Received 5 January 2018
Revised 23 April 2018
1 October 2018
3 October 2018
Accepted 8 October 2018

Nostalgic advertising: managing ambivalence to make it work

Ekta Srivastava
Indian Institute of Management Lucknow, Lucknow, India
Satish S. Maheswarappa
Department of Marketing, Indian Institute of Management Tiruchirappalli, Tiruchirappalli, India, and
Bharadhwaj Sivakumaran
Department of Marketing, Great Lakes Instititute of Management, Chennai, India

Abstract

Purpose – The purpose of this paper is to study the affective outcome of ambivalent nostalgia through use of executional variables, develop a framework linking nostalgia (through affect) and consumers' cognitive processing, and explain the relationship of nostalgia with self-brand connection (SBC) and willingness to pay a premium (WTPP) through a mediator, cognitive processing.
Design/methodology/approach – This research is based on two experiments. In study 1, students were shown a nostalgic ad paired with a vignette to manipulate "past–present contrast." In study 2, positive and negative moods were induced and an informative nostalgic ad was shown to measure processing styles and SBC and WTPP; this was followed by mediation analysis.
Findings – The findings are as follows: first, "Past–present contrast" can reduce the negative affect in nostalgia, making it less ambivalent; second, positive (negative) affect leads to top-down (bottom-up) processing; third, SBC and WTPP are higher when top-down processing is used; and, fourth, processing style is a mediator between affect and SBC/WTPP.
Practical implications – Managers may use the "good past, good present" scenario to mitigate negative affect in nostalgia. Nostalgic ads may be used by brands that want consumers to pay a price premium, have a strong SBC and when they want consumers to use top-down processing.
Originality/value – This paper demonstrates how to reduce ambivalence and associate brands with positive affect in nostalgia, and gain SBC and WTPP; the mediating role of cognitive processing in the relationship of nostalgia with SBC and WTPP is delineated.

Keywords Nostalgia, Willingness to pay a premium (WTPP), Ambivalent emotion, Cognitive processing, Self-brand connection (SBC)

Paper type Research paper

This paper studies nostalgic advertising, which is based on cues/themes that flash back to the past. Considerable work deals with the emotional content of nostalgia (e.g. Holak and Havlena, 1998). Nostalgia is considered ambivalent (Merchant *et al.*, 2013) since there is a co-occurrence of positive and negative affect (Russell and Carroll, 1999), though the former outweighs the latter (Zhou *et al.*, 2008). Happiness in nostalgia arises as a result of appreciation and re-enjoyment of past experiences, while sadness and discontent arise as a result of the contrast between the desirable past and undesirable present (Johnson-Laird and Oatley (1989). Thus, ambivalence in nostalgia is because of the past–present contrast and the realization that one cannot go back to the past. Nostalgia is effective if it enhances positive emotions and reduces negative emotions associated with nostalgia (Merchant *et al.*, 2013). Hence:

RQ1. What kind of cues in nostalgic ads can minimize (maximize) the nostalgia-generated negative (positive) affect?

Brands want more from nostalgic ads than just emotions in order to be successful (http://adage.com/article/cmo-strategy/nostalgia-engage-millennials/306429/). While research has examined the role of other emotions on information processing (Schwarz and Clore, 1996),

Marketing Intelligence & Planning
Vol. 37 No. 3, 2019
pp. 284-297

0263-4503
DOI 10.1108/MIP-04-2018-0127

it has not studied nostalgia related to information processing (Muehling and Pascal, 2011). Persuasion in nostalgia follows a dual-route process: cognitive and affective (Chou and Lien, 2010). Hence:

RQ2. What is the influence of nostalgia on cognitive processing of consumers during evaluation of nostalgic advertisements?

Emotion and cognition involved in nostalgia evoked through advertising is displaced on to the brand shown in the ad (Hirsch, 1992). Consumers then develop a self-brand connection (SBC) (Ferraro *et al.*, 2011). SBC is both cognitive and emotional. Consumers are more likely to allocate more monetary resources for brands they feel connected to (Whan Park *et al.*, 2010). Therefore, we also investigate willingness to pay a premium (WTPP) as an outcome variable. Nostalgia results in SBC (Merchant *et al.*, 2013; Kessous *et al.*, 2015) and WTPP (Lyon and Colquhoun, 1999; Merchant *et al.*, 2015), but the mechanism for these findings is not clear (Lasaleta *et al.*, 2014). Hence:

RQ3. What is the role of cognitive processing on SBC and WTPP for brands in nostalgic ads?

Nostalgia research in marketing deals with: understanding the concept of nostalgia, particularly the functions of nostalgia such as restorative function (e.g. Zhou *et al.*, 2008), displacement mechanism in nostalgia (e.g. Hirsch, 1992); emotional content of nostalgia (e.g. Holak and Havlena, 1998); antecedents of nostalgia (e.g. Loveland *et al.*, 2010); consequences of nostalgia (e.g. Muehling, 2013); moderators influencing nostalgia (e.g. Holbrook, 1993); and scale development (e.g. Marchegiani and Phau, 2013).

Examination of executional variable that may enhance the positive and reduce the negative valence of nostalgia

Since nostalgia deals with the past and compares it with the present, we consider the variable "Past–Present Contrast" (the degree to which a stimulus can change the perception about the present).

"Past–present contrast"

To evoke nostalgia, the past is always made out to be more beautiful than it actually was (Goulding, 2000). This leads to an increase in negative perception of the present, which evokes some negative affect along with the positive affect associated with the past. This also contributes toward the ambivalence of nostalgia. Connecting the past with the present is a better approach than comparing the two time frames (Sedikides *et al.*, 2008). Revisiting the past to avoid the present makes an individual abstain from new experiences and thus she cannot create new memories (Sedikides *et al.*, 2008). The inherent danger of nostalgia is therefore refusal to move onto new things in life and lack of future optimism. Therefore, if a stimulus induces a "good past, good present" perception, it reduces a past–present contrast which, in turn, will reduce the negative affect of nostalgia and generate stronger positive affect. Hence:

H1. Positive affect is greater when a stimulus induces the "good past, good present" perception than when it induces the "good past, bad present" perception.

H2. Negative affect is lower when a stimulus induces the "good past, good present" perception than when it induces the "good past, bad present" perception.

Study 1

We conduct experiments using student samples in this paper. Past studies have also investigated nostalgic responses to advertisements through experiments using student samples (e.g. Muehling and Sprott, 2004; Marchegiani and Phau, 2010).

Subjects watched a nostalgic ad and then read a vignette that manipulated "past–present contrast." Vignettes are often paired with other stimuli ads in experimental research (e.g. Patrick *et al.*, 2015). Watching a nostalgic ad first would evoke the desired nostalgia and the supplementary vignette would manipulate the ambivalence of nostalgia to evoke affective responses to nostalgia.

First, subjects watched the Google reunion ad (a heavily nostalgia-laden narrative about two friends separated during the 1947 Indo–Pak partition), and now reunited by their grandchildren using a range of Google products (https://youtu.be/gHGDN9-oFJE). The ad is neutral about the present, thus enabling manipulation of "past–present contrast." It is also somewhat neutral about the past. We manipulated the variable with the help of vignettes that subjects read once they watched the ad. Thus, the Google ad evoked nostalgia, and vignettes, in line with past research (Grønhøj and Bech-Larsen, 2010), helped to manipulate the variable under consideration. Two narrative-style vignettes (aligned with the Google ad theme) were developed to manipulate affect in nostalgia through "past–present contrast." The use of the vignette method is appropriate in this study as it makes it possible to create specific situations with executional variables in the context of Google ad. We used the following vignettes to manipulate affect in nostalgia through "past–present contrast."

"Good past, bad present" perception. In the past, it was difficult to imagine childhood without play. Children had freedom to invent games such as climbing trees and flying kites with their family and friends. These precious memories and experiences in the present world have been replaced by times sitting down in front of a screen either for watching television or doing Internet activities such as social networking and gaming. The sad reality is that many of today's children regard these activities as "playtime." As a result, they are not only abstained from real world experiences but also face health problems such as obesity. They also face difficulty in dealing with people in the real world. Perhaps our parents are right when they say: "past was much better than the present."

"Good past, good present" perception. Whenever we think of the past, we recollect a number of sweet memories from our childhood such as that of old friends, school picnics, family outings, birthdays and festival celebrations. Sometimes these memories are blurred and many incidences from our childhood we come to know about are only through parents or old dull photographs in the family albums. In the present digital era, social networking sites have made us realize the importance of pictures and we have got habituated of capturing every moment of our lives. It seems that today's children and parents are really lucky that in future they will have easy access to all the precious moments from their past well captured by their parents and friends. Thus, we cannot deny the fact that the present is as good as the past.

In total, 98 postgraduate students (male = 55 percent; mean age = 24) from a leading national Indian university were the subjects. They were not told the purpose of the study. We exposed the subjects to a Google reunion ad (https://youtu.be/gHGDN9-oFJE) in order to evoke nostalgia ($M = 5.39$ on a six-item seven-point scale of nostalgia) (Muehling and Pascal, 2011; Muehling, 2013). The vignettes were presented in the form of an excerpt from a magazine or a situation. Immediately after viewing the ad, subjects were instructed to read the vignettes followed by a set of questions. The questions included ten items from the feelings inventory (Burke and Edell, 1989) for measuring positive (five items) and negative affect (five items). See Appendix 1 for scales.

Thus, the stimuli for the study consisted of two online links each with a Google ad immediately followed by an appropriate vignette and a set of questions.

Study 1 – results

A MANOVA was conducted, with positive and negative affect as dependent variables, and past–present contrast as a between-subjects factor. The results revealed a significant

multivariate main effect for past–present contrast (Pillai's Trace = 0.217, F[2, 47] = 6.514, $p < 0.01$). Follow-up ANOVAs revealed that the past–present contrast influenced negative affect significantly (F[1, 48] = 12.914, $p < 0.01$) while no significant effect was found on positive affect (F[1, 48] = 0.696, $p = 0.408$). The means of negative affect were 1.65 and 2.43, respectively, for "good past, good present" and "good past, bad present," thus supporting only *H2* (see Table I for results).

Relationship of nostalgia with cognitive processing style, SBC and WTPP

Top-down processing style and bottom-up processing style

Top-down processing style is subjective and recipients are systematically biased toward external information as a result of activation of some cognitive schema. Bottom-up processing style is objective and the recipients act rationally and external information is viewed as impartial and data-driven (Epstein, 1994). According to Gineikiene and Diamantopoulos (2017), the impact of an ambivalent emotion depends on which of the two emotional responses, positive or negative, is more dominant. According to the Affect-As-Information (AAI) approach (Schwarz and Clore, 1996), affective states provide information about the nature of current situation. Positive affective states indicate that the current situation is non-problematic, while negative affective states indicate the opposite (Bless *et al.*, 1990). Similarly, positive (negative) affect evoked as a result of ambivalent nature of nostalgia may point to the non-problematic (problematic) nature of the current situation.

Cognitive tuning hypothesis (Bless *et al.*, 1990) states that cognitive processes are tuned to meet the situational requirements signaled by our feelings. Similarly, cognitive processes can be linked to situational requirements signaled by positive and negative feelings evoked as a result of nostalgia. Thus, individuals in negative affective states engage in detail-oriented systematic cognitive processing. On the other hand, individuals in positive affective states are not motivated to engage in effortful processing and hence engage in heuristics. Therefore, the positive (negative) affect would lead individuals to engage in less (more) effortful processing. Hence:

H3. Positive affect leads to the use of top-down processing style for the evaluation of a nostalgic stimulus by consumers.

H4. Negative affect leads to the use of bottom-up processing style for the evaluation of a nostalgic stimulus by consumers.

Self-brand connection

SBC is the relationship formed with a brand as a result of a consumer's use of brand associations (meanings) to construct self-identities (Escalas, 2004). Different brand associations such as brand image shown through advertising, and personal experiences with the brand are used to construct one's self and to communicate one's self to others (Moore and Homer, 2008). According to Chatzipanagiotou *et al.* (2016), nostalgia is one of the most important factors that contribute toward SBC. When ads evoke nostalgia through

Table I. Results of one-way MANOVA in study 1: effect of executional variable on positive and negative affect of nostalgia

Between-subject factor	Treatment	*n*	Positive affect *M*	Positive affect *F*	Negative affect *M*	Negative affect *F*
Past–present contrast	Good past, bad present	23	3.37	0.696 (NS)	2.43	12.914 (S)**
	Good past, good present	27	3.56		1.65	

Notes: NS, not significant; S, significant. **$p < 0.01$

various cues referring to events in one's life, they elicit narrative thought and an individual engages in narrative processing and gets occupied with images/memories of past events (Muehling and Pascal, 2011), similar to what happens in top-down processing.

As a consequence of nostalgia-generated positive affect, consumers engage in positive self-referenced thoughts (Muehling and Sprott, 2004). Through a nostalgic stimulus, he/she is able to reconnect to positive past experiences with the brand and what meaning the brand added to his/her life. Therefore, brands which evoke stronger positive affect in nostalgia help individuals make strong connections with themselves (Kessous and Roux, 2010). As a consequence of nostalgia-generated negative affect, consumers fail to engage in strong self-directed thoughts (Muehling and Sprott, 2004). As a result, consumers are unable to reconnect to positive past experiences with the product. Therefore, in such cases, consumers cannot make strong connections between brands and themselves (Kessous and Roux, 2010). All these outcomes are the result of the type of processing consumers engage in – top-down or bottom-up. Hence:

H5. Top-down processing style adopted for a nostalgic stimulus results in a stronger SBC as compared to bottom-up processing style.

Willingness to pay a premium

Merchant *et al.* (2015) showed that brand heritage leads to WTPP through the mediating role of nostalgia. In the case of top-down processing, consumers map the incoming nostalgic cues or themes onto experiences or events stored in their (episodic) memory. They associate the advertised products with experiences or events of the past they feel nostalgic about. These experiences or events are associated with their close others and increase their perceived social support or social connectedness (Zhou *et al.*, 2008). Past research shows that mere presence of money can reduce the need to belong and to connect socially (Vohs *et al.*, 2008). Nostalgia with its ability to foster social connectedness, would lead individuals to have weak desire for money; Lasaleta *et al.* (2014) corroborates this. Hence:

H6. Top-down processing style adopted for a nostalgic stimulus results in a stronger WTPP as compared to bottom-up processing style.

Study 2 – methodology

In total, 57 postgraduate students (male = 51 percent; mean age = 24) from a leading national institute of India were used as subjects. They were told that this exercise was a part of an advertising study.

We measured the baseline mood of the subjects and induced positive mood and negative mood by adopting the mood-induction procedure used by Avnet *et al.* (2012) and Chang and Pham (2012), Avnet *et al.* (2012) and Chang and Pham (2012) expanded further on AAI (Schwarz and Clore, 1996), one of the principal theories used in our research, by linking trust, affect, decision making and information. Hence, we found it suitable to use the same mood-induction procedure in our context. A short video of a stand-up comedy from a popular TV show was shown to induce positive mood, while a sad clip from a TV show which focusses on sensitive social issues was shown to induce negative mood. Subsequent to the videos, subjects were asked to rate their mood on three seven-point items (very unhappy/very happy; very bad/very good; very unpleasant/very pleasant). After the successful mood manipulation, subjects were shown the "The Times of India" nostalgic ad (https://youtu.be/rt9_0_92K7c) to measure the processing style used for evaluation ($M = 5.02$ on a six-item seven-point scale of nostalgia) (Muehling and Pascal, 2011; Muehling, 2013). This ad was modified to have a greater number of information cues so that it can be used to measure cognitive processing style.

Thus, the stimuli for the study consisted of two online links each with two activities: watching a 3-min video of a stand-up comedy to induce positive mood or a 4-min clip on sensitive social issues to induce negative mood, followed by a set of questions; and watching a 1 min 22 s video of a "The Times of India" ad followed by three sets of questions.

We adopted the procedure used by Keller and Block (1996) to measure the extent of processing. This procedure is suitable in our context as well because it was originally used to measure the extent of processing during an emotional experience. Also, there is no separate scale available to measure the extent of processing. We asked subjects to list down their thoughts or what was going through their minds as they watched the ad (Keller and Block, 1996). A person who was blind to the experimental conditions classified the thoughts as self-related/nostalgic and ad execution/brand/message related. By definition, elaboration on self-related or nostalgic thoughts indicates top-down processing while elaboration on ad execution or brand/message related thoughts indicates bottom-up processing (Marchegiani and Phau, 2010).

We also additionally measured the extent of bottom-up processing. We asked the subjects to recall what they remembered from the ad (Keller and Block, 1996). A recall score was computed by assigning one point for remembering each of the informational cues outlined in the message. Information cues were defined according to Resnik and Stern's (1977) criteria (see Appendix 2 for coding criteria).

SBC was measured by adopting the scale used by Escalas (2004), while WTPP was measured by adopting the scale used by Netemeyer *et al.* (2004).

Study 2 – results

We first conducted manipulation checks for mood. A repeated measures ANOVA was conducted, with mood as a dependent variable, and exposure to comedy clip as a within-subjects factor. The results of the ANOVA revealed a significant main effect of exposure to comedy clip on mood (Wilks' $\lambda = 0.422$, Pillai's Trace $= 0.578$, F[1, 27] $= 37.001$, $p < 0.001$). Significant differences were obtained between baseline mood ($M = 4.80$) and mood after exposure to comedy clip ($M = 5.57$) (see Table II for results). Another repeated measures ANOVA was conducted, with mood as a dependent variable, and exposure to sad clip as a within-subject factor. The results revealed a significant main effect of exposure to sad clip on mood (Wilks' $\lambda = 0.152$, Pillai's Trace $= 0.848$, F[1, 28] $= 1.562E2$, $p < 0.001$). Significant differences were obtained between baseline mood ($M = 5.37$) and mood after exposure to sad clip ($M = 2.09$) (see Table II for results).

A univariate analysis of variance (ANOVA) was conducted, with mood as a dependent variable, and exposure to video clip as a between-subject factor. The results of a one-way univariate ANOVA revealed a significant main effect of exposure to video clip on mood (F[1, 55] $= 183.395$, $p < 0.001$). Subjects who watched the comedy clip reported more positive mood ($M = 5.57$) than subjects who watched the sad clip ($M = 2.09$) (see Table II

Within-subject factor	n	Mood: Baseline mood (M)	Mood: Mood after manipulation (M)	Between-subject factor	Treatment	n	M	Mood: F
Exposure to comedy clip	28	4.80	5.57 (S)***	Exposure to video clip	Exposure to comedy clip (positive mood)	28	5.57	183.395 (S)***
Exposure to sad clip	29	5.37	2.09 (S)***		Exposure to sad clip (negative mood)	29	2.09	

Notes: NS, not significant; S, significant. ***$p < 0.001$

Table II. Results of repeated measures ANOVA for mood change and one-way univariate ANOVA for positive and negative mood manipulation check

for results). Thus, positive and negative mood were successfully induced as discussed in the previous section.

Then, we measured the cognitive processing styles to test *H3* and *H4*. For this, we adopted the procedure used by Keller and Block (1996). A MANOVA was conducted, with imagery and recall score as dependent variables, and mood as a between-subject factor. The results indicated a significant multivariate main effect for mood (Wilks' $\lambda = 0.560$, Pillai's Trace = 0.440, F[2, 54] = 21.179, $p < 0.001$). Follow-up ANOVAs revealed that mood influenced imagery and recall score significantly (F[1, 55] = 5.168, $p < 0.05$ and F[1, 55] = 36.536, $p < 0.001$, respectively). The means of imagery were 4.57 and 3.76, and recall score were 0.64 and 1.86, respectively, for positive and negative mood (See Table III for results). Thus, we got empirical support for *H3* and *H4*.

Finally, we measured SBC and WTPP. A MANOVA was conducted (SBC and WTPP were dependent variables) with cognitive processing style as a between-subject factor. The results showed a significant multivariate main effect of processing style (Wilks' $\lambda = 0.881$, Pillai's Trace = 0.119, F[2, 54] = 3.632, $p < 0.05$). Separate univariate analyses of variance (ANOVAs) revealed that cognitive processing style influenced SBC and WTPP significantly (F[1, 55] = 4.485, $p < 0.05$ and F[1, 55] = 5.311, $p < 0.05$, respectively). The means of SBC were 4.06 and 3.38, and WTPP were 4.87 and 4.14, respectively, for top-down and bottom-up processing, thus supporting *H5* and *H6* (see Table III for results).

Test of cognitive processing styles as mediator

We tested for the mediating effect of top-down and bottom-up processing through Baron and Kenny's (1986) procedures.

First, we regressed top-down processing on positive affect and bottom-up processing on negative affect. We found that both positive affect ($\beta = 0.521$, $t = 3.114$, $p = 0.004$) and negative affect ($\beta = 0.513$, $t = 3.108$, $p = 0.004$) were significant. Then, we regressed SBC on positive affect and negative affect. We found that both positive affect ($\beta = 0.421$, $t = 2.367$, $p = 0.026$) and negative affect ($\beta = -0.495$, $t = -2.959$, $p = 0.006$) were significant. Similarly, we regressed WTPP on positive affect and negative affect. We found that both positive affect ($\beta = 0.507$, $t = 3.001$, $p = 0.006$) and negative affect were significant ($\beta = -0.434$, $t = -2.503$, $p = 0.019$). Finally, we regressed SBC on top-down and bottom-up processing, while controlling for the effect of positive and negative affect. We found that top-down processing ($\beta = 0.671$, $t = 4.073$, $p = 0.000$) and bottom-up processing ($\beta = -0.456$, $t = -2.575$, $p = 0.016$) were significant while positive affect ($p = 0.669$) and negative affect ($p = 0.154$) were not. Also in the corresponding regression for WTPP, we found that top-down processing ($\beta = 0.432$, $t = 2.367$, $p = 0.026$) and bottom-up processing ($\beta = -0.481$, $t = -2.626$, $p = 0.014$) were significant while positive affect ($p = 0.135$) and negative affect ($p = 0.316$) were not. From this, therefore, we infer that the effect of positive and negative

Table III.
Results of one-way MANOVA: relationship of affect (mood), processing style, SBC and WTPP

Between-subject factor	Treatment	n	Imagery (top-down processing)		Recall score (bottom-up processing)	
			M	F	M	F
Mood	Positive mood	28	4.57	5.168 (S)*	0.64	36.536 (S)***
	Negative mood	29	3.76		1.86	
			SBC		WTPP	
			M	F	M	F
Cognitive Processing style	Top-down processing (positive affect)	28	4.06	4.485 (S)*	4.87	5.311 (S)*
	Bottom-up processing (negative affect)	29	3.38		4.14	

Notes: NS, not significant; S, significant. *$p < 0.05$; ***$p < 0.001$

affect on SBC and WTPP is fully mediated by top-down and bottom-up processing. Please see Table IV for a summary of the above regressions.

General discussion and contributions

We find strong support for all the hypotheses but one (see Table V for summary). First, we identified an executional variable in a nostalgic ad: "past–present contrast." If the stimulus induces the "good past, good present" perception, it would reduce the perceived difference between past and the present and thus, the negative affect will be reduced. Next, we investigated the relationship between affect and cognitive processing. Results showed that positive affect leads to adoption of top-down processing style while negative affect leads to bottom-up processing style. Lastly, we investigated the relation between cognitive processing and two outcome variables, i.e. SBC and WTPP. Findings indicate that SBC and WTPP are higher when top-down processing is used as compared to bottom-up processing. Moreover, results showed the mediating role of cognitive processing in the relationship between affect and outcome variables, i.e. SBC and WTPP. This implies that positive affect of nostalgia leads to higher SBC and WTPP as the top-down processing style is used. On the other hand, negative affect of nostalgia leads to lower SBC and WTPP as the bottom-up processing style is used. Prior research showed that positive emotions of nostalgia strengthen the SBC (Merchant *et al.*, 2013) and also result in WTPP but did not explain the underlying mechanism through which it works (Lasaleta *et al.*, 2014). These relationships can now be explained through cognitive processing.

However, *H1* relating to enhancing nostalgia-generated positive affect through past–present contrast was not supported. The mean difference was not statistically significant although the mean values are in the expected direction. For the variable past–present contrast, it seems that the issue which was compared, i.e. the ability to create memories through photographs is more widespread in the present as compared to the past was not so strong so as to create the desired effect. On the contrary, individuals are motivated to suppress the negative affect as

	Top-down processing	SBC	SBC	WTPP	WTPP
R^2	0.272	0.177	0.506	0.257	0.393
F	9.697 (S)**	5.605 (S)*	12.779 (S)***	9.007 (S)**	8.101 (S)**
β – positive affect	0.521 (S)**	0.421 (S)*	0.071 (NS)	0.507 (S)**	0.282 (NS)
β – top-down processing			0.671 (S)***		0.432 (S)*
	Bottom-up processing				
R^2	0.263	0.245	0.398	0.188	0.359
F	9.659 (S)**	8.755 (S)**	8.606 (S)***	6.266 (S)*	7.265 (S)**
β – negative affect	0.513 (S)**	−0.495 (S)**	−0.261 (NS)	−0.434 (S)*	−0.187 (NS)
β – bottom-up processing			−0.456 (S)*		−0.481 (S)*

Notes: NS, not significant; S, significant. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table IV. Results of regression equations testing mediation of top-down and bottom-up processing styles

Hypotheses	F	Result
H1: "Past–present contrast" → strong +ve affect in nostalgia	0.696 (NS)	Not supported
H2: "Past–present contrast" → weak −ve affect in nostalgia	12.914 (S)**	Supported
H3: +ve affect → top-down processing style	5.168 (S)*	Supported
H4: −ve affect → bottom-up processing style	36.536 (S)***	Supported
H5: Top-down processing style → strong SBC	4.485 (S)*	Supported
H6: Top-down processing style → strong WTPP	5.311 (S)*	Supported

Notes: NS, not significant; S, significant. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table V. Summary of the results

they want to reduce the conflict of opposite affect felt while experiencing ambivalent emotion such as nostalgia (Aaker *et al.*, 2008). Thus, the executional cues acted as triggers to reduce the negative affect, which was not the case with positive affect.

Theoretical contributions

Our research makes significant contributions. While extant research points out that nostalgic advertising must enhance (reduce) positive (negative) emotions (Merchant *et al.*, 2013), this paper is among the first to actually empirically demonstrate how this can be done (by using "past–present contrast"). Moreover, our research contradicts the earlier notion that the two routes of persuasion in nostalgia, affective and cognitive, are mutually independent (Chou and Lien, 2010). Our research empirically demonstrates that the two routes of persuasion in nostalgia – affective and cognitive route – are not independent. It investigated different cognitive processing styles adopted as a result of negative affect or positive affect component of nostalgia. We found that positive affect lead to the use of the top-down processing style for evaluating a nostalgic stimulus while negative affect lead to the use of the bottom-up processing style. Moreover, our results extend the prior research on the relationship between nostalgia and SBC and WTPP (Lasaleta *et al.*, 2014; Merchant *et al.*, 2013). Our results show the mediating role of cognitive processing in the relationship between nostalgia and SBC or WTPP and thus explain the underlying mechanism by which nostalgia has an effect on these two outcome variables.

Managerial contributions

Managers use nostalgic advertising, to decrease the negative affect in this ambivalent emotion, advertisers must show the "good past, good present" (not the "good past, bad present"). In a content analysis of TV ads in India, Srivastava *et al.* (2017) found that almost 13 percent of nostalgic ads in India highlighted the "good past, bad present." For example, an ad of Lifebuoy (a Unilever product), does this (https://youtu.be/UF7oU_YSbBQ). Our results suggest that for a nostalgic ad, this is probably not the correct strategy. This does not reduce the negative affect of nostalgia and thus, the ambivalence of nostalgia persists. On the other hand, in the same content analysis, Srivastava *et al.* (2017) found that 14 percent of nostalgic ads showed the "good past, good present." For example, an Asian Paints ad does this in India (https://youtu.be/b_u5C749aKQ). Volkswagen Beetle follows this as well in Germany (https://youtu.be/vUAOamdJHCk). On the other hand, Ikea in its "Wonderful Everyday" campaign depicts the memories of lifetime spent by a couple and these are recollected by an elderly woman through a photo album (https://youtu.be/xeEA09XCgVI). The ad juxtaposes several of the couple's seemingly ordinary moments with much grander scenes set to background score of "You and Me." In the end, this elderly woman is seen with her daughter and her husband seen nowhere around, leaving an impression that they are not together. This creates a perception of "good past, bad present." Our findings indicate that this is possibly not the right strategy.

When brands want consumers to pay a price premium and have a strong self-brand connect, we found that nostalgic ads work well. This paper suggests that premium brands may use nostalgia in their advertising. This is because they wish to extract a price premium through nostalgia. For example, Greenply, a premium brand for plywood in India and Volkswagen in Germany, use nostalgia in their advertising. Brands wish consumers to have strong SBC. Nostalgia is an effective mechanism to achieve this objective. For instance, Tanishq and Ikea use nostalgic advertising to connect with the consumers. Finally, we also found that the positive affect engendered by nostalgia makes consumers process information top-down as opposed to bottom-up. Hence, nostalgic ads may be used by brands that want consumers to process top-down. In contrast, brands that want consumers to process bottom-up may not wish to use nostalgia in their advertising. This is in line with what Hoch and Deighton (1989), who advocate for topdog and underdog brands, respectively.

A topdog like Samsung may wish to make consumers process information top-down and hence uses nostalgia in its advertising. But an underdog like Micromax wishes consumers to learn about its product features and does not use nostalgia in advertising. In sum, our research, apart from making significant theoretical contributions, also has useful pointers from a practical standpoint.

Limitations and future research

It would be interesting to investigate in future the processing style used for the secondary stimulus shown after the nostalgic stimulus is presented. According to resource matching hypothesis (Meyers-Levy and Peracchio, 1995), the match between informativeness in ad and cognitive resources to process information will decide where the ad should be placed in media to achieve maximum persuasion. Thus, future research may be directed to investigate the cognitive processing styles used for the non-nostalgic ad as a secondary task considering evaluation of nostalgic ad as a primary task. This may further open avenues for research on presentation order of ads in media and ways to achieve persuasion.

Our research was confined to two outcome variables, SBC and WTPP, and it did not consider other possible marketing consequences to nostalgia. In future, we may look at other marketing consequences to nostalgia such as persuasiveness of nostalgic ads, brand loyalty, etc. In this research, we focused on the consequences of nostalgic appeal. We can further extend this research by doing a comparative study and compare the consequences of nostalgic appeal with that of any other appeal such as humor appeal. Also, different socio-economic and age groups may be considered in future research. There may be age and gender differences in nostalgic responses and this might open an interesting avenue for future research. While the use of student samples is prevalent in research (e.g. Marchegiani and Phau, 2010, 2011), possibly due to the use of nostalgia by brands that target young people (e.g. Google), future research may test our model with older consumers as well.

References

Aaker, J., Drolet, A. and Griffin, D. (2008), "Recalling mixed emotions", *Journal of Consumer Research*, Vol. 35 No. 2, pp. 268-278.

Avnet, T., Pham, M.T. and Stephen, A.T. (2012), "Consumers' trust in feelings as information", *Journal of Consumer Research*, Vol. 39 No. 4, pp. 720-735.

Baron, R.M. and Kenny, D.A. (1986), "The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.

Bless, H., Bohner, G., Schwarz, N. and Strack, F. (1990), "Mood and persuasion: a cognitive response analysis", *Personality and Social Psychology Bulletin*, Vol. 16 No. 6, pp. 331-345.

Burke, M.C. and Edell, J.A. (1989), "The impact of feelings on ad-based affect and cognition", *Journal of Marketing Research*, Vol. 26 No. 1, pp. 69-83.

Chang, H.H. and Pham, M.T. (2012), "Affect as a decision-making system of the present", *Journal of Consumer Research*, Vol. 40 No. 1, pp. 42-63.

Chatzipanagiotou, K., Veloutsou, C. and Christodoulides, G. (2016), "Decoding the complexity of the consumer-based brand equity process", *Journal of Business Research*, Vol. 69 No. 11, pp. 5479-5486.

Chou, H. and Lien, N. (2010), "Advertising effects of songs' nostalgia and lyrics' relevance", *Asia Pacific Journal of Marketing and Logistics*, Vol. 22 No. 3, pp. 314-329.

Epstein, S. (1994), "Integration of the cognitive and the psychodynamic unconscious", *American Psychologist*, Vol. 49 No. 8, pp. 709-724.

Escalas, J.E. (2004), "Narrative processing: building consumer connections to brands", *Journal of Consumer Psychology*, Vol. 14 No. 1, pp. 168-180.

Ferraro, R., Escalas, J.E. and Bettman, J.R. (2011), "Our possessions, our selves: domains of self-worth and the possession–self link", *Journal of Consumer Psychology*, Vol. 21 No. 2, pp. 169-177.

Gineikiene, J. and Diamantopoulos, A. (2017), "I hate where it comes from but I still buy it: countervailing influences of animosity and nostalgia", *Journal of International Business Studies*, Vol. 48 No. 8, pp. 992-1008.

Goulding, C. (2000), "The commodification of the past, postmodern pastiche, and the search for authentic experiences at contemporary heritage attractions", *European Journal of Marketing*, Vol. 34 No. 7, pp. 835-853.

Grønhøj, A. and Bech-Larsen, T. (2010), "Using vignettes to study family consumption processes", *Psychology & Marketing*, Vol. 27 No. 5, pp. 445-464.

Hirsch, A.R. (1992), "Nostalgia: a neuropsychiatric understanding", in Sherry, J.F. Jr and Sternthal, B. (Eds), *NA – Advances in Consumer Research*, Vol. 19, Association for Consumer Research, Provo, UT, pp. 390-395.

Hoch, S.J. and Deighton, J. (1989), "Managing what consumers learn from experience", *Journal of Marketing*, Vol. 53 No. 2, pp. 1-20.

Holak, S.L. and Havlena, W.J. (1998), "Feelings, fantasies, and memories: an examination of the emotional components of nostalgia", *Journal of Business Research*, Vol. 42 No. 3, pp. 217-226.

Holbrook, M.B. (1993), "Nostalgia and consumption preferences: some emerging patterns of consumer tastes", *Journal of Consumer Research*, Vol. 20 No. 9, pp. 245-256.

Johnson-Laird, P.N. and Oatley, K. (1989), "The language of emotions: an analysis of a semantic field", *Cognition and Emotion*, Vol. 3 No. 2, pp. 81-123.

Keller, P.A. and Block, L.G. (1996), "Increasing the persuasiveness of fear appeals: the effect of arousal and elaboration", *Journal of Consumer Research*, Vol. 22 No. 4, pp. 448-459.

Kessous, A. and Roux, E. (2010), "Brands considered as 'nostalgic': consequences on attitudes and consumer-brand relationships", *Recherche et Applications en Marketing (English Edition)*, Vol. 25 No. 3, pp. 29-55.

Kessous, A., Roux, E. and Chandon, J.L. (2015), "Consumer–brand relationships: a contrast of nostalgic and non-nostalgic brands", *Psychology & Marketing*, Vol. 32 No. 2, pp. 187-202.

Lasaleta, J.D., Sedikides, C. and Vohs, K.D. (2014), "Nostalgia weakens the desire for money", *Journal of Consumer Research*, Vol. 41 No. 3, pp. 713-729.

Loveland, K.E., Smeesters, D. and Mandel, N. (2010), "Still preoccupied with 1995: the need to belong and preference for nostalgic products", *Journal of Consumer Research*, Vol. 37 No. 3, pp. 393-408.

Lyon, P. and Colquhoun, A. (1999), "Selectively living in the past: nostalgia and lifestyle", *Journal of Consumer Studies & Home Economics*, Vol. 23 No. 3, pp. 191-196.

Marchegiani, C. and Phau, I. (2010), "Effects of personal nostalgic response intensity on cognitions, attitudes, and intentions", *Journal of Research in Interactive Marketing*, Vol. 4 No. 3, pp. 241-256.

Marchegiani, C. and Phau, I. (2011), "The value of historical nostalgia for marketing management", *Marketing Intelligence & Planning*, Vol. 29 No. 2, pp. 108-122.

Marchegiani, C. and Phau, I. (2013), "Development and validation of the personal Nostalgia scale", *Journal of Marketing Communications*, Vol. 19 No. 1, pp. 22-43.

Merchant, A., Latour, K., Ford, J.B. and Latour, M.S. (2013), "How strong is the pull of the past: measuring personal nostalgia evoked by advertising", *Journal of Advertising Research*, Vol. 53 No. 2, pp. 150-165.

Merchant, A., Latour, K., Ford, J.B., Latour, M.S., Rose, G.M., Moody, G. and Mathews, L. (2015), "Effect of university heritage and reputation on attitudes of prospective students", *International Journal of Non-Profit and Voluntary Sector Marketing*, Vol. 20 No. 1, pp. 25-37.

Meyers-Levy, J. and Peracchio, L.A. (1995), "Understanding the effects of color: How the correspondence between available and required resources affects attitudes", *Journal of Consumer Research*, Vol. 22 No. 2, pp. 121-138.

Moore, D.J. and Homer, P.M. (2008), "Self-brand connections: the role of attitude strength and autobiographical memory primes", *Journal of Business Research*, Vol. 61 No. 7, pp. 707-714.

Muehling, D.D. (2013), "The relative influence of advertising-evoked personal and historical nostalgic thoughts on consumers' brand attitudes", *Journal of Marketing Communications*, Vol. 19 No. 2, pp. 98-113.

Muehling, D.D. and Pascal, V.J. (2011), "An empirical investigation of the differential effects of personal, historical, and non-nostalgic advertising on consumer responses", *Journal of Advertising*, Vol. 40 No. 2, pp. 107-122.

Muehling, D.D. and Sprott, D.E. (2004), "The power of reflection: an empirical examination of nostalgia advertising effects", *Journal of Advertising*, Vol. 33 No. 3, pp. 25-35.

Netemeyer, R.G., Krishnan, B., Pullig, C., Wang, G., Yagci, M., Dean, D. and Wirth, F. (2004), "Developing and validating measures of facets of customer-based brand equity", *Journal of Business Research*, Vol. 57 No. 2, pp. 209-224.

Patrick, R.E., Rastogi, A. and Christensen, B.K. (2015), "Effortful versus automatic emotional processing in schizophrenia: insights from a face-vignette task", *Cognition and Emotion*, Vol. 29 No. 5, pp. 767-783.

Resnik, A. and Stern, B.L. (1977), "An analysis of information content in television advertising", *Journal of Marketing*, Vol. 41 No. 1, pp. 50-53.

Russell, J.A. and Carroll, J.M. (1999), "On the bipolarity of positive and negative affect", *Psychological Bulletin*, Vol. 125 No. 1, pp. 3-30.

Schwarz, N. and Clore, G.L. (1996), "Feelings and phenomenal experiences", in Kruglanski, A.W. and Higgins, E.T. (Eds), *Social Psychology: Handbook of Basic Principles*, Guilford, New York, NY, pp. 385-407.

Sedikides, C., Wildschut, T., Arndt, J. and Routledge, C. (2008), "Nostalgia past, present, and future", *Current Directions in Psychological Science*, Vol. 17 No. 5, pp. 304-307.

Srivastava, E., Maheswarappa, S. and Sivakumaran, B. (2017), "Nostalgic advertising in India: a content analysis of Indian TV advertisements", *Asia-Pacific Journal of Marketing and Logistics*, Vol. 29 No. 1, pp. 47-69.

Vohs, K.D., Mead, N.L. and Goode, M.R. (2008), "Merely activating the concept of money changes personal and interpersonal behaviour", *Current Directions in Psychological Science*, Vol. 17 No. 3, pp. 208-212.

Whan Park, C., MacInnis, D.J., Priester, J., Eisingerich, A.B. and Iacobucci, D. (2010), "Brand attachment and brand attitude strength: conceptual and empirical differentiation of two critical brand equity drivers", *Journal of Marketing*, Vol. 74 No. 6, pp. 1-17.

Zhou, X., Sedikides, C., Wildschut, T. and Gao, D. (2008), "Counteracting loneliness on the restorative function of Nostalgia", *Psychological Science*, Vol. 19 No. 10, pp. 1023-1029.

Appendix 1. Scales/measures used in the studies

A.1 Nostalgia scales (Muehling and Pascal, 2011; Muehling, 2013)

(Seven-point scale: 1 = strongly disagree and 7 = strongly agree)

Personal nostalgia-type scale items include:

(1) Makes me think about persons, places or things from my youth.

(2) Makes me feel good about a previous time: a time in my life.

(3) Makes me reminisce about a time in my life.

(4) I have warm feelings when reminiscing about this time from my youth.

(5) Evokes good feelings about a time in my life.

(6) Is a pleasant reminder of a time from my youth.

Historical nostalgia-type scale items include:

(1) Makes me feel good about a previous time: a time before my birth.

(2) Is a pleasant reminder of a time before I was born.

(3) Reminds me of an era before my birth.

(4) Makes me wish I could go back to a time before I was born.

(5) Makes me reminisce about a time before my birth.

(6) Evokes good feelings about a time before I was born.

A.2 Feelings inventory (Burke and Edell, 1989)

We would like you to tell us how the ad you just saw made you feel. We are interested in your reactions to the ad, not how you would describe it. Please tell us how much you felt each of these ten feelings while you were watching this advertisement (see Table A1 for feelings).

(Five-point scale: very strongly = 5, strongly = 4, somewhat strongly = 3, not very strongly = 2 and not at all = 1).

A.3 Measure for mood states (Avnet *et al.*, 2012; Chang and Pham, 2012)

Please rate your current mood on following scale:

(1) 1 = very unhappy/7 = very unhappy.

(2) 1 = very bad/7 = very good.

(3) 1 = very unpleasant/7 = very pleasant.

A.4 Measure for cognitive processing styles (Keller and Block, 1996)

(1) Please list the thoughts going through your mind while you engaged in the activities(You do not have to describe what was in the activity itself but rather what was going through your mind as you engaged in those activities. Please sufficiently elaborate for us to understand.)

(2) How difficult or easy was it to picture or imagine the content of the ad in your mind?(1 = very difficult/7 = very easy)

(3) Please recall whatever you remember from Activity 2 (*Times of India* ad).

(Please write in points: 1, 2, and so on. Try to recall as many things as you can about the ad without going back.)

A.5 Measure for self-brand connection (SBC) (Escalas, 2004)

Rate the following statements (1 = not at all; 7 = extremely well):

(1) *Times of India* reflects who I am.

(2) I can identify with *Times of India.*

Table AI.
Feelings inventory

	Positive affect	Negative affect
Items	Alive	Depressed
	Delighted	Disgusted
	Interested	Lonely
	Peaceful	Regretful
	Warm-hearted	Sad
Cronbach's α	0.71	0.75

(3) I feel a personal connection to *Times of India*.

(4) I (can) use *Times of India* to communicate who I am to other people.

(5) I think *Times of India* (could) help(s) me become the type of person I want to be.

(6) I consider *Times of India* to be "me" (it reflects who I consider myself to be or the way that 1 want to present myself to others).

(7) *Times of India* suits me well.

A.6 Measure for willingness to pay a premium (WTPP) (Netemeyer *et al.*, 2004)

Suppose you want to print an ad in a newspaper for your ongoing business.

(Useful information: the cost of a newspaper ad is determined by "column inches" used i.e. number of columns in width multiplied by number of inches in length.)

Now, rate the following statements (1 = strongly disagree; 7 = strongly agree):

(1) Advertising in *Times of India* seems smart to me even if the advertising cost per column inch is more than that in *Hindustan Times*.

(2) I am ready to pay a higher price per column inch for advertising in *Times of India* than in *Hindustan Times*.

(3) I would still advertise in *Times of India* if *Hindustan Times* reduces its per column inch price.

Appendix 2. Coding criteria for recall scores in study 2

Resnik and Stern's (1977) criteria was used to determine the information cues to be coded.

Times of India ad is as follows:

(1) Quality: 1838; 175 years.

(2) Company sponsored research: 3,140,000 daily circulations.

(3) Independent research: ranked 174th among India's most trusted brands.

(4) Availability: published by Bennett Coleman.

(5) Packaging/shape: newspaper shown.

Corresponding author

Ekta Srivastava can be contacted at: ekta.srivastava@iiml.org