalgia-based communication. Thereby, advertisers may be advised to use nostalgic themes to engage even a less loyal consumer segment.

The balance of the current paper offers

- a review of the current literature;
- a discussion on the general methodology;
- four sequential studies (and a detailed discussion of related findings from each); and
- managerial implications along with a series of suggestions for future research.

CONCEPTUAL DEFINITION

Past research characterized two types of nostalgia: personal and vicarious. Personal nostalgia deals with the actual "lived" past, whereas vicarious nostalgia evokes a period outside of the individuals living

memory (Goulding, 2002). The focus of the current inquiry is centered on personal nostalgia.

A variety of definitions of personal nostalgia can be found in the literature, among them "A preference toward objects that were more common when one was younger" (Holbrook and Schindler, 1991, p. 332). Among the interpretations that portray nostalgia as a positive emotion is a "positively toned evocation of a lived past" (Davis, 1979, p. 18; see also Batcho, 1995; Pascal, Sprott, and Muehling, 2002; Wildschut, Sedikides, Arndt, and Routledge, 2006).

By contrast, several other researchers have described nostalgia as a negative emotion, including "A wistful mood that may be prompted by an object, a scene, a smell or a strain of music" (Belk, 1990, p. 670; see also Best and Nelson, 1985; Peters, 1985). Still other theorists have defined nostalgia as a basket of positive and negative emotions; one study described nostalgia as a positive emotion with tones of loss (Johnson-Laird and Oatley, 1989); another stated that nostalgia is a "wistful pleasure, a joy tingled with sadness" (Werman, 1977, p. 393).

Offering a more comprehensive definition of nostalgia, encompassing cognitive and affective elements, one study described nostalgia as a "positively valenced complex feeling, emotion or mood produced by reflection on things (objects, persons, ideas) associated with the past" (Holak and Havlena, 1998, p. 218). Other research shared this description and further proposed that autobiographical memories are affectively charged and that the affect associated with these memories can either be positive, negative, or both (Baumgartner, Sujan, and Bettman, 1992).

Other work distinguished nostalgia from reminiscence by defining reminiscence as the act of remembering the past and nostalgia as the bittersweet affect that accompanies certain memories (Werman,

1977). Building from that point, another piece of research concluded that "one can remember without being nostalgic but one cannot be nostalgic without remembering" (Batcho, 2007, p. 362).

The scale the authors have used in the current paper was developed based on the conceptualization that personal nostalgia is a multidimensional experience with cognitive and affective components. And, in this instance, they have defined "personal nostalgia" as "a reflection on the past, comprising a mix of memories and multiple emotions."

Personal nostalgia has been demonstrated to influence the consumer's preferences for a variety of products and services. Extant research shows that it influences the consumer's purchase of automobiles (Brown, Kozinets, and Sherry, 2003; Braun-LaTour, LaTour, and Zinkhan, 2007); foods and cosmetics (Loveland et al., 2010); perfumes (Lambert-Pandraud and Laurent, 2010); cigarettes and tea (Holak et al., 2007); songs (Batcho, 2007); arts and entertainment (Holbrook and Schindler, 2003); and movies (Holbrook, 1993).

EXISTING MEASURES

A review of the advertising literature revealed a variety of well-established measures that gauged how consumers reacted to and processed advertising. Current scales measure attitude toward advertising (e.g., Spears and Singh, 2004); advertising effectiveness (Moreau, Markman, and Lehmann, 2001); persuasiveness (Reichert, Heckler, and Jackson, 2001); creativity (Kim, Han, and Yoon, 2010); trust in advertising (Soh, Reid, and Whitehill King, 2009); advertising-evoked pleasure and arousal (Poels and Dewitte, 2008); empathy during message processing (Lijiang, 2010); advertising-evoked cognitive processing (McQuarrie and Mick, 1999); advertising-evoked emotions and feelings (Heath and Nairn, 2005; Aaker and

Williams, 1998); advertising-evoked mood (Ellen and Bone, 1998); and advertising influencing attitudes toward the brand (Okazaki, Katsukura, and Nishiyama, 2007; Brown, Homer, and Inman, 1998).

None of these measures, however, actually captured the complexity of the nostalgic reaction to advertising.

Existing Nostalgia Scales

A 2002 study offered a 10-item single-dimension scale to measure ad-evoked nostalgia (Pascal et al., 2002). This scale included items such as "the ad reminds me of the past"; "makes me nostalgic"; and "evokes fond memories." It should be noted that the scale did not tap into the various cognitive and emotional dimensions of the nostalgic experience.

The scale offered in the current study builds on the 2002 work and comprehensively deconstructs the personal nostalgia as evoked by marketing communications.

Some individuals show higher propensities for and proneness to nostalgia than others. One study defined the proclivity to "nostalgia" as "a facet of individual character—a psychographic variable, aspect of life-style, or general customer characteristic—that may vary among consumers" (Holbrook 1993, p. 246). That same research offered a nostalgia-proneness scale, which has become widely used, that utilizes 20-items (e.g., "products are getting shoddier and shoddier"; "the truly great sports heroes are long dead and gone") to measure nostalgia. Again, however, it does not measure the cognitive and emotional elements of the nostalgia evoked by advertisements.

Two years later, yet another piece of research tested the nostalgia inventory but also examined nostalgia proneness as a personality trait (Batcho, 1995). This 20-item survey asked respondents, "How much do you miss each of the following

from your past?" and provided a host of items including toys, television shows, friends, and the like.

There are several older scales (e.g., the antiquarianism scale [McKechnie, 1977] and the experience scale [Taylor and Konrad, 1980]) that also measured personal dispositions toward the past. These construct scales did measure the propensity to get nostalgic, but they did not measure the actual dimensions of the nostalgic experience as evoked by marketing communications.

The current research seeks to fill this gap in the literature.

FOUR STUDIES: GENERAL METHODOLOGY

In this research, the authors followed the scale-development guidelines (Churchill, 1979; DeVellis, 2003) that recommended that any scale development should commence with the conceptual definition. Once that definition has been determined, a list of potential scale items needs to be generated through a review of the literature along with qualitative research. With the list in place, the individual items need to be refined and shortlisted through factor analysis, and the underlying dimensions need to be confirmed. Reliability coefficients and alternate models are also examined at this stage. Finally, the validity of the scale needs to be established: criterion-related validity (i.e., can the construct—measured by the scale—help predict some outcomes), and nomological validity (i.e., does the construct—measured by the scale—link to its theoretical antecedents and consequences).

In this paper, the authors have employed these guidelines through four studies (Table 1):

• Study 1: The authors reviewed existing literature and conducted qualitative research. The findings of this study

indicated that personal nostalgia evoked by advertising is a four-dimensional construct. The authors also generated a list of 65 candidate items for their nostalgia scale.

• Study 2: Through two rounds of data collection, the authors first conducted exploratory analysis and then confirmatory factory analysis using the items generated in Study 1. The factor analyses resulted in a final list of 34 items loading on the four factors:

  – past imagery,
  – physiological reactions,
  – positive emotions, and
  – negative emotions.

The correlated four-factor model was found to be superior to various alternate models, and the subscales had acceptable reliability estimates.

• Study 3: The authors established criterion-related validity for the scale by demonstrating that advertising-evoked personal nostalgia (measured by the authors' scale) predicted higher levels of A_{ad}, A_b and behavioral intentions.

• Study 4: In the final study, the authors established nomological validity by linking ad-evoked personal nostalgia (measured by their scale) to its various antecedents and consequences.

STIMULUS DEVELOPMENT

Three print advertisements (Disney Parks, Public Broadcasting Services [PBS], and "Homemade" brand cookies) were developed to be used as stimuli in the subsequent studies. The authors deemed the product categories of the offerings desirable because they often are associated in the literature with an outcome linked to nostalgia (Baumgartner, 1992; Batcho, 1995).

TABLE 1

Summary of Studies Undertaken

Study	Nature of Study	Sample	Objectives	Findings/Results
1	Literature review		Identify items from current literature	36 items identified from extant literature
	Qualitative	13 focus groups: 58 consumers (non-student)	Explore dimensions and generate list of items	4-dimensional construct, 71 items generated
	Quantitative	5 expert judges	Content validity: how well each item represented its respective dimension and if there were any overlaps between the items	65 items retained out of a pool of 107
2	Pilot: Quantitative	143 (student)	Exploratory Factor Analysis: Scale refinement	4 factors, 34 items retained
	Main study: Quantitative	200 (non-student)	Confirmatory Factor Analysis: Reliability and Dimensionality	Acceptable reliabilities of sub-scales, and fit with 4-factor model
3	Quantitative	145 (non-student)	Criterion-related validity: We expected that higher levels of advertising-evoked nostalgia would predict higher levels of A_{ad}, A_b, and BI	Path co-efficients were statistically significant
4	Quantitative	262 (non-student)	Nomological validity: We proposed a series of relationships between advertising-evoked personal nostalgia and its antecedents and consequences	Nostalgia proneness, loneliness, and brand loyalty influenced nostalgia evoked by advertising. Ad-evoked nostalgia impacted perceptions of social support, enhanced brand bonds, and had a bearing on consumer choice. Nostalgic advertisements worked better among less loyal consumers as compared to non-nostalgic advertisements

For each product/service, the advertisement evoked nostalgia and used words such as "relive" or "remember the past" and cued nostalgia through a series of pictures and graphics. This technique aligns with past research on advertising-evoked nostalgia (e.g., Braun-LaTour, LaTour, Pickrell, and Loftus, 2004).

The advertisements were developed using an iterative process. In the first round, the stimulus was presented in three focus groups. Each focus group was composed of six or seven participants and lasted for approximately 30 to 40 minutes. There were 20 respondents in all, with an average age of 41 years.

After a couple of introductory questions, the subjects were shown the advertisements one at a time and were asked whether the advertising evoked nostalgia or did not. Feedback was recorded, and changes were made to the various stimuli.

The revised stimuli were presented to four more focus groups comprising 21 participants in all with an average age of 44 years.

The focus group findings indicated that the advertisements for each of the products evoked personal nostalgia (Appendices A–C).

STUDY 1: ITEM GENERATION
Key Finding
In this study, the authors found that there were four dimensions to the nostalgia evoked by advertisements. A list of 65 candidate items measuring the four dimensions also was generated.

Introduction
In line with the recommendations of comparable previous studies (Churchill, 1979; DeVellis, 2003), a detailed review of the nostalgia literature was undertaken, generating an initial pool of 36 items. The conceptualization was advanced at this point through a qualitative study composed of 13 separate focus groups.

The objectives of the qualitative study were

• to enhance the understanding of personal nostalgia evoked by

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advertisements, and to identify any dimensions not captured by the current literature, and

• to generate an exhaustive list of items for the nostalgia scale.

Procedure

Each focus group consisted of four to six consumers and lasted between 2 and 3 hours. In total, participants included 33 females and 25 males. To achieve a comprehensive perspective, respondents were selected from a variety of different ages, incomes, and educational backgrounds. The youngest respondent was 19; the oldest was 60. The discussions were moderated by two researchers and were audio-recorded.

To trigger nostalgia, the respondents were presented with three nostalgic print advertisements (Disney, PBS, and "Homemade" brand cookies). They then were asked to talk about the thoughts, memories, and feelings evoked by the advertisements. The same process was followed for each advertisement, one at a time, and the order of the advertisements was rotated across the groups.

Two assessors completed in-depth analysis of the transcripts in two stages:

• Each assessor conducted an independent review of the transcripts, highlighting the transcripts based on common themes and then transferred

key statements to an analysis worksheet, and

• the assessors met to discuss and achieve consensus on the results at the summary level.

Findings

The results of the focus groups revealed that there were four dimensions to the personal nostalgia evoked by advertisements. There were 71 manifestations of nostalgia that were identified through the focus groups:

• past-imagery factor,
• positive emotions,
• negative emotions, and
• physiological reactions.

Past-Imagery Factor. The first set was composed of statements related to the images of the past that came to the consumers' mind—what the authors termed "past imagery factor."

There were 18 manifestations for this factor. Among these, there also were some manifestations that past nostalgia research had referenced (e.g., "I relived the event from my past" [Baumgartner, 1992]; "I was transported to the past" [Baumgartner et al., 1992]; "I could see many images" [Braun-LaTour et al., 2007]).

The authors also found several other manifestations that were new to the literature. Examples included "I remembered a specific event"; "It was like a flashback"; "There was a montage of images"; "It was a dreamlike experience"; "Images were like flashing pictures"; "The images were impressionistic."

Positive Emotions. The second dimension was composed of a variety of positive emotions that the advertisements evoked.

There were 18 manifestations for this dimension. In this grouping, the authors also found a set of emotions that previous

nostalgia research had deliberated ("Peaceful and warm" [Holak and Havlena, 1998]) along with some additional emotions that had not been discussed such as "relaxed"; "calm"; "pleasant"; "connected"; "spiritual"; and "secure."

Negative Emotions. The third factor dealt with negative emotions. Once again, there were some items mentioned that past research had discovered ("sadness and regret" [Baumgartner et al., 1992; Batcho, 2007]). There also were 18 items that were novel to the nostalgia literature, among them were such considerations as "anxiety"; "tensed"; "guilty"; "depressed"; and "grief."

Physiological Reactions. In addition to articulating various emotions in response to the series of advertisements, some respondents were moved so intensely by the nostalgic experience that they produced a number of physiological reactions.

Unlike any past research on nostalgia, the authors of the current study identified a fourth factor to the personal nostalgia experience that was grounded in such physiological reactions. There were 17 such manifestations.

Examples included "My breathing became steady/slow"; "I could taste/smell/hear things from my past"; "I could feel shivers/trembling"; "I had goose bumps"; "I was sweating."

Content Validity

Five marketing faculty members served as expert judges and rated how well each item represented its respective dimension and whether there were any overlaps between the items. All judges had earned doctoral degrees and regularly conducted behaviorally oriented research.

A total of 107 items were generated through the combined process of literature review and the focus groups (literature review, 36 items; focus groups, 71 items).

Only those items that were classified as representative or highly representative were retained (Zaichkowsky, 1985). In all, 65 items were retained of the full set of 107.

STUDY 2: ITEM REFINEMENT, RELIABILITY, AND DIMENSIONALITY
Key Findings
Factor analyses resulted in a final list of 34 items loading on the four factors (past imagery, physiological reactions, positive emotions, and negative emotions). This correlated four-factor model was found to be superior to various alternate models, and the subscales had acceptable reliability estimates.

Pilot Study
Data were collected from 143 undergraduate students in a large American university. The respondents were made up of 36 percent male, with an average age of 26 years.

Each respondent was exposed to one of the three nostalgic print advertisements (Disney, PBS, and "Homemade" brand cookies) and responded to a list of 65 possible reactions to those advertisements. Specific instructions were "Listed below are statements that describe the thoughts/feelings that come to your mind (or how you feel) right now after reading the advertisement."

For items related to past imagery, respondents were asked to indicate how likely they were to agree or disagree with each of the statements (scale of 1 to 5, 1 being "strongly disagree" and 5 being "strongly agree"). For all the other items, respondents were asked to indicate to what extent they felt each of the following (scale of 1 to 5, 1 being "very slightly or not at all" and 5 being "extremely").

Exploratory factor analysis was run using the 65 items, and the factors were rotated using varimax rotation. Statistical criteria for item retention were

- item-to-total correlations above 0.50;
- an average inter-item correlation above 0.30; and
- a factor loading above 0.50 (see Spector, 1992).

The factor analysis resulted in 34 items loading on four factors that the authors identified as past imagery (14 items); physiological reactions (9 items); positive emotions (5 items); and negative emotions (6 items).

The four factors were selected on the bases of scree plot and interpretability (explained 61 percent of the variance).

Main Study
The main study was conducted with data collected from 200 consumers using an online consumer panel.

At the time of the study, there was a unique opportunity to test the authors' scale with a 2009 Pepsi Super Bowl television commercial. Pepsi had launched a nostalgic "Refresh Anthem" commercial (http://tinyurl.com/4krbrat) that was based on the classic song "Forever Young". Aimed to evoke nostalgia among consumers (Elliott, 2009a), a song in the advertisement was sung by its original lyricist Bob Dylan and rapped by The Black Eyed Peas.

Nuances of older films were built into the new commercial, and the advertising presented a visual collage of good times, celebrating generations past and present. The commercial lasted for 60 seconds.

After seeing the advertising, the respondents completed our 34-item nostalgia scale. Half the sample was composed of men, and the mean age of the respondents was 49 years. On the bases of the previous findings, a confirmatory factor analysis was conducted with a correlated four-factor model.

The CFA model showed good fit (χ^2 (488) = 1323, CFI = 0.95, IFI = 0.95, TLI = 0.94, GFI = 0.85, RMSEA = 0.058).

All factor loadings were significant at $p < 0.001$ and were above 0.50. The Cronbach's alphas, average variance extracted, and composite reliability coefficients for each of the dimensions were consistent with recommended ranges (Fornell and Larcker, 1981; Clark and Watson, 1995; Table 2).

Dimensionality
Several alternative measurement models were examined (Anderson and Gerbing, 1988):

- Model 1 is the base model and correlated four factors;
- Model 2 is a second-order factor model;
- Model 3 is a one-factor model; and
- Model 4 has the four factors uncorrelated.

In Model 5, the correlation between positive emotions and negative emotions is set to 1. In Model 6, the correlation between positive emotions and physiological reactions is set to 1; whereas in Model 7, the correlation between negative emotions and physiological reactions is set to 1. Last, in Model 8, the correlations between positive emotions, negative emotions, and physiological reactions are all set to 1.

As per the fit indices and difference of chi-square test, all the alternate models were significantly worse fit as compared to Model 1 (the four-factor model in the current study; Table 3).

This implies that the four-dimensional construct structure proposed by the authors is the most robust.

STUDY 3: CRITERION-RELATED VALIDITY
Key Findings
In this study, the authors established criterion-related validity—more specifically, whether the scale helped predict some outcomes. In these instances, the current study revealed that advertising-evoked personal nostalgia—measured by

TABLE 2

Personal Nostalgia Scale Items and Factor Loadings

Item	CFA***
Past imagery	**0.93^a, 0.51^b, 0.93^c**
I relived the event from my past	0.86
I was transported to the past	0.85
It was like a flashback	0.85
The images were distinct	0.81
It was a dreamlike experience	0.80
I remembered a specific event	0.77
The memories were in bits and pieces	0.74
The images were impressionistic	0.71
One image led to another	0.67
I could see many images	0.62
The image/s were vivid	0.58
The image/s were sharp	0.55
The image/s were like flashing pictures	0.54
There was a montage of images	0.54
Physiological reactions	**0.93^a, 0.72^b, 0.95^c**
My heart was pounding	0.95
I could feel shivers/trembling	0.94
I had goosebumps	0.92
My breathing became steady/slow	0.90
I was sweating	0.86
My stomach was churning	0.85
There were tears in my eyes	0.85
I could taste/smell/hear things from my past	0.66
I laughed/smiled	0.63
Positive emotions	**0.92^a, 0.72^b, 0.92^c**
Warm	0.90
Peaceful	0.87
Pleasant	0.84
Relaxed	0.83
Calm	0.79
Negative emotions	**0.93^a, 0.75^b, 0.94^c**
Sadness	0.91
Anxiety	0.88
Tensed	0.88
Guilty	0.86
Depressed	0.83
Regret	0.82

[a] Cronbach's α estimates; [b] Average variance extracted; [c] Composite reliability; *** all loadings significant at $p < 0.001$

In this study, the authors established criterion-related validity—more specifically, whether the scale helped predict some outcomes.

the four-factor scale—predicted higher levels of A_{ad}, which, in turn, had a positive effect on A_b and resulted in higher levels of behavioral intentions.

Keeping in mind past research on nostalgic advertising (Pascal et al., 2002) and research on advertising-generated affect and its impact on advertising and brand attitude (Spears and Singh, 2004), the authors expected that higher levels of advertising-evoked personal nostalgia would predict higher levels of A_{ad}, which would positively impact A_b and would result in higher levels of behavioral intentions.

Methodology

In this study, the authors used the three nostalgic print advertisements—for Disney Parks, PBS, and "Homemade" brand cookie—that had been developed earlier in the project.

Data were collected from 145 consumers using an online consumer panel. The sample contained a balanced age and gender mix. Each respondent was exposed to one advertisement and then completed our nostalgia scale. In addition. the respondents answered questions on behavioral intentions (BI; Spears and Singh, 2004), A_{ad}—attitude toward the advertising (MacKenzie and Lutz, 1989), and A_b—attitude toward the brand (Cox and Locander, 1987; Park and Young, 1986).

TABLE 3

Dimensionality

	Description	χ^2	df	CFI	NFI	IFI	TLI	RMSEA	$\Delta \chi^2/df$
Model 1	Base model—4 factors correlated	1323	488	0.95	0.90	0.95	0.94	0.058	
Model 2	Second order factor	1387	490	0.93	0.88	0.94	0.92	0.064	64/2***
Model 3	1 factor model	3426	494	0.76	0.73	0.76	0.73	0.127	2103/6***
Model 4	4 factors—uncorrelated	2141	494	0.86	0.83	0.86	0.85	0.095	818/6***
Model 5	Correlation between positive and negative emotions set to 1	1348	489	0.92	0.89	0.92	0.91	0.069	25/1***
Model 6	Correlation between positive emotions and physiological reactions set to 1	1357	489	0.92	0.89	0.92	0.91	0.069	34/1***
Model 7	Correlation between negative emotions and physiological reactions set to 1	1347	489	0.92	0.89	0.92	0.91	0.069	24/1***
Model 8	Correlation between positive, negative emotions and physiological reactions set to 1	1358	491	0.92	0.89	0.91	0.91	0.068	35/3***

*** *significantly worse fit than base model (p < 0.001)*

Findings of Study 3

The results of the structural equations modeling show that the model had acceptable fit (χ^2 (df) = 83(9); CFI = 0.91, GFI = 0.91, IFI = 0.90, NFI = 0.90). We found the coefficients of the path from three dimensions of advertising evoked personal nostalgia to the attitude toward the advertising to be positive and statistically significant ($\beta_{Past\ imagery \to Aad}$ = 0.65, $p < 0.001$; $\beta_{Physiological\ reaction \to Aad}$ = 0.45, $p < 0.001$; $\beta_{Positive\ emotions \to Aad}$ = 0.66, $p < 0.001$).

The authors found a negative effect, however, of the negative emotions of nostalgia on A_{ad} (β = –0.44, $p < 0.001$). This finding is in line with the recent work of previous studies that concluded that negative emotions evoked by advertising were likely to have a negative impact on the consumer's attitudes toward the advertisement (Hong and Lee, 2010; Lau-Gesk and Meyers-Levy, 2009).

Further, the current study found that the coefficients of the path A_{ad} to A_b (β = 0.81, $p < 0.001$) and from A_b to behavioral intentions (β = 0.76, $p < 0.001$) to be statistically significant.

In conclusion, the results of this study illustrated that higher levels of advertising-evoked personal nostalgia predicted higher levels of A_{ad}, which, in turn, led advertisements to higher levels of A_b and BI.

This demonstrates criterion validity for the authors' nostalgia scale.

STUDY 4: A NOMOLOGICAL NETWORK FOR ADVERTISING-EVOKED PERSONAL NOSTALGIA

Key Findings

In this study, the authors linked advertising-evoked personal nostalgia—measured by their four-factor scale—to its various antecedents and consequences. They found that nostalgia proneness, loneliness, and brand loyalty influenced nostalgia evoked by advertising. They also found that nostalgia affected perceptions of social support, enhanced brand bonds, and had a bearing on consumer choice. Further, they learned that nostalgic advertisements worked better among less loyal consumers as compared to non-nostalgic advertisements.

Methodology

For this study, the authors proposed a series of relationships between advertising-evoked personal nostalgia and its antecedents and consequences (Figure 1).
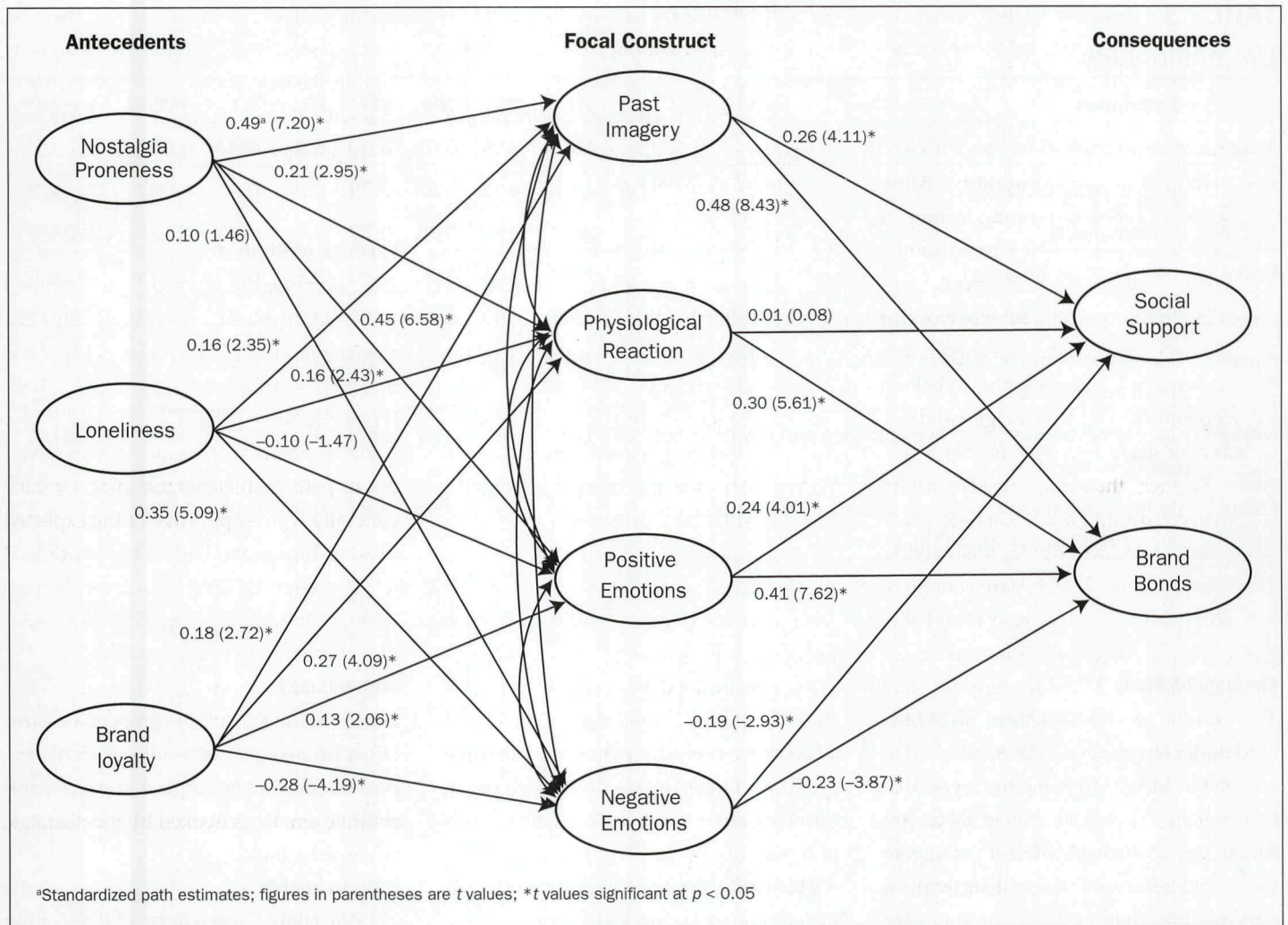
- **Antecedents**
  - **Nostalgia proneness**: Some individuals show higher propensities (or proneness) for nostalgia than others (Holbrook, 1993). One study indicated that a person highly prone to nostalgia would have a better capacity for emotionality (Batcho, 1998) and, therefore, would be very happy when experiencing happiness and very sad when experiencing sadness. The subject's capacity to feel emotions more intensely would increase the likelihood of the individual to experience nostalgia.

    The authors, therefore, argue that the consumer's nostalgia proneness is likely to positively influence the personal nostalgia evoked by advertising.

  - **Loneliness**: Loneliness is an emotional state in which a person experiences a

Figure 1 Advertising-Evoked Personal Nostalgia and Relationships with Other Constructs

powerful feeling of emptiness and isolation (Hawthorne, 2006). One recent study also found that higher levels of loneliness resulted in higher levels of the consumer's nostalgia (Wildschut et al., 2006).

In line with these arguments, the authors propose that the consumer's levels of loneliness positively impact the personal nostalgia evoked by advertising.

- **Brand loyalty**: A consumer's loyalty to a brand has been defined in the literature using both attitudinal and behavioral approaches.

The attitudinal approach argues that loyalty exists when there is a favorable belief toward the brand (Agustin and Singh, 2005).

Behavioral loyalty, conversely, sees loyalty as an expressed behavior (i.e., the consumer's propensity to buy with reference to the pattern of past purchases [Russell and Kamakura, 1994]).

Some researchers have argued that for low-risk, frequently purchased products, loyalty may be the joint outcome of habit and attitude (Zhang, Dixit, and Friedman, 2010).

The authors propose that the consumer's loyalty to a brand will have

a positive effect on the nostalgia evoked by the advertised brand. The authors, therefore, offer the following propositions about the antecedents of nostalgia:

P1: Higher levels of the consumer's nostalgia proneness will generate higher levels of advertising-evoked personal nostalgia.

P2: Higher levels of the consumer's loneliness will generate higher levels of advertising-evoked personal nostalgia.

P3: Higher levels of the consumer's loyalty toward the focal brand

will generate higher levels of advertising-evoked personal nostalgia.

- **Consequences**
  - **Perceived social support:** Being socially connected—and feeling a sense of belonging—is a basic human drive (Leary, Kelly, Cottrell, and Schreindorfer, 2009). Recent work of Loveland et al. (2010) has shown that consumers who have a goal to belong choose to consume nostalgic products as a means to address this goal.

    Further, their inquiry also found that consumption of nostalgic products successfully fulfills this need to belong. These findings are consistent with past work that also found that nostalgia enhanced the consumer's perception of social support, and reduced loneliness (Zhou, Sedikides, Wildschut, and Gao, 2008).

    The authors, therefore, argue that personal nostalgia evoked by advertising also would result in higher levels of perceived social support for the consumer.

  - **Brand bonds:** Brand bonds are an important facet of the relationship the consumer has with a brand (Aaker, Fournier, and Brasel, 2004). In fact, there may be nostalgic roots in the relationships consumers share with brands (Fournier, 1998). In the context of cigarette and tea advertising, for instance, one study found that even newer brands benefited by using nostalgic imagery, as the positivity associated with the past depicted by the nostalgic advertisements rubbed off on the focal brand and enhanced the consumer's emotional bonds to the brand (Holak et al., 2007). In light of these findings, the authors propose that personal nostalgia evoked

by advertising is likely to enhance the consumer's bonds with the focal brand.

The authors, therefore, offer the following propositions about the consequences of nostalgia:

P4: Higher levels of advertising-evoked personal nostalgia will result in higher levels of perceived social support for the consumer.

P5: Higher levels of advertising-evoked personal nostalgia will enhance the consumer's bonds with the focal brand.

Methodology

Data were collected from 166 consumers using an online consumer panel. The sample contained a balanced age and gender mix.

Respondents initially answered questions related to the antecedents. Specifically,

- loyalty for the focal brand (Pepsi) was determined by asking the respondents "Out of the last ten times you would have had a soda, how many times did you drink Pepsi Cola?"
- loneliness was measured using a 20-item loneliness scale (Russell, Peplau, and Cutrona, 1980); and
- nostalgia proneness was measured using a 20-item scale developed by Batcho (1995).

The respondents then were exposed to the nostalgic Pepsi "Refresh Anthem" 60-second television commercial. After the panelists had reviewed the television advertisement, they completed the 34-item nostalgia scale.

In turn, the respondents then answered questions related to the two consequences: social support and bonds with the focal

brand (Pepsi). Perceived social support was assessed using one measure (Sarason, Levine, Basham, and Sarason, 1983); bonding with the focal brand was measured using another (Aaker et al., 2004; Fournier, 1998).

Findings of Study 4

The nomological network was tested using structural equations modeling. The model demonstrated a reasonably good fit ($\chi^2(df) = 34(9)$; CFI = 0.95, GFI = 0.96, IFI = 0.96, NFI = 0.94).

The estimated path coefficients (t values of path coefficients tested at $p < 0.05$) generally were supportive of the expected relationships embodied in propositions 1 to 5, between the four factors of the personal nostalgia scale and the five additional constructs (See Figure).

To elaborate on these results, the authors found that the consumer's nostalgia proneness positively influenced the past imagery, physiological reactions, and positive emotions evoked by the nostalgic advertising (See Figure).

The current study also found that the more a consumer feels lonely, the more he or she is likely to experience past imagery, physiological reactions, and negative emotions after watching a nostalgic advertisement.

The authors found that higher levels of loyalty with the focal brand led to significantly higher levels of past imagery, positive emotions and physiological reactions, and lower levels of negative emotions evoked by the nostalgic advertising.

On the consequences side of the research, the authors found that past imagery and positive emotions evoked by the nostalgic advertising led to higher levels of perceived social support for the consumer, whereas higher levels of negative emotions associated with personal nostalgia led to lower levels of perceived social support.

Moreover, the inquiry showed that past imagery, physiological reactions, and positive emotions evoked by the nostalgic advertising may enhance bonding with the focal brand, whereas higher levels of negative emotions associated with personal nostalgia led to lower levels of bonding with the focal brand.

Taking these results, along with the Study 3 findings, the authors concluded that even though overall nostalgia enhances the consumer's relationship with the brand, the negative emotions of nostalgia could enervate these relationships.

These findings are new to the literature and build on extant research on advertising-evoked affect (Brown et al., 1998; Lee and Han, 2002).

This series of findings establishes nomological validity for the authors' scale that satisfactorily relates with its theoretical antecedents and consequences. The authors also compared their new scale to an alternate measure of personal nostalgia (Pascal et al., 2002) and found the new index to be superior (Appendix D).

Predicting Consumer Choice

Another test of the author's new scale was its ability to predict consumer choice of the advertised brand. At the end of the survey, the respondents were told that if the research agency were to consider offering them $5 as a gift, which option would they choose: a gift coupon for Pepsi Cola for $5 or a gift card for $5 (which could be used to buy any product).

A multiple discriminant analysis was run with choice as the dependent variable (1 = Choosing gift coupon for Pepsi, 0 = Choosing non-Pepsi gift card). The four dimensions of advertising-evoked personal nostalgia were included as the independent variables in the discriminant model.

The analysis revealed one discriminant function, and all the four variables

had acceptable levels of loading on the discriminant function (loading greater than 0.40). The Wilks λ for the discriminant model was statistically significant ($\lambda = 0.93$, χ^2 (df) = 12(4), $p < 0.05$). Further analysis also showed that the discriminant function predicted brand choice significantly better than chance (Press's $Q = 31.41$, $p < 0.01$).

Overall, the results of this study support the premise that the personal nostalgia (measured by its four factors—past imagery, positive emotions, negative emotions, and physiological reactions—) evoked by advertising influences the choice of brand made by the consumer.

Effects on Types of Users (Less versus More Loyal)

Past advertising research shows that advertisements had elicited different reactions among different types of consumers. The key question the authors examined in the current study: Do nostalgic advertisements (as compared to non-nostalgic advertisements) work better among more loyal consumers—as compared to less loyal—consumers?

To investigate this issue, the authors collected additional data from 96 consumers using the online consumer panel. The respondents first answered a question related to the loyalty for the focal brand (Pepsi) ("Out of the last ten times you would have had a soda, how many times did you drink Pepsi Cola?"). The respondents then were exposed to the non-nostalgic "Justin Timberlake" Pepsi advertisement (http://bit.ly/h4t47m). Consequently, they expressed their purchase intention—specifically, how likely are they to purchase the product shown in the advertisement—and completed the study's 34-item nostalgia scale.

This sample was integrated with the previous sample of 166 respondents (the group that had been exposed to the

nostalgic Pepsi "Refresh Anthem" advertising), producing a total sample of 262 consumers.

The authors found that the nostalgic advertising—when compared to the non-nostalgic Pepsi advertising—scored significantly ($p < 0.05$) higher across the four dimensions of their nostalgia scale.

The mean number of times the respondents consumed Pepsi (of the last 10 soda consumption occasions) was 2.87 (median = 2). For analysis purposes, those who had consumed Pepsi two or fewer times were termed "less loyal" consumers (145 respondents), and the rest were termed as "more loyal" consumers (117 respondents).

Comparisons between the two advertisements (nostalgic and non-nostalgic) for more- and less-loyal consumers were tested separately using one-way analysis of variance (ANOVA). The results of the one-way ANOVA among more loyal consumers showed that there was no significant difference between the purchase intentions across the two advertisements ($M_{\text{Nostalgic ad}} = 5.42$, $M_{\text{Non-nostalgic ad}} = 5.05$, $F = 1.09$, n.s.). This implies that more loyal consumers are so engaged with the brand that they are predisposed to buy the product anyway, regardless of the type of advertising.

Conversely, the results of the one-way ANOVA among less loyal consumers showed that there was a significant difference in the levels of purchase intention generated by the two advertisements. The nostalgic advertising generated higher purchase intentions as compared to the non-nostalgic advertising ($M_{\text{Nostalgic ad}} = 3.50$, $M_{\text{Non-nostalgic ad}} = 2.69$, $F = 5.45$, $p < 0.05$).

These findings are new to the literature and suggest that even less loyal consumers can be engaged using nostalgia-based advertising, resulting in positive outcomes for the focal brand.

DISCUSSION AND IMPLICATIONS

Advertising research has moved away from looking at whether an advertisement "is liked" toward examining how well an advertisement "engages" consumers.

One way to engage consumers is to make advertising content personally relevant to them by invoking situations (or events) that they have experienced in the past (i.e., through personal nostalgia).

The current research sought to develop a scale that could identify the degree to which an advertisement successfully aroused personal memories of the past and facilitated the positive transfer of not only emotion but relevance and meaning toward the advertised brand.

Toward that end, the authors executed four studies employing recommended qualitative and quantitative analyses, item generation, and item reduction, and successfully assessed various forms of reliability and validity across multiple data sets. The findings culminated with Study 4, which tested four dimensions of the study's focal construct preceded by theoretically grounded antecedents and outcome variables in the context of a nomological network. Study 4 also found the authors' four-dimensional formulation was superior to an alternative nostalgia measure (See Appendix D), and the discriminant analysis showed the new nostalgia scale did predict brand choice.

Overall, the evidence was strong that the authors' nostalgia scale made a significant contribution to the literature from the vantage points of both theory and application.

The authors also sought to make this paper more than a "scale-development piece" to be added to the extant literature and previous measures. Of overriding interest was the "bridge" built from complex multidimensional theory surrounding what the authors call "personal nostalgia" and how practitioners' marketing techniques evoke this construct.

Academic relevance is shown as this paper shifted the focus on nostalgia to a more complex, robust, multidimensional theoretically grounded formulation manifested in response to marketing communications. Physiological response based on memories evoked by the advertising was identified as an important new factor in measuring personal nostalgia.

The current study also found that personal nostalgia involved invoking both positive and negative emotions (rather than either/or) and that nostalgia resulted in higher levels of attitude toward the advertising and strengthened bonds with the focal brand.

Indeed, the authors believe that the effect of nostalgia is so potent that it plays a role even in enhancing the consumer's perceptions of social support. Though the nostalgic experience on the whole has positive ramifications, the current inquiry showed that the negative emotions of nostalgia had an adverse effect on A_{ad}, and the consumer's relationship with the brand.

This research also has several implications from the practitioner's perspective:

- It demonstrated that advertising-evoked personal nostalgia is multidimensional: past imagery, positive emotions, negative emotions, and physiological reactions. Advertising executives may find it useful to evaluate nostalgia-based advertising using the authors' multidimensional scale. A tested and validated scale would enable advertisers to engage in deep thinking about their target markets' multidimensional responses to various nostalgia-based promotional stimuli.

- This research demonstrated that nostalgia elicited by advertising was so engaging that it influences A_{ad}, bonding with brand, and brand choice. Thus, it reaffirmed the practice of employing

nostalgic advertising as it nurtures brand–consumer relationships.

- It indicated that, among less loyal consumers, nostalgia-based advertising was likely to work better than non–nostalgia-based communication. Thereby, advertisers may be advised to use nostalgic themes to engage an even less loyal consumer segment.

- The research suggested that effective nostalgia-inducing advertisement must
  - evoke images from the consumer's past,
  - conjure up positive emotions and physiological reactions, and
  - curtail the negative emotions associated with nostalgia.

This investigation explicates that, even though the ramifications of nostalgia are overall positive, the negative emotions have a negative effect on A_{ad} and bonds with the advertised brand.

These insights into the consumer's nostalgic response are novel to the literature and may be of strategic help to the advertising executive for copy development and testing. For example, using standard A_{ad} and likeability measures to assess a nostalgic advertising may only indicate the consumer's overall impressions of the advertising. Using the new nostalgia scale diagnostically, however, would reveal how effectively the advertisement evokes the various dimensions of nostalgia, prompting ability to fine-tune the copy accordingly.

FUTURE RESEARCH

Future researchers could consider studying the effects of the use of framing concepts (Levin, Schneider, and Gaeth, 1998) in presenting nostalgic advertising to consumers. For instance: Would positively framed messages be more effective

as compared to negatively framed ones, as they are less likely to evoke negative emotions? In both the basic and applied context, what would be the research opportunities to extend this new nostalgia scale to a cross-cultural context? What are the possibilities of studying the manifestations of nostalgia in other cultures and the potential for this new scale (and/or modified derivatives of such) to provide additional contexts for discovery? In this case, the need would be great to establish the proper cultural context to understand the various facets of the nostalgic experience in differing cultural settings. The current study provides a strong foundation that—taken in conjunction with careful qualitative analysis in each new cultural context in which the construct would be examined—should provide new opportunities for building the literature and application. **JAR**

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APPENDIX A

> **Relive the wonderful memories of the past!**
>
> Remember the time you went to Disneyland with your family. ... you shook hands with Mickey Mouse and met Donald Duck ... Now, relive the magic of the past by returning to Disneyland this season.

APPENDIX B

> **Relive the wonderful memories of the past!**
>
> Homemade Cookies® are so fresh and delicious that they will remind you of the cookies made at home by Mom.... Bite into a Homemade Cookie® and relive the past.
>
> *Homemade Cookies®*

APPENDIX C

> **Remember growing up with Kermit the frog!**
>
> Kermit the frog, Big Bird, Curious George ... are some of the icons that generations of Americans have grown up with. Your donation to PBS can help us continue to provide wholesome entertainment.
>
> PBS

APPENDIX D

Comparing our scale to the measure developed by Pascal et al. (2002)

The authors tested the nomological network (of Study 4) using the Pascal et al. (2002) 10-item measure of nostalgia instead of our nostalgia scale. The antecedents and consequences were kept the same. The model fit was worse off than the fit achieved using the four-factor nostalgia scale (χ^2 (df) = 65(9); CFI = 0.74, GFI = 0.86, IFI = 0.78, NFI = 0.75). A test of the path coefficients (t values tested at $p < 0.05$) showed that the path nostalgia proneness→nostalgia was statistically significant (0.61). Contrary to past research (e.g., Zhou et al., 2008), there was a negative relationship between loneliness and nostalgia (–0.20), implying that higher levels of loneliness would in fact lead to *lower* levels of nostalgia. The results also showed that the path brand loyalty→nostalgia was statistically non-significant. The paths from nostalgia to each of the two consequences—social support (0.36), and brand bonds (0.65)—were statistically significant. As the alternate measure was unable to decouple the various elements of the advertising-evoked nostalgic experience,

using this measure in a theoretical network would lead to erroneous interpretations. For example, if advertisers were to use the measure developed by Pascal and colleagues, they would conclude that the nostalgia evoked by the advertisement would lead to higher levels of bonding with the focal brand. However, using our four-factor scale shows that indeed the past imagery, physiological reactions, and positive emotions evoked by the nostalgic ad enhance brand bonds, but the negative emotions of nostalgia in fact *erode* brand bonds, implying that advertisers would find it useful to curtail these emotions evoked by the advertising copy. Also, when compared with the findings of the nomological model using our four-factor scale, the model using the measure developed by Pascal and colleagues reflected non-significant relationships when indeed there were relationships (e.g., brand loyalty→nostalgia).

Further, an examination of the squared multiple correlations (variance explained) of the final dependent variables in the

nomological model explicates that using our four-factor measure of advertising-evoked personal nostalgia explains more variance in the endogenous variables than the alternate nostalgia measure (Brand Bonds$_{\text{Four-factor scale}}$ = 74 percent versus Brand Bonds$_{\text{Alternate measure}}$ = 43 percent; Social Support$_{\text{Four-factor scale}}$ = 19 percent versus Social Support$_{\text{Alternate measure}}$ = 13 percent). Additionally, for the Pascal et al. scale as well, we analyzed how well the measure predicted consumer choice. A multiple discriminant analysis was run with brand choice as the dependent variable (1 = Choosing gift coupon for Pepsi, 0 = Choosing non-Pepsi gift card) and Pascal et al. measure of nostalgia as the independent variable in the discriminant model. Analysis using the Press's Q statistic showed that the discriminant function did not predict the brand choice significantly better than chance (Press's Q = 3.49, n.s.). This additionally establishes that the alternate measure, though useful, is inadequate in capturing the richness of the nostalgic experience, which is encapsulated better using our four-factor scale.