



# Future Time Perspective Moderates Consumer Responses to Nostalgic Advertising

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**Abstract.** Humans remember their past and consider their future. Nostalgic advertising, focused on the personal past, increases positive consumer response to products. This research examines how future time perspective (FTP) moderates that effect. Based on socioemotional selectivity theory, the products studied represent goals individuals have when time feels limited (i.e., camera: familiar, socially focused, emotionally meaningful) or open-ended (i.e., VR-One: novel, information-focused, entertaining). As expected, ad-evoked nostalgia heightens positive consumer response to the camera, increasingly so when FTP feels limited (Study 1;  $N = 288$ ). For the VR-One, ad-evoked nostalgia again increases positive response but less so when time feels limited (Study 2;  $N = 283$ ). Thinking about how the past and the future interact to influence consumer preferences in adulthood is discussed.

**Keywords:** future time perspective, nostalgia, advertising, consumer preference

In line with the goals of this special issue, we present interdisciplinary research (i.e., bridging advertising and psychology) on the consequences of future time perspective (FTP) on consumer responses to nostalgic advertising. Specifically, this study investigates how an individual's sense of their own future time horizon moderates their consumer response to past-focused (i.e., nostalgic) advertising. The current research focuses on middle-aged adults, a group that, without any experimental priming or manipulation, can perceive their time left in life as half-full or half-empty (Strough et al., 2016). We argue that FTP is one individual characteristic that shapes the extent of appeal of nostalgic advertising in this group. Our work is in line with research demonstrating that the effect of nostalgic advertising appeals can be moderated by a variety of individual characteristics (e.g., Ju, Jun, Dodoo, & Morris, 2017).

Adults make hundreds of little decisions every day; one of which is how to spend their hard-earned money. They choose what to buy and what they will leave on the shelf. Marketing companies are responsible for understanding what sways people of all ages to reach for and buy a given product. Understanding how to maximize positive consumer response to advertising is a central goal of such applied research. Experiential marketing aims to increase product appeal by cueing consumers to envision personal experiences they might have with the product (e.g., feel, sense, think, act, relate; Schmitt, 1999). This is opposed to traditional advertising, which addresses features of the product itself (e.g., quality, price). The current research fo-

cuses on *nostalgic advertising*, a type of experiential marketing that involves evoking experiences of the consumer's personal past to influence their responses to products. For example, the 1950s diner-style restaurant often found in America (Chen, Yeh, & Huan, 2014) is set up to draw in customers who want to relive the "good old days" while dining. Experiential marketing is thus based on psychological principles, particularly what has been termed *mental time travel*.

Mental time travel, of course, involves not only the past. Although individuals look to their past to guide current behavior (Bluck, 2003), they do so while considering the future (e.g., Urminsky et al., 2014). Research has examined how traveling to one's future affects psychological functioning (for a review, see Fung & Isaacowitz, 2016) and guides behavioral intentions (e.g., Hershfield et al., 2011; Tasdemir-Ozdes, Strickland-Hughes, Bluck, & Ebner, 2016). Time perspective is now being adopted as an important construct in advertising because of its ease of use in framing messages to deliver to the consumer audience (Bülbül & Menon, 2010; Kuppelwieser & Sarstedt, 2014; Martin, Gnoth, & Strong, 2009). It is considered one of the critical explanatory factors that can account for consumer behavior (Kuppelwieser, 2016). Micu and Chowdury (2010), for example, demonstrate that future time horizons similarly affect younger and older consumers' responses. When primed to think about time as limited, both younger and older participants liked an advertised chocolate more when the ad focused on preventing losses (i.e., avoiding disease). When time was

primed as expansive, both younger and older participants found the advertised chocolate more appealing when the ad focused on promoting gains (i.e., enjoying life). That is, across these two age groups, future time horizons were shown to shape consumer responses.

An innovation of the current research, however, is that we suggest individuals' past and future thinking should be considered simultaneously: They likely interact to guide functioning behavior in daily life. For example, one of our recent studies (Bluck & Liao, in preparation) shows that individuals' emotional response to remembered life events is moderated by their FTP. The current research tests how the past and the future interactively contribute to behavioral intentions by examining how consumer response following nostalgic advertising is moderated by individuals' perceived FTP.

To examine this, we consider the goals that are related to the product being advertised. Past research shows that, regardless of product type, past-focused advertising elicits positive nostalgic feelings that in turn increase consumer preferences (e.g., Ju, Choi, Morris, Liao, & Bluck, 2016a; Ju, Kim, Chang, & Bluck, 2016b; Muehling, Sprott, & Sprott, 2004). We argue, however, that different product types may align with different goals from social selectivity theory (SST: Carstensen, Isaacowitz, & Charles, 1999; Carstensen, 2006), thus affecting the efficacy of nostalgic advertising. Specifically, the moderating effect of FTP should be different for products that represent SST goals when time is limited (i.e., camera: familiar, socially focused, emotionally meaningful) versus when it is extended (i.e., VR-One: novel, information-focused, entertainment).

## Mental Time Travel: How the Future Interacts with the Past

Mental time travel involves reflecting on the past and imagining the future (Suddendorf & Corballis, 2007; Tulving, 2002). Psychologists have long studied the views of individuals of these two time frames (Klein, 2013), but have usually studied either one (e.g., autobiographical memory; Conway & Holmes, 2004; Bluck & Liao, 2013; Koppel & Rubin, 2016) or the other (e.g., FTP, future goals; Peetz, Wilson, & Strahan, 2009). The same is true in the marketing literature (Pascal, Sprott, & Muehling, 2002; Martin, Gnoth, & Strong, 2009): Experiential marketing has either prompted people to nostalgically relive their glorious past or, in other ad campaigns, to imagine a bright future. In the flow of human experience, remembering the past occurs in tandem with thoughts about the future (e.g., *diachronicity*, Staudinger, Bluck, & Herzberg, 2003). The concept that individuals situate themselves in both past and future time frames has been gaining research interest (e.g., Berntsen & Bohn, 2010; Grysmann, Prabhakar, Anglin, & Hudson, 2013; Rutt & Löckenhoff,

2016). In line with that, the current research articulates how FTP (i.e., personal future) moderates the effects of ad-evoked nostalgia (i.e., personal past) on consumer responses.

## The Personal Past: Nostalgia

Feeling nostalgia affects an individual's attitudinal and behavioral intention. It is related to reports of reduced loneliness and enhanced self-regard, meaning in life, and self-continuity (Sedikides et al., 2017; Sedikides, Wildschut, Gaertner, Routledge, & Arndt, 2008; Wildschut et al., 2006; Zhou, Sedikides, Wildschut, & Gao, 2008). It also boosts optimistic thinking, creativity, and inspiration (Cheung, Sedikides, & Wildschut, 2016; Sedikides & Wildschut, 2016). In line with these findings, in the marketing literature, past-focused advertising has been shown to be more effective (i.e., compared to present-focused), including eliciting more favorable attitudes toward the advertisement itself and greater intent to purchase the product. Effects hold regardless of product type (e.g., camera: Ju et al., 2016a; camera, fragrance, and wine: Ju et al., 2016b; toothpaste: Muehling, Sportt, & Sultan, 2014; Disney products: Braun, Ellis, & Loftus, 2002; charity donations: Merchant, Ford, & Rose, 2011). Studies have clearly identified feelings of nostalgia as an important mechanism through which past-focused advertising is effective. Advertising that encourages time travel to the past and in doing so elicits nostalgia increases consumer preference for the advertised product. Building on the idea that nostalgia affects attitudinal and behavioral intentions (Sedikides & Wildschut, 2016; Sedikides et al., 2017; Sedikides, Wildschut, Gaertner, Routledge, & Arndt, 2008; Wildschut et al., 2006), the current studies expect nostalgia to be a pathway that enables past-focused advertising to elicit favorable consumer responses. Further, we explore the moderating role of FTP, with attention to different product types.

## FTP: Effects on Nostalgic Advertising

How might FTP interact with nostalgic feelings to affect consumer responses? While nostalgic advertising appears to be effective in increasing consumer preference regardless of product type, research suggests that FTP may moderate those effects differentially depending on the SST goals represented by different products.

SST research (Carstensen, 2006; Charles & Carstensen, 2010; English & Carstensen, 2015) has demonstrated that, when individuals perceive time as open-ended, they pursue goals that involve exploring novel ideas, seeking information, and activities that have less intimate meaning, such as mere entertainment. In contrast, when time is perceived as limited, individuals prioritize familiarity, social goals (e.g., spending time with close friends and family) and emotionally meaningful situations (Barber, Opitz, Martins, Sakaki, & Mather, 2016;

Fung & Carstensen, 2006; Lang & Carstensen, 2002; Löckenhoff, Reed, & Maresca, 2012). Again, consistencies are also held in the marketing literature. Having a more limited FTP is related to preference for more emotional and less knowledge-related advertising messages (Fung & Carstensen, 2003). For example, framing messages in terms of open FTP (i.e., because life is long) leads to greater practical product appeal (Williams & Drolet, 2005) whereas limited FTP messages (i.e., because life is short) increase appeal for emotional products. As in past research, we examine FTP as a continuous variable (i.e., not manipulated experimentally) showing how individual variations in FTP are related to constructs of interest (e.g., Tasdemir-Osdez et al., 2016; Korff et al., 2017).

Previous research indicates that nostalgia is multifaceted and can increase feelings of social support as well as promote motivation (Wildschut, Sedikides, Routledge, Arndt, & Corrado, 2010; Sedikides & Wildschut, 2016). As such, nostalgic advertising may be effective through different mechanisms in different situations. We propose that, when nostalgic advertising includes an emotionally meaningful product, advertising should be more effective with individuals who have a limited FTP. In contrast, when nostalgic advertising includes a knowledge-related product, advertising should be more effective with individuals who have a more open FTP

## Current Research and Hypotheses

Based on well-established research on FTP in relation to goal pursuit, we propose that the extent to which ad-evoked nostalgia affects consumer responses may depend on consumers' FTP. To test this, we designed two experimental studies building on previous research on nostalgic advertising (Ju et al., 2016a; Ju et al., 2017; Pascal et al., 2002). Each study focuses on a different product chosen to represent individuals' theoretical goals when time is limited or when time is open-ended (SST; Carstensen, 2006). In each study we first aimed to replicate past findings showing that past-focused advertising is more effective than present-focused advertising. We also aimed to demonstrate the mediating role of ad-evoked nostalgia on classic measures of consumer response (i.e., Study 1: purchase intent; Study 2: brand attitude) regardless of product type.

The most unique contribution, however, is the addition of FTP as a moderator that is expected to vary in its effects by product type. In Study 1, having a more limited FTP should strengthen the effects of ad-evoked nostalgia on consumer response to the product, a camera, because the product characteristics are congruent with SST goals when time is limited: The camera is a familiar product used to capture emotionally meaningful moments that can be shared socially. In contrast, in Study 2, holding a more limited FTP should weaken the effect of ad-evoked nostalgia on consumer response to a novel product, a VR-One, because the product characteristics are congruent with the goals of individuals who have an extended FTP (i.e.,

according to SST). This product is used individually for entertainment through exploring new virtual worlds (i.e., gaming, streaming videos) and gaining new knowledge. Hypothesis 1 and 2 aim to replicate previous studies. Hypotheses 3a and 3b are novel in that they examine FTP as a moderator of the effect of ad-evoked nostalgia on consumer preferences. The hypotheses are as follows:

- *H1*. Past-focused advertising will elicit more favorable consumer responses than present-focused advertising.
  - *H1a*. Past-focused advertising will elicit higher brand attitude than present-focused advertising.
  - *H1b*. Past-focused advertising will elicit higher purchase intent than present-focused advertising.
- *H2*. In both studies, the effect of advertising type (i.e., present vs. past-focused) on consumer response will be mediated by level of ad-evoked nostalgia.
- *H3*. The effect in H2 will be moderated by FTP differentially across the two studies due to different product types advertised (i.e., Study 1: camera; Study 2: VR-One). Specifically:
  - *H3a*. In Study 1, having a more limited FTP will strengthen the relationship between advertising-evoked nostalgia and favorable consumer response (to the camera).
  - *H3b*. In Study 2, having a more limited FTP will weaken the relationship between advertising-evoked nostalgia and favorable consumer response (to the VR-One).

## Study 1

### Method

#### Participants

Initially, 329 participants were recruited via Amazon Mechanical Turk (MTurk). Thereof, 41 participants who consented to begin the study and did not complete it were removed, leaving a gender-balanced American sample of middle-aged participants ( $N = 288$ ; 52% women; age range = 35–64;  $M_{\text{age}} = 49.06$ ;  $SD = 8.69$ ). The study focuses on middle-aged individuals because they are a strong segment of the consumer population (Nestleprofessional, 2017; V12data, 2016) for whom nostalgic advertising is relevant. Participants were Caucasian (84%), Asian American (7%), African American (4%), and other (5%). As is typical with Mechanical Turk, they received US\$0.50 for participation.

#### Study Design

To avoid repeated-exposure bias, a between-subjects design (i.e., past-focused vs. present-focused advertising) was employed. Purchase intent was the dependent variable representing consumer preference for the product, which was a camera. Previous studies reveal that consumers show the most favorable reactions to past-focused messages related to the period when



Figure 1. Example advertisements for past and present.

they were in their adolescence and early adulthood (Holbrook, 1993; Ju et al., 2016a). As such, this time period was used for the past-focused print advertising message in both Study 1 and Study 2. A present-focused advertisement was used as the comparison condition.

### Procedure

In the first step, we posted the recruiting announcement on MTurk consumer panel website. In that recruiting post, we note that this online survey is restricted to a particular age group (e.g., 35–44 years). In order to avoid multiple attempts, researchers create only one recruiting post. Participants are not allowed to take the survey multiple times within one recruiting post. In the recruiting post, we set a filter that only people in US can participate in the survey. After informed consent completion, participants were asked to report their age by typing exact age (e.g., 37) and also selecting an age range (e.g., ages 35–44). After age verification, participants completed the FTP measure and were randomly assigned to see either the past- or present-focused camera advertisement. Catered to the participant's current age, the design of the past-focused advertisement focused on when they were between 15 and 24 years old (i.e., adolescent-young adult years). The present-focused advertisement centered on the year 2016. Participants were asked to view the print advertisement closely. After viewing, they com-

pleted manipulation checks, a measure of ad-evoked nostalgia, and their consumer response to the advertised product. Demographic information (i.e., sex and ethnicity) was also collected.

### Materials

Print advertisements for the product were used to encourage participants to travel back to their past (i.e., when they were in their adolescent-young adult years) through use of images and titles of the most popular movies and songs from that particular past period or the present-focused advertisements. Our past research has verified the use of similar print advertisements in encouraging individuals to think back to their personal past (Ju et al., 2016a).

The past-focused advertisement focuses on the year when participants were between 15 and 24 years old. We created three versions of the past-focused advertisements for each study: Study 1 (camera) and Study 2 (VR-One). Participants were assigned to three different groups, 35–44 (1996), 45–54 (1986), and 55–64 (1976). Each participant was exposed only to the past-focused advertisement that related to the year when they were between 15 and 24 years of age. The movies and songs used in the advertisements were selected based on two popular culture databases, Box Office and Billboard. Examples of some top movies used in the past-focused ads are: from 1996, *Independence Day*, from 1986, *Crocodile Dundee*, and from

1976, *Rocky*. Examples of most popular songs include: from 1996, *The Macarena*, from 1986, *That's What Friends Are For*, and from 1976, *Don't Go Breaking My Heart*. An example of a past-focused advertisement and the present-focused advertisement appear in Figure 1.

### Major Variables

Measures assessed FTP, ad-evoked nostalgia, and consumer preference for the advertised product (i.e., camera). All were rated on 7-point scales (1 = *strongly disagree*; 7 = *strongly agree*). FTP (Carstensen & Lang, 1996; Rohr, John, Fung, & Lang, 2017) was measured using three items (Cronbach's  $\alpha = .88$ ): "I have the sense that time is running out." "There are only limited possibilities in my future." "As I get older, I begin to experience time as limited." We assessed the "focus-on-time" aspect of the FTP in the current work because perceived time left is the most direct aspect of time perspective, which is the variable of interest. The items were reverse coded for the analysis. Higher scores reflect a more extended FTP. In addition, we use FTP as a continuous variable. Creating high and low groups using a median split is not a useful approach for these data and some argue that, in general, creating groups from continuous data is ill-advised (McClelland et al., 2015). Ad-evoked nostalgia (Pascal et al., 2002) was measured using 8 items (Cronbach's  $\alpha = .98$ ). Example items are: "Brings back memories of good times from the past" and "Reminds me of the good old days." The consumer response assessed in this study was purchase intent (Putrevu & Lord, 1994), measured using 3 items: (Cronbach's  $\alpha = .97$ ). These are: "It is very likely that I will buy the brand" "I will purchase the advertised product next time" and "I will definitely try the advertised product." Factor loadings are presented in Table 1.

### Manipulation Checks

To ensure participants paid attention when they were exposed to the advertisement, they reported the year that was presented in the advertisement. Only three people failed to report the correct year and were removed from the study. In addition, to check that the two products used across Study 1 and 2 did represent SST goals regarding limited versus extended time perspective, a separate data collection focused on verifying this using an independent sample. This was also an opportunity to test overall preference toward the two products and show the strong interrelation of our two measures of product preference (i.e., brand attitude, purchase intent).

### Product Selection: Camera and VR-One

In order to verify that the camera and the VR-One matched with SST goal orientations corresponding to limited versus extended levels of FTP (camera and VR-One respectively), we presented these two products to a gender-balanced American sample through Amazon Mechanical Turk ( $N = 51$ ); 52.9% men; age range = 20–71;  $M_{age} = 31.29$ ;  $SD = 12.49$ ).

**Table 1.** Major measures with factor loadings and reliabilities

Constructs	Items	Study 1 Loading	Study 2 Loading
FTP	I have the sense that time is running out	.84	.86
	There are only limited possibilities in my future	.76	.81
	As I get older, I begin to experience time as limited	.92	.87
	(Carstensen & Lang, 1996)	$\alpha = .88$	$\alpha = .88$
		AVE = .71	AVE = .72
Ad-Evoked Nostalgia	Makes me reminisce about a previous time.	.89	.91
	Helps me recall pleasant memories.	.94	.93
	Makes me feel nostalgic.	.92	.94
	Is a pleasant reminder of the past.	.94	.96
	Evokes fond memories.	.96	.95
	Brings back memories of good times from the past.	.96	.98
	Reminds me of the good old days.	.97	.96
	Reminds me of good times in the past	.97	.96
	(Pascal, Spratt, & Muehling, 2002)	$\alpha = .98$	$\alpha = .99$
		AVE = .89	AVE = .90
Purchase Intention	It is very likely that I will buy the advertised product	.97	
	I will purchase the advertised product the next time	.97	
	I will definitely try the advertised product	.95	
	(Putrevu & Lord, 1994)	$\alpha = .97$	
		AVE = .93	
Brand Attitude	Bad/Good		.90
	No value for money/Value for money		.89
	Low quality/High quality		.92
	(Rosbergen, Pieters, & Wedel, 1997)		$\alpha = .93$
			AVE = .82

Note. Confirmatory factor analysis was conducted with FTP, Ad-Evoked Nostalgia, and Purchase Intent (Study 1); and with FTP, Ad-Evoked Nostalgia, and Brand Attitude (Study 2). AVE = average variance extracted; discriminant validity is supported following the Fornell-Larcker criterion (1981): square root of the AVEs for each construct ranged from .84 to .96, and they are greater than the correlations involving the constructs ( $r_s = -.08-.63$ ).

Participants responded to eight FTP product-matching questions on a semantic differential 7-point scale. A camera (1) was placed on the left side and VR-One (7) was placed on the right side. Paired *t*-tests were conducted using 4 as the midpoint. As expected, in line with SST, results showed that the camera was associated with motivations common to those with a limited FTP (i.e., more likely to use with close others, more familiar, create more intimacy). The VR-One was associated with motivations associated with an extended FTP (i.e., learn something new, have new experience). Items included: "Which product are you more likely to use when with your family or close

friends?" ( $M = 2.25$ ,  $SD = 1.77$ ,  $t(50) = -7.06$ ,  $p < .001$ ,  $d = -0.99$ ); "Which product are you most familiar and comfortable with?" ( $M = 2.02$ ,  $SD = 1.97$ ,  $t(50) = -8.36$ ,  $p = .001$ ,  $d = -1.01$ ); "Using which product with others would create more intimacy?" ( $M = 3.10$ ,  $SD = 2.02$ ,  $t(50) = -3.19$ ,  $p < .01$ ,  $d = .45$ ). "Which product is more likely to help you learn something new?" ( $M = 5.75$ ,  $SD = 1.35$ ,  $t(50) = 9.20$ ,  $p < .001$ ,  $d = 1.30$ ); "Which product provides a new experience?" ( $M = 6.24$ ,  $SD = 1.27$ ,  $t(50) = 12.53$ ,  $p = .001$ ,  $d = 1.76$ ); "Using which product would help you experience new things more?" ( $M = 5.76$ ,  $SD = 1.52$ ,  $t(50) = 8.30$ ,  $p = .001$ ,  $d = 1.16$ ).

In addition, we asked participants to consider each of the following (i.e., semantic differential-type 7-point scale). To me, the VR-One is: *No value for money* (1) – *High value for money* (7); *Bad* (1) – *Good* (7); *Low quality* (1) – *High quality* (7). We also asked, if they didn't already own these products, what their brand attitude and purchase intention would be (i.e., Likert-type, 7-point scale; *It is very likely that I would buy this product*; *I would purchase this product next time I need one*; *I would try this product*). These were measured to demonstrate that there were no overall differences in product preference (brand attitude  $\alpha = .92$ ; brand attitude  $\alpha = .92$ ; purchase intent  $\alpha = .89$ ; purchase intent  $\alpha = .83$ ). There were no differences on intent to purchase the two products (i.e., purchase intent,  $p = .90$ ; brand attitude,  $p = .82$ ). Purchase intent and brand attitude were highly related for both the camera ( $r = .77$ ,  $p < .001$ ) and the VR-One ( $r = .76$ ,  $p < .001$ ), indicating that the use of these different product preferences, used across the two studies, are highly similar.

## Results

Means and correlations for the major variables appear in Table 2. We hypothesized that past-focused advertising would generate a more favorable consumer response than present-focused advertising (H1). As expected, past-focused advertising ( $M = 3.4$ ,  $SD = 1.88$ ) elicited a more favorable consumer response than present-focused advertising ( $M = 2.82$ ,  $SD = 1.77$ ),  $t(286) = 2.71$ ,  $p < .01$ ,  $d = 0.318$ .

**Table 2.** Means, standard deviations, and bivariate correlations among variables of interest

Study 1	Range	Mean (SD)	Ad-Evoked Nostalgia	FTP
Ad-Evoked Nostalgia	1–7	3.97 (2.00)		
FTP	1–7	3.28 (1.52)	-.03	
Purchase Intent	1–7	3.10 (1.84)	.63**	-.09
Study 2				
Ad-Evoked Nostalgia	1–7	3.55 (2.00)		
FTP	1–7	3.49 (1.59)	-.08	
Brand Attitude	1–7	4.29 (1.50)	.51**	.05

Note. \*\* $p < .01$ ; FTP = Future time perspective, \*FTP items are reverse coded.

## Mediation Analyses

We tested (H2) whether ad-evoked nostalgia explains the relationship between nostalgic advertising (i.e., advertising type: past-focused = 1; present-focused = 0) and consumer response (i.e., purchase intent). We used the PROCESS macro (Hayes, 2012) with a nonparametric bootstrapping technique ( $N = 5000$ ). A 95% bootstrap confidence interval was employed to test the indirect effect of nostalgia on purchase intent. The overall mediation model was significant ( $R^2 = .46$ ,  $SE = 1.85$ ,  $F(2, 285) = 120.91$ ,  $p < .001$ ). As expected, the indirect effect of ad-evoked nostalgia was significant,  $B = 1.737$ ,  $SE = 0.170$ ,  $t(285) = 10.3$ , 95% CI [1.422, 2.097]. That is, seeing the past-focused advertisement (i.e., vs. present-focused) predicted greater ad-evoked nostalgia,  $B = 2.326$ ,  $SE = 0.192$ ,  $t(286) = 12.1$ ,  $p < .001$ , through which, purchase intent for the camera was increased,  $B = 0.747$ ,  $SE = 0.050$ ,  $t(285) = 15.12$ ,  $p < .001$ . The direct effect became negative,  $B = -1.155$ ,  $SE = 0.197$ ,  $t(285) = -5.85$ ,  $p < .01$ . This indicates that, when viewing past-focused ads that do not elicit nostalgia, such ads do not have an effect on purchase intent. In fact, in that case present-focused ads are more strongly related to purchase intent.

## Moderated-Mediation Analyses

A novel aspect of the research was to test whether FTP moderates the effect of ad-evoked nostalgia (i.e., feeling of nostalgia elicited by viewing the advertisement) on consumer response (H3). We used the same SPSS macro (Hayes, 2012) to test the moderated-mediation model. The overall model was significant,  $F(2, 283) = 62.45$ ,  $p < .001$ . The overall model explained 47% of the variance of purchase intent. Replicating the mediation analyses just presented, the indirect effect of nostalgia on purchase intent was significant (see Figure 2a and Table 3). That is, the advertisement focusing on the past (vs. the present) elicited greater nostalgia (1),  $t(286) = 12.1$ ,  $p < .001$ , which in turn predicted greater purchase intent ( $b_1$ ),  $t(283) = 9.76$ ,  $p < .001$ .

Also as expected (H3a), this indirect path was further moderated by FTP ( $b_3$ ),  $t(283) = -2.25$ , 95% CI [-.1073, -.0072]. Index of moderated mediation (Hayes, 2015) was significant,  $B = -0.133$ ,  $SE = 0.068$ , 95% CI [-0.27, -0.00]. As shown in Table 3 (i.e., Study 1: camera), though ad-evoked nostalgia was a consistent predictor of purchase intent, when time was perceived as more limited, nostalgia had the strongest positive effect on purchase intent for the socioemotionally meaningful product, a camera. When FTP was seen as more open, the association between ad-evoked nostalgia and intent to purchase the camera became weaker (see Figure 3a).

## Summary

The Study 1 findings support our hypotheses that past-focused advertising (i.e., as compared to present-focused) would lead to greater purchase intent, and that this effect would be partly due to the nostalgia individuals experience when they view past-fo-

**Table 3.** Coefficients for the conditional process model

Study 1: Camera					Outcome			
Antecedent	Coeff.	M (NOST)			Y (Purchase Intent)			
		SE	<i>p</i>	Coeff.	SE	<i>p</i>		
X (Ad Type)	<i>a</i>	2.326	0.192	< .001	<i>c'</i>	-1.136	0.200	< .001
M (Nostalgia)	-	-	-	-	<i>b</i> <sub>1</sub>	0.930	0.095	< .001
V (FTP)	-	-	-	-	<i>b</i> <sub>2</sub>	0.211	0.116	> .05
M × V	-	-	-	-	<i>b</i> <sub>3</sub>	-0.057	0.025	< .05
Constant		2.822	0.135	< .001		0.038	0.419	> .05
		<i>R</i> <sup>2</sup> = .339			<i>R</i> <sup>2</sup> = .469			
		<i>F</i> (1, 286) = 146.436			<i>F</i> (4, 283) = 62.445			
Study 2: VR-one					Outcome			
Antecedent	Coeff.	M (NOST)			Y (Brand Attitude)			
		SE	<i>p</i>	Coeff.	SE	<i>p</i>		
X (Ad type)	<i>a</i>	2.802	0.170	< .001	<i>c'</i>	-0.439	0.207	< .05
M(Nostalgia)	-	-	-	-	<i>b</i> <sub>1</sub>	0.742	0.115	< .001
V (FTP)	-	-	-	-	<i>b</i> <sub>2</sub>	0.193	0.087	< .05
M × V	-	-	-	-	<i>b</i> <sub>3</sub>	-0.054	0.022	< .05
Constant		2.207	0.118	< .001		3.429	0.340	< .001
		<i>R</i> <sup>2</sup> = .492			<i>R</i> <sup>2</sup> = .326			
		<i>F</i> (1, 281) = 271.747			<i>F</i> (4, 278) = 33.612			

Note. X = advertising type (i.e., past-focused = 1; present-focused = 0); M = ad-evoked nostalgia; V = future time perspective; Y = consumer preference (Study 1 = purchase Intent; Study 2 = brand Attitude).

cused advertising. Also, as expected (H3a), feelings of nostalgia interact with perspective on the future: having a more limited FTP strengthens the effects of nostalgia on intent to purchase the familiar product, a camera. These findings are congruent with SST (Carstensen et al., 1999), which suggests that when they perceive time is limited people's goals favor familiar, socially focused, emotionally meaningful goals. The goal of Study 2 was to replicate findings for H1 and H2, but most importantly to show that FTP acts differentially as a moderator of nostalgia (H3b) when the product represents goals consistent with a more open-ended FTP, a VR-One.

## Study 2

Study 2 methods and procedures are similar in most ways to Study 1. The major difference and indeed the focus of investigation lay on the moderated-mediation results, given that a different product is being advertised. Study 1, H3a results showed that having limited FTP increases the effect of nostalgia on consumer response to a camera (i.e., familiar item, socially focused, and emotionally meaningful). In Study 2, we hypothesized (H3b) the opposite effect for a VR-One. The VR-One is a novel and information-focused entertainment product. For example, online descriptions of the product describe it as having limitless possibilities to "take you to worlds of virtual and augmented

reality" so you can "experience VR games, videos, and amazing experiences that were never before possible" (www.vrone.us).

## Method

### Participants

Initially, 316 participants were recruited via Amazon Mechanical Turk. Thereof, 33 participants consented to begin the study and did not complete it were removed, leaving a set of middle-aged participants (*N* = 283; 64% women; age = 35–64; *M*<sub>age</sub> = 49.06, *SD* = 2.87. Participants were Caucasian (83%), Asian American (6%), African American (6%), and Other (5%). They received US\$0.50 for their participation.

### Design and Procedure

Study 2 follows the exact design and procedure described in Study 1 so is not further described here. There are two differences: The product in Study 2 is a VR-One whereas in Study 1 it was a camera. Consumer response in Study 1 was assessed as purchase intent whereas in Study 2 it is assessed as attitude toward the brand.

### Materials

The past- and present-focused advertisements were similar to those used in Study 1 but featured a VR-One instead of a camera (see Figure 1).

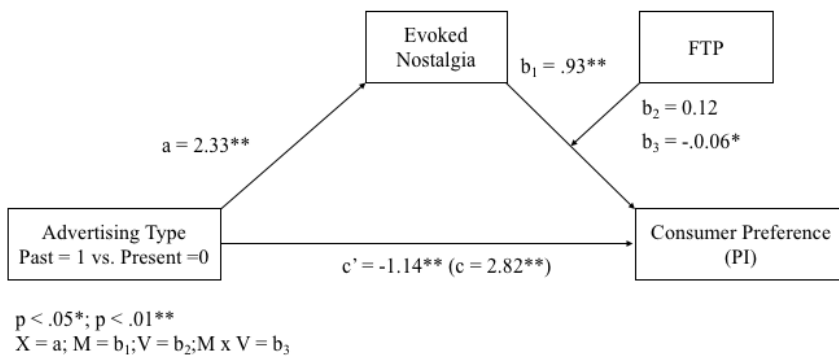


Figure 2a. Moderated mediation model (Study 1).

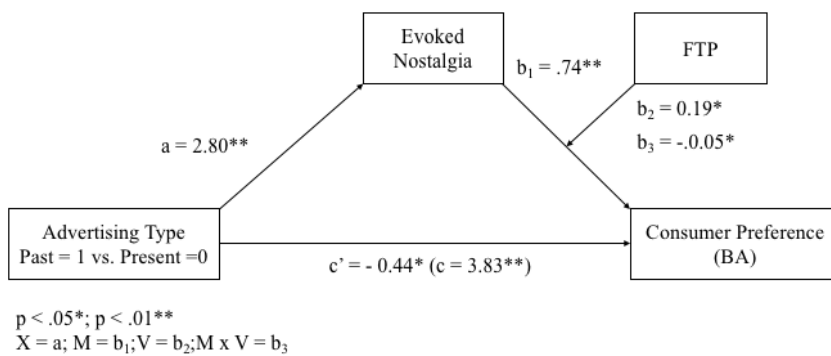


Figure 2b. Moderated mediation model (Study 2).

**Major Variables**

FTP and ad-evoked nostalgia were assessed as in Study 1. Reliabilities for the current study are: FTP (Cronbach’s  $\alpha = .88$ ) and ad-evoked nostalgia (Cronbach’s  $\alpha = .99$ ). Consumer response in Study 2 was assessed as brand attitude (Rosbergen, Pieters, & Wedel, 1997) using 3 items (Cronbach’s  $\alpha = .93$ ). Participants make ratings on 7-point semantic differential scales indicating the extent to which they feel the brand is: *good/bad*, *low quality/high quality*, and *value for money/no value for money*. This measure of consumer response is highly correlated ( $r = .73$ ) with purchase intent such that they can be used interchangeably (e.g., Kaushal & Kumar, 2016; Spears & Singh, 2004).

**Manipulation Check**

As in Study 1, to ensure participants paid attention to the advertisement they were exposed to, they reported the year presented in the advertisement. Six people failed to report the correct year and were removed from further analyses.

**Results**

As expected, Hypothesis 1 was supported. People showed more favorable consumer response (i.e., brand attitude) when exposed to past-focused advertising ( $M = 4.77$ ,  $SD = 1.36$ ) than

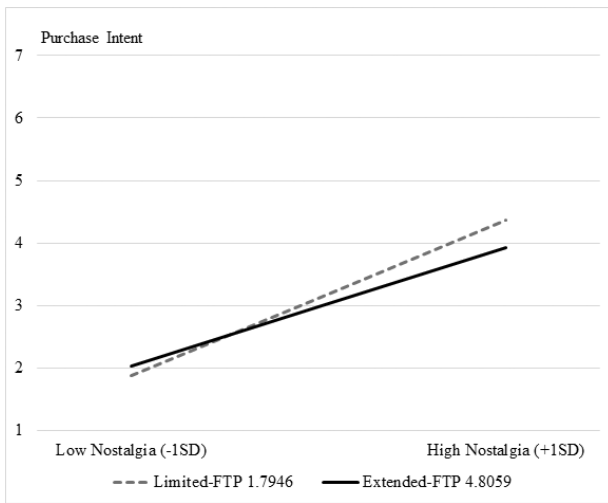
to present-focused advertising ( $M = 3.84$ ,  $SD = 1.48$ ),  $t(281) = 5.53$ ,  $p < .001$ ,  $d = .065$ .

**Mediation Analyses**

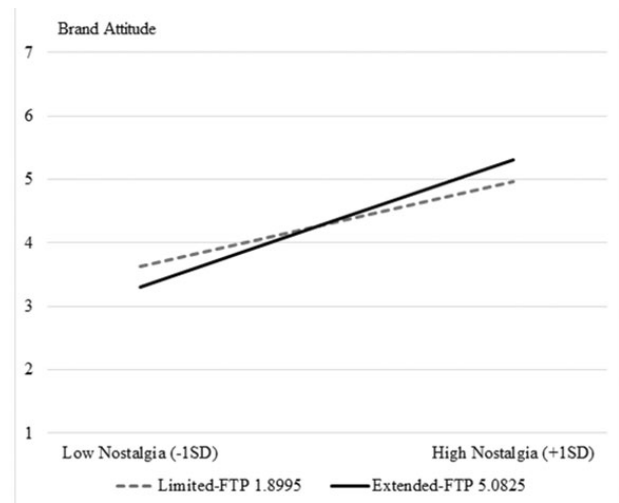
To test H2, mediation analysis was conducted to test whether ad-evoked nostalgia helped explain the relationship between type of advertising (i.e., past-focused = 1; present-focused = 0) and consumer response, in this case, brand attitude. The overall mediation model was significant ( $R^2 = .31$ ,  $SE = 1.55$ ,  $F(2, 280) = 63.01$ ,  $p < .001$ ). As predicted, and replicating Study 1, past-focused advertising elicited greater nostalgia than present-focused advertising, and the elicited nostalgia positively influenced brand attitude. There was an indirect effect of ad-evoked nostalgia,  $B = 1.354$ ,  $SE = 0.167$ , 95% CI [1.041, 1.700]. That is, past-focused advertising (i.e., compared to present-focused) predicted greater ad-evoked nostalgia,  $B = 2.802$ ,  $SE = 0.17$ ,  $t(281) = 16.484$ ,  $p < .001$ , and the elicited nostalgia is positively related to brand attitude for the VR-One,  $B = 0.483$ ,  $SE = 0.052$ ,  $t(281) = 9.286$ ,  $p < .001$ . As in Study 1, the direct effect was in a negative direction,  $B = -0.418$ ,  $SE = 0.208$ ,  $t(280) = -2.012$ ,  $p < .05$ .

**Moderated-Mediation Analyses**

Addressing the final hypothesis (H3b), we tested the moderating effect of FTP on the relation between ad-evoked nostalgia and consumer response for the VR-One (past-focused ad = 1 vs. present-focused ad = 0). The overall model was significant,  $F(2, 278)$



**Figure 3a.** Moderating effects of FTP on the relation of ad-evoked nostalgia to purchase intent (camera).



**Figure 3b.** moderating effects of FTP on the relation of ad-evoked nostalgia to brand attitude (VR-One).

= 33.61,  $p < .001$ . The overall model explained 33% of the variance of purchase intent. Past-focused advertising, as compared to present, predicted greater nostalgia (1),  $t(281) = 16.485$ , and this ad-evoked nostalgia ( $b_1$ ) predicted more favorable brand attitude toward the product,  $t(278) = 3.462$ ,  $p < .001$ . FTP negatively predicted brand attitude ( $b_2$ ),  $t(278) = -2.216$ ,  $p < .05$ . FTP interacted with ad-evoked nostalgia ( $b_3$ ),  $t(278) = -2.53$ , 95% CI[0.012, 0.097]; index of moderated mediation = .1534,  $SE = 0.0595$ , 95% CI[.04, .27] (see Figure 2b and Table 3). As expected, this moderation effect was a reverse of that found when the advertised product was a camera (i.e., Study 1). As shown in Table 4 (i.e., Study 2: VR-one), nostalgia was a predictor of brand attitude, but FTP moderated its effect. The more that future time was perceived as limited, the weaker the relation of ad-evoked nostalgia to brand attitude for the VR-One. Thus, FTP again moderated the indirect path of nostalgia between advertising type and con-

sumer response, but in the opposite direction when the product was a VR-One than when it was a camera.

### Summary

Study 2 replicates Study 1 findings, showing the effect of nostalgic advertising (H1) and explaining the role of nostalgia in bridging past-focused versus present-focused advertising and consumer response (H2). Beyond providing new evidence for the effectiveness of nostalgic advertising, Study 2 results are in line with SST and our expectations, indicating that the type of product being advertised is important to how FTP moderates the effects of nostalgia on consumer responses. Effectiveness of past-focused, nostalgic advertising for the VR-One (i.e., novel item, information-focused, entertainment) is lower when FTP is seen as limited.<sup>1</sup>

**Table 4.** Conditional effects of ad-evoked nostalgia on consumer response through FTP

Conditional indirect effects of X on Y			
FTP	Coeff.	SE	95%CI
Study 1: Camera			
Limited (-1 SD)	1.919	.204	[1.541, 2.344]
Average (Mean)	1.716	.168	[1.404, 2.071]
Unlimited (+1 SD)	1.514	.193	[1.161, 1.926]
Study 2: VR-one			
Limited (-1 SD)	1.142	.180	[0.800, 1.505]
Average (Mean)	1.386	.171	[1.067, 1.734]
Unlimited (+1 SD)	1.631	.212	[1.225, 2.061]

Note. X = ad-evoked nostalgia; Y = consumer preference (Study 1 = purchase intent; Study 2 = brand attitude).

### General Discussion

This interdisciplinary research (i.e., advertising, psychology) is in line with the goals of this special issue on the antecedents, correlates, and consequences of FTP. We contribute by examining a particular lifestyle decision: How to spend one’s money. Study participants were middle-aged adults, a time in the lifespan when past and future time horizons are salient (Neugarten, 1973). The human mind shifts fluidly between remembering the past, being in the present, and considering the future. Such mental time travel has been shown to affect psychological functioning and behavioral intentions in a variety of domains

<sup>1</sup> To assess whether moderating effects of FTP were actually due to participants chronological age, analyses were re-run with age as a potential moderator of the effect of ad-evoked nostalgia on consumer preferences. Results show that age did not moderate relations between ad-evoked nostalgia and consumer preference for the camera (Study 1) or the VR-One (Study 2), respectively,  $t(283) = -0.40$ ,  $p = .69$ ;  $t(278) = -0.59$ ,  $p = .55$ .

(e.g., money-saving behavior: Hershfield et al., 2011; healthy lifestyle choices: Tasdemir-Ozdes et al., 2016; positive affect and self-regard: Wildschut et al., 2006). Studying behavioral intentions is a common practice in marketing research; intentions act as good predictors for actual behaviors (e.g., Bolton, 1998; Jamieson & Bass, 1989; Sheppard, Hartwick, & Warshaw, 1988; Chandon, Morwitz, & Reinartz, 2005). Our research extends past literature by demonstrating that feeling nostalgic about the past interacts with FTP in motivating middle-aged consumers responses to advertising. The findings reveal that seeing the future as limited can make nostalgia a more potent human emotion for advertising – particularly with products that represent socially focused, emotionally meaningful goals.

Congruent with previous research with other age groups (e.g., Ju et al., 2017; Pascal et al., 2002), past-focused advertising was associated with more favorable consumer responses across both studies. That effect was shown to be partly due to the ability of such ads to elicit nostalgia for days gone by. In line with tenets of SST (Carstensen et al., 1999), FTP moderated effects of ad-evoked nostalgia but acted differentially dependent on product type (camera: familiar, socially focused, emotionally meaningful vs. VR-One: novel, information-focused, entertaining). Feeling nostalgic was related to more positive consumer responses to a familiar, socially focused, emotionally meaningful product – particularly when future time was experienced as limited. The effects of nostalgia when viewing an advertisement for a novel, information-focused, entertainment product, however, showed a less favorable consumer response when future perspective was limited. Findings are discussed in further detail below.

## Past-Focused Advertising, Nostalgia, and Consumer Responses

Encouraging people to look back positively, with nostalgia, on a past life period has been shown to generate favorable consumer views on a variety of products including both hedonistic-oriented (e.g., fragrance, wine, restaurants; Ju et al., 2016b) and utilitarian-oriented products (e.g., toothpaste; Muehling et al., 2014). The current studies provide additional evidence for this line of experiential marketing research. Our findings show that past-focused (vs. present-focused) advertising elicits favorable consumer response from middle-aged participants for both a camera and a VR-one, and that ad-evoked nostalgia plays a key role in this effect.

Nostalgic advertising that guides individuals to think about their younger days (i.e., adolescent-young adult years) appears to be an effective type of experiential marketing (Chen et al., 2014; Ju et al., 2016b). Although nostalgia is sometimes thought to be bittersweet, as the past cannot be lived again, marketers can – as was done in the current research – design advertisements to ensure that positive emotions override any negative

ones (Hepper, Ritchie, Sedikides, & Wildschut, 2012). Our findings agree with a growing line of research suggesting that past-focused (vs. present-focused) advertising can be used to create favorable consumer response in a variety of age groups and across a range of product types (Braun et al., 2002; Pascal et al., 2002). This generalizability of the effects of nostalgic advertising is of course useful: Campaigns for a variety of products can consider using nostalgic advertising as one part of their marketing initiative to promote their brands.

Note that, in the current study, individuals thought back to and felt nostalgia for the particular life period cued by the advertisement: their late adolescence-early adulthood. This period has been demonstrated as one that is preferentially recalled in midlife and later life (i.e., *reminiscence bump*; Koppel & Rubin, 2016). It is rich in positive memories that are seen as central to building a life story (at least in retrospect; Glück & Bluck, 2007): Individuals look back to the time when they were beginning their adult trajectory in terms of finding a partner and developing a career. As shown in Ju et al. (2016a), remembering this life phase may be particularly likely to evoke nostalgia because it represents a developmental period when individuals are highly engaged with popular culture (i.e., movies, music, news; Sehulster, 1996). In terms of marketing implications, we suggest that past-focused advertising featuring the recent past or individuals' very early childhood may not elicit the same level of nostalgia and thereby not show the same positive effects on consumer response as those found in the current research.

One minor finding, not part of our set of hypotheses, was also intriguing: Although past-focused advertising tends to elicit nostalgia, our results showed that when it did not, present-focused advertising was not only equally effective but in fact better than past-focused ads. To avoid unsuccessful nostalgic advertising campaigns, marketing practitioners may want to make sure they develop messages and visuals that clearly evoke nostalgia in their target audience.

## FTP Moderates Effects of Nostalgic Advertising

Beyond providing support for the general utility of nostalgic advertising, this research refines our understanding of when such advertising should work best. That is, the findings identify FTP as an important player in the link between ad-evoked nostalgia and consumer response. Across the two studies, we observed that the openness of consumers' perspective on future time affects just how successful nostalgia is at promoting positive consumer response (see also Fung & Carstensen, 2003; Williams & Drolet, 2005). This makes theoretical and intuitive sense. Nostalgia creates a positive feeling toward the advertised product (Ju et al., 2016a; 2016b). Whenever individuals buy a product, however, they are by definition intending to use it in future. The product thereby represents a goal or desire waiting to be fulfilled. As such, feeling that the product fits with their

goals in terms of both their past and future time horizons, make the product most suitable for the consumer.

Developmental psychologists have long considered how individuals move through time, with the personal past expanding and potential future shrinking as they age (e.g., Carstensen et al., 1999; Jung, 1933). Note that individuals can, however, regardless of their age, be primed to perceive themselves as having a limited or an expansive future (Carstensen, 2006). Without priming, individuals normatively become more keenly aware of life's finitude in late midlife (Strough et al., 2016). That is, particularly in midlife, individuals' perception of their future time horizon shows variability as an interindividual characteristic. While viewing nostalgic advertising, taking them back to their youth had an overall positive effect, this was tempered by individual differences in FTP as related to different products. As such, future research should examine the extent to which such findings hold for those in young-old and old-old groups who generally have a relatively diminished sense of FTP.

This view of humans as moving through time, influenced simultaneously by their past and future, is new to the marketing world (Kuppelwieser, 2016). Marketing firms may be well advised to conceptualize consumers as not just living in the present, but affected by how they see their own past and envision their future (Staudinger et al., 2003) at different points in their lifespan. For example, nostalgic ads that cue the idea that time is precious may be more attractive for older than younger consumers; embedding messages of an unlimited future ahead in nostalgic advertising may appeal more to younger than older consumers. Our findings suggest that advertising campaigns should take consumer's FTP into account if they are to create maximally successful nostalgic advertising campaigns.

## SST: Moderation Effects Depend on Product Type

SST has demonstrated its utility in psychology (e.g., Carstensen, 2006; Charles & Carstensen, 2010; English & Carstensen, 2015): Open-ended FTP has been related to pursuing knowledge-related goals, career planning, and seeking new social partners, while holding a more limited FTP is associated with emotion-related goals, emotion regulation, and engagement in familiar and gratifying social interactions. Our findings are consistent with the pattern of findings in previous FTP research guided by SST – but also demonstrate how that theory should be recognized in a new area, the marketing industry (see also Fung & Carstensen, 2003; Micu & Chowdury, 2010). While the effects of nostalgia on consumer responses hold for two distinct products, the effects of FTP in moderating those effects follow SST tenets. Having limited FTP strengthens the relationship between ad-evoked nostalgia and consumer response when the product is a camera (i.e., familiar, socially focused, emotionally meaningful). In contrast, having a more limited FTP weakens the relationship between ad-evoked

nostalgia and consumer response for a VR-One (i.e., novel, information-focused, entertaining).

When replicated further, these findings suggest advertisers consider how particular products help to meet individuals' socioemotional goals. Currently, marketers categorize products in a variety of ways, such as hedonistic (e.g., focusing on emotional value) versus utilitarian (e.g., focusing on function; Kivetz & Zheng, 2017) or just-launched versus mature, long-lived products (Bartlett & Twineham, 2013). Marketing managers might move beyond those categorizations to consider innate psychological characteristics of products (e.g., familiar vs. innovative, emotionally fulfilling vs. entertaining). That is, in creating brand images, marketing teams may benefit by understanding that consumers are affected by SST-related goals such as level of emotion and meaning versus focus knowledge or entertainment envisioned from owning the product. For example, our research can be extended to suggest that advertising that primes limited FTP may be beneficial when nostalgia is being used to advertise familiar, socially focused, emotionally meaningful products (e.g., not only cameras but coffee, soup, or seasonal holiday products). Priming the idea that one has an open-ended future time should be more successful for nostalgic advertising that aims to promote novel, information-focused products used for learning or entertainment (e.g., VR-One, but also electronic cars, drones, and home robots). However, marketers also need to keep in mind that FTP in this study focuses on "time left." We speculate that the other subcomponents of the FTP construct, such as "life" and "opportunities" would be less effective because they do not directly assess perceived time.

## Limitations

This research has several limitations. First, we did not measure actual consumer behavior, but rather relied on reports of preferences and behavioral intentions. Factors can clearly intervene between a consumer's intent to purchase and the actual exchange of goods for cash. That said, our methods are in line with much advertising research that commonly relies on self-report assessments of consumer attitudes. Second, this study includes a single product in each study to represent theoretical SST goals when time is perceived as more open or more limited. Having multiple products in each study, and both novel and familiar products within a given study, would be useful in further replicating the results. Third, the two studies used different consumer responses as dependent variables. Although we demonstrate that brand attitude and purchase intent are highly correlated (also see Kaushal & Kumar, 2016; Spears & Singh, 2004), making them practically interchangeable, measuring each of these responses across both studies would have been ideal. Fourth, conducting research online has limitations. For example, whether participants already own the products (a camera or VR-One) was not controlled for, and we cannot ensure that participants in Study 1 did not also participate in

Study 2. Finally, this study only includes individuals in midlife (i.e., 35–64) limiting the application of these findings in marketing to that age segment of consumers. Future research might examine how early in adulthood individuals begin to respond to nostalgic advertising (i.e., feel they have a past to look back on) and how adults who are young-old or old-old might differ from the midlifers studied here.

## Conclusion

In keeping with our view of humans as not simply living in the present moment but engaged in mental time travel, we found that the past and future interact to influence consumer responses to advertising. FTP plays an important role in the effectiveness of nostalgic advertising and draws attention to the psychological meaning of different products that marketers may want to promote. This research suggests that experiential marketing campaigns might be wise to move away from a focus on either the past or the future to embrace the broad temporal scope of human mental activity. This includes simultaneous consideration of how consumer preferences are affected by looking back at life, while keeping an eye on the future.

## Declaration of Conflicts of Interest

The authors declare that no conflicts of interest exist.

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