# Creating Nostalgic Advertising Based on the Reminiscence Bump: Diachronic Relevance and Purchase Intent

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Summary: Nostalgic advertising uses images relevant to past periods in individuals' lives to market products. The current study examines the reminiscence bump in a new context: reactions to nostalgic advertising. We examine diachronic relevance and its influence on purchase intent using a 3 (time frame: bump advertisements, non-bump past advertisements, present-focused advertisements) × 2 (age group: Generation X, late-stage baby boomers) between-subject design. Results show that advertisements for a fictional camera brand (i.e., Optimax) that focus on a bump year (i.e., 15–24 years) have more diachronic relevance than advertisements from either a non-bump past year or present-focused advertisements. In addition, advertisements focused on bump years elicit greater intent to purchase the advertised product than non-bump past and present-focused advertisements. Analyses show that intent to purchase the product is fully mediated by diachronic relevance of the bump-year advertisement. These effects hold across both age groups. Copyright © 2016 John Wiley & Sons, Ltd.

Marketing researchers have recently become interested in memory for the personal past. Particularly, nostalgic advertising has been used to sell a variety of products (e. g., Jack Daniels, Microsoft Windows, Sony; ADWEEK, 2013). Nostalgic marketing aims to elicit positive feelings and focuses on a variety of past life phases (Holbrook & Schindler, 1989; Muehling, Sprott, & Sultan, 2014). None of this marketing research, however, specifies which part of one's personal past might be most relevant. Is there a specific past life phase that is particularly likely to elicit positive reactions from individuals?

Research in cognitive psychology suggests there may be. It is well established that people show a single *reminiscence bump* (Rubin, Rahhal, & Poon, 1998) when looking back on life. Recent findings suggest different bump periods depending on the cueing technique (Koppel & Berntsen, 2015). The bump generally holds for memories that individuals rate as positive (Berntsen & Rubin, 2004; c.f., Alea, Ali, & Marcano, 2014) and that are rated higher on perceived control and influence on later life (Glück & Bluck, 2007). As such, we argue that bump memories are likely to evoke stronger reactions as compared with other periods in one's past and are a good candidate for use in nostalgic advertising.

It is unclear whether nostalgic advertising should be equally effective across adulthood, particularly in younger adults. Classic developmental theorists (e.g., Neugarten, 1973) suggest that it is in midlife that individuals begin to look back at life. Marketers, however, hope to influence both baby boomers, and a younger group, Generation X: both have considerable purchase power. The present study examines whether reminiscence bumpfocused advertising (i.e., compared with non-bump past and present-focused) elicits more favorable reactions and better marketing outcomes across these two adult age groups.

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# THE PERSONAL PAST IN THE WORLD OF MARKETING: NOSTALGIA IN ADVERTISING

Nostalgia is conceptualized as a preference toward objects that were more common when one was younger (Holbrook & Schindler, 1991). Individuals have feelings about objects that trigger personal memories (Belk, 1990); positive emotions are elicited by remembering (Hepper, Ritchie, Sedikides, & Wildschut, 2012). Although nostalgia can sometimes be bittersweet (Dickinson & Erben, 2006), nostalgic memories focus largely on positive emotion (Hepper et al., 2012). Nostalgic advertising thus uses past music, people, or events to evoke positive reactions (Pascal, Sprott, & Muehling, 2002). Nostalgic advertisements elicit positive emotion, and more favorable attitudes toward the advertisement and the advertised brand (e.g., Muehling & Sprott, 2004; Muehling et al., 2014). Holbrook and Schindler (1989) provide evidence that certain parts of the past may be most effective. Participants across adulthood show an inverted-U pattern of preference for old music with the peak being music from when the participant was 24 years old. Those findings suggest there may be particular periods in one's past that are preferentially useful for nostalgic advertising.

# THE REMINISCENCE BUMP: A PREFERENTIAL PERIOD?

Age frequency distributions show that individuals more often recall personal events from the bump years (Rubin *et al.*, 1998). Memories from the reminiscence bump period also reflect that this is a time of transition: events from the bump years are higher in perceived control and perceived influence on life development (Glück & Bluck, 2007). In addition, a recent study showed that favorite movies, songs, and books were most frequently recalled from an early bump period, between 11–25 years old (Janssen, Chessa, & Murre, 2007). This fits with research showing that the bump year differs according to elicitation method: the word cue technique shows an earlier bump (i.e., 8–22 years old) than asking for "most important events" (i.e., later bump; 15–28 years old; Koppel & Berntsen, 2015). Memories in bump years overall are more likely to be

positive (Berntsen & Rubin, 2004; Glück & Bluck, 2007), but a recent study also showed that the word cue technique evokes both positive and negative events in the early bump (Alea *et al.*, 2014). As such, we study the early bump period (i.e., 15–24) in the current research.

# THE USE OF NOSTALGIA IN ADVERTISING: LINKING TO THE REMINISCENCE BUMP

Past research suggests that advertisements that evoke positive feelings are effective (e.g., Batra & Ray, 1986). Advertisements focused on the bump period (i.e., generally associated with positive emotion) should be distinctly effective in eliciting favorable views of the advertised product. No current research, to our knowledge, compares the effectiveness of nostalgic advertising in terms of its focus on different parts of the personal past (i.e., memories from the bump period *vs.* other past periods). Thus, the present study examines reactions to advertisements focused on the early reminiscence bump period compared with years outside of that, but still in one's past, as well as to present-focused advertising.

#### LOOKING BACK: DOES CURRENT AGE MATTER?

Developmental theorists suggest that it is in midlife that individuals first begin to seriously reflect on their past (e.g., Neugarten & Datan, 1974). They develop a keener sense of time lived and time left to live (e.g., Erikson, 1959). Despite these claims, reminiscence bump effects are not more pronounced for older individuals (Janssen, Chessa, & Murre, 2005; Kawasaki, Janssen, & Inoue, 2011). Given the theoretical potential for bump-focused advertising to be salient only for those in midlife and beyond, however, this study collected data from late-stage baby boomers and Generation Xers (Gen X). Both of these groups are of interest to marketers due to their purchasing power (Horovitz, 2010; Yu & Miller, 2005).

### THE CURRENT STUDY: HYPOTHESES

In a between-groups design, Gen X and late-stage baby boomers viewed and rated their reactions to advertisements for a fictional product (i.e., an Optimax camera). Advertisements focused on one of three time frames (i.e., reminiscence bump past, non-bump past, and present). Dependent variables included diachronic relevance, an indicator of participants' personal reaction to the ad, as well as a marketing-related variable, intent to purchase the product. The hypotheses are as follows:

H1a. Across age groups, reminiscence bump-focused advertisements are expected to elicit greater diachronic relevance than present-focused advertisements but also as compared with non-bump past advertisements.

H1b. Effects described in H1a are expected to interact with age group such that effects are in the same direction but stronger for late-stage boomers than for the Gen X group.

H2a. Across age groups, reminiscence bump advertisements are expected to elicit higher purchase intent than present-focused advertisements but also as compared with non-bump past advertisements.

H2b. Effects described in H2a are expected to interact with age group such that effects are in the same direction but are stronger for late-stage boomers than for those in the Gen X group.

H3. The relation between time frame conditions (i.e., bump *versus* non-bump past, bump *versus* present) and purchase intent are expected to be fully mediated by participants' ratings of diachronic relevance of advertisements regardless of age.

#### **METHOD**

### **Participants**

Participants (N=168) were sampled to represent two age cohorts (N=89 Gen X; N=79 boomers). The mean age for Gen X was 33.28 (SD = 2.52), and for the late-stage boomers was 53.47 (SD = 2.36). The birth-year ranges for the two age groups were, overall, 1955–1964 (i.e., current age 50–59) for late-stage boomers; 1975-1984 (i.e., current age 30-39) for Gen X. Specifically, in the non-bump past conditions, the birth-year range was 1955-1963 (i.e., current age 51-59) and 1975-1983 (i.e., current age 31-39). This ensured those in the non-bump condition were cued to think back to when they were at least 26 years old (i.e., 1989 or 2009). More males (Gen X = 61.8%, boomers = 62.0%) participated than females (Gen X = 38.2%, boomers = 38.0%). The sample was largely Caucasian (55%) and Asian-American (32.50%). The study was conducted through Amazon Mechanical Turk (MTurk).

## Study design

A 3 (advertisement time frame: reminiscence bump, non-bump past, present) × 2 (age group: Gen X, late-stage boomers) between-participants design was employed. The between-participants design was used to avoid biases related to repeated exposure. Dependent variables assessed responses to the advertisements.

### Materials

Three advertisements for each age group were created. For the bump condition, participants looked at an advertisement focused on when they were 15 to 24 years old (i.e., 1979=late-stage boomers; 1999=Gen X). For the non-bump past condition, participants looked at an advertisement focused on when they were 26 to 34 years old. The present-focused condition gave the year 2014. That is, late-stage boomers viewed advertisements either focused on 1979 (i.e., bump) or 1989 (i.e., non-bump past), and Gen Xers viewed advertisements focused on 1999 (i.e., bump) or 2009 (i.e., non-bump past). There was an advertisement focused on the present year, 2014 as a control condition. The ad for each given year

featured the most popular movie (i.e., 1979 = Kramer vs. Kramer, 1989 = Batman, 1999 = Star Wars: Episode I, 2009 = Avatar, 2014 = The Lego Movie) and the most popular song (i.e., 1979 = My Sharona by The Knack, 1989 = Look Away by Chicago, 1999 = Believe by Cher, 2009 = Boom Boom Pow by The Black Eyed Peas, 2014=Happy by Pharrell Williams) as chosen via databases, Box Office (http://www.leesmovieinfo.net/) and Billboard (http://www.bobborst.com/). The text of the advertisements encouraged viewers to think back to where they were in that year. Other than that, the advertisements were exactly the same. They showed a black and white picture of a forest and a fictitious camera brand name, Optimax. The control condition advertisement (i.e., the present year, 2014) also featured the most popular movie and song from that year but the text encouraged viewers to think about the present. Examples of advertisements appear in Figure 1.

#### **Procedures**

Age was used to filter participants into the appropriate condition. Within age group, participants were exposed for 7 seconds to one of the advertisements. Immediately following exposure, as a manipulation check, they reported the year of

the advertisement they had viewed. They then completed questionnaires assessing the diachronic relevance of the advertisement and their intent to purchase the product. Participants also reported gender and ethnicity.

#### **Measures**

The measures are described in the succeeding text in the order they were administered. They include variables forming an index of diachronic relevance of the advertisements to the participant, participants' purchase intent, and manipulation checks.

Diachronic relevance of the advertisement was measured with eight items. As described here, the items formed an index for use in major analyses. It represents participants reactions regarding the relevance of the ad in relation to the past (i.e., positive nostalgia) and the present (i.e., current attention and personal relevance). Nostalgia was measured by three items on 7–point Likert-type scales where 1 = Strongly Disagree and 7 = Strongly Agree. Items include: "Viewing the advertisement makes me feel good about a previous time," "Viewing the advertisement is a pleasant reminder of a time from my youth" (Muehling & Pascal, 2012), and "The ad reminds me of good times in the past" (Pascal *et al.*, 2002). The extent to which the advertisement captures



Figure 1. Examples of advertisements

one's attention (Yoo & Kim, 2005) was measured by two items on Likert-type scales where 1=Strongly Disagree and 7=Strongly Agree. The items were "I find the ad is eye-catching" and "I find the ad captures my attention". Personal relevance was assessed using three items on Likert-type scales where 1=Strongly Disagree and 7=Strongly Agree. The items were "I find the ad is related to my personal interests", "I find the ad is related to personal interests relevant to me", and "I find the ad is related to personal interests of concern to me" (Wells, Leavitt, & McConville, 1971).

To create the diachronic relevance<sup>1</sup> index, an exploratory factor analysis with orthogonal rotation (varimax) was conducted. The Kaiser-Meyer-Olkin test verified the sampling adequacy, KMO=.91. The index is comprised of items loading higher than .5 on the factor and less than .4 on any other factor. All eight items were satisfactory, with loadings ranging from .82 to .91. Bartlett's test of sphericity  $\chi^2$  (28)=1430.590, p < .001, indicated that item intercorrelation was sufficient for principal component analysis (PCA). One single factor explained 76.14% of the variance. The index had high inter-item reliability; Cronbach's  $\alpha$ =.96.

Intent to purchase the product was measured by three items on Likert-type scales where 1 = Strongly Disagree and 7 = Strongly Agree. They were "It is very likely that I will buy the brand", "I will purchase the brand next time I need a product", and "I will definitely try the brand" (Putrevu & Lord, 1994). Internal consistency was high; Cronbach's  $\alpha = .97$ .

Manipulation checks included having the participant (1) provide the year of the advertisement they just viewed, and (2) indicate whether it made them focus on their past (i.e., to differentiate both past from the present-focused advertisement). The questions were "What year was indicated in the ad?" and "The ad reminds me of the past" (7–point Likert-type scales, 1 = Strongly Disagree and 7 = Strongly Agree; Pascal *et al.*, 2002).

## **RESULTS**

### Preliminary analyses

Preliminary analyses included manipulation checks for the year of the advertisement and the time frame condition. Less than five people in each condition (total=15) incorrectly named the year featured in the advertisement, and those who did were excluded from the study. Extent of past focus was also tested: the two past time frame advertisements were expected to differ from the present-focused one. The results showed greater past focus for the bump advertisement (M=4.90, SD=1.74) than the present advertisement (M=3.35, SD=1.96), t(116)=4.54, p < .001, d=0.83, and for the non-bump past advertisement <math>(M=4.82, SD=1.84) than the present advertisement (M=3.35, SD=1.96), t(106)=4.14, p < .001, d=0.77. The manipulation checks

show that participants attended to the time frame of the advertisements.

#### Main analyses

The first hypothesis (H1a, H1b) was that reminiscence bump-focused advertisements would elicit more diachronic relevance than present or non-bump past advertisements and that this effect would be stronger for boomers than the Gen X group. A two-way analysis of variance showed a main effect for time frame, F(1, 162) = 11.34, p < .001,  $\eta_p^2 = 0.12$ , and age group, F(1, 162) = 4.62, p = .03,  $\eta_p^2 = 0.03$ , but no interaction, F(1, 162) = .28, p = .76,  $\eta_p^2 = 0.00$ . Follow-ups showed that bump advertisements (M=5.23, SD = 1.19) had higher diachronic relevance than non-bump past advertisements (M=4.28, SD=1.77), t(106)=3.27, p=.001,and present advertisements (M=3.92, SD=1.60), t(116)=4.70, p < .001. Late-stage boomers (M=4.77, SD=1.58)rated the advertisements as having higher diachronic relevance than did the Gen X group (M=4.22, SD=1.62). Thus, H1a was supported but the effect held equally for both age groups (H1b not supported; Table 1).

Hypothesis 2 (a, b) was that reminiscence bump advertisements would elicit higher purchase intent than present advertisements but also than non-bump past advertisements. These effects were expected to be more pronounced for the older age group. There was a main effect of time frame for purchase intent, F(1, 162) = 5.17, p = .01,  $\eta_p^2 = 0.06$ , and age group, F(1, 162) = 6.62, p = .01,  $\eta_p^2 = 0.04$  but no interaction,  $F(1, 162) = 1.24, p = .29, \eta_p^2 = 0.02$ . Follow-ups revealed that bump advertisements (M=4.51, SD=1.82) elicited significantly higher purchase intent than non-bump advertisements (M=3.61, SD=1.94), t(106)=2.39, p=.02, and present advertisements (M=3.46, SD=1.95), t(116)=3.04, p=.003.There was no difference between non-bump past and present advertisements, t(108) = .44, p > .05. Late-stage boomers (M=4.28, SD=1.92) showed higher purchase intent overall than the Gen X group (M = 3.50, SD = 1.91).

Hypothesis 3 was that obtained relations between time frame conditions and purchase intent would be mediated by diachronic relevance. Hayes (2012) computational tool with a non-parametric bootstrapping technique (N=1000) permits researchers to identify the direct and indirect effects of an independent variable on a dependent variable.

Because there was a significant time frame effect for bump versus present-focused advertisements on purchase intent, our first analysis (Model 1; bump = 1 vs. the present = 0) focused on diachronic relevance as a mediator of that relationship. As shown in Table 2, the total effect of Model 1 (weight c) was significant, t(116) = 3.04, p = 0.003. As predicted, this total effect was completely driven by the indirect effect through diachronic relevance (weights  $a \times b$ ), t(116) = 4.68, p = .001, 95% CI [.77, 1.86]. The effect of time frame on purchase intent was not evident when diachronic relevance was included in the model, showing full mediation. That is, the direct effect (weight c') was not significant, t(116) = -.97, p = .34,95% CI [-.76,.26]. Consistent with our previous finding (Hypothesis 1a), time frame (bump vs. present) predicted diachronic relevance (weight a), t(116) = 5.05, p < .001, 95% CI [.80, 1.83]. Additionally, diachronic relevance predicted

<sup>&</sup>lt;sup>1</sup> Three items on the Diachronic Relevance scale were nostalgia related. When major analyses were run separately with just these three items, all results remained the same. Note that, as with the full Diachronic Relevance scale, boomers rated the nostalgia items significantly higher overall, regardless of condition.

Table 1. Diachronic relevance index and purchase intent by time frame and age group

	Bump		Non-bump Past		Present		Gen X		Late-stage boomers	
Variables	M	SD	M	SD	M	SD	M	SD	M	SD
Diachronic relevance index Purchase intent	5.23 4.51	1.19 1.82	4.28 3.61	1.77 1.94	3.92 3.46	1.60 1.95	4.22 3.50	1.62 1.91	4.77 4.28	1.58 1.92

Table 2. Summary of direct and indirect effects

Time frame of advertisement	Effect of IV on M (a)	Effect of M on DV (b)	Direct effects (c')	Indirect effects $(a \times b)$	Total effects (c)
Model 1 Bump <i>versus</i> Present Model 2	1.31***	.99***	25	1.30***	1.05***
Bump <i>versus</i> non-bump past	.96***	.97***	03	.93***	.90***

IV, indirect variable; DV, direct variable.

Mediator (M), diachronic relevance index; IV, time frame; DV, purchase intent; reminiscence bump time frame, 1 in both models. \*\*\*p < .001.

purchase intent (weight b), t(116) = 11.93, p = .001, 95% CI [-1.16, -.83].

Because there was also a significant time frame effect for bump *versus* non-bump past advertisements on purchase intent, the next analysis (Model 2; bump=1 vs. non-bump past=0) focused on diachronic relevance as a mediator of that relationship. In Model 2 (Table 2), the total effect (c) was significant, t(106) = 2.48, p = .015 and the direct effect of time frame on purchase intent (c') was not, t(106) = -.12, p = .90, 95% CI [-.52, .46]. The total effect was driven by the indirect effect (weights  $a \times b$ ), t(106) = 3.13, p < .01, 95% CI [.40, 1.59], again showing full mediation. Consistent with the previous finding (Hypothesis 1a), time frame (i.e., bump=1 vs. non-bump past=0) was related to diachronic relevance (weight a), t (106) = 3.33, p < .001, 95% CI [39, 1.53] and diachronic relevance predicted purchase intent (weight b), t(106) = 12.29, p < .001, 95% CI [.81, 1.13].

The mediation analyses show that differences in purchase intent by time frame (bump *vs.* present; bump *vs.* non-bump) are fully mediated by participants' ratings of the diachronic relevance of the advertisements. That is, bump-focused advertising was viewed as having more diachronic relevance, which led to participants' greater intention to buy the advertised product.

# DISCUSSION

Marketing researchers have begun conducting research on what is termed nostalgic advertising (Lasaleta, Sedikides, & Vohs, 2014; Muehling *et al.*, 2014). The concept is that individuals have positive reactions to thinking about their past and that this will result in favorable views of the advertised product. Grounded in research in cognitive psychology, the goal of this study was to examine whether advertising focused on the reminiscence bump might be particularly effective. The findings support hypotheses that reminiscence bumpfocused advertisements show higher diachronic relevance and elicit greater purchase intent than either non-bump past advertisements or present-focused advertisements. Also, as

predicted, analyses showed that greater purchase intent after viewing the bump-focused advertisement (i.e., compared with both present-focused and non-bump past-focused) was mediated by the diachronic relevance of the advertisements. Contrary to expectation, none of these effects differed across Gen X and late-stage boomer groups.

# Reminiscence bump advertisements elicit diachronic relevance

As predicted, based on research that people preferentially recall memories from the reminiscence bump period (e. g., Berntsen & Rubin, 2004), bump-focused advertisements were rated as having higher diachronic relevance than the other two conditions. Participants felt more positively engaged at present and more positively viewed their past when viewing advertisements from the bump years. It appears that viewers, regardless of whether they are relatively young or in midlife, react more positively when exposed to advertisements that cue them to think back, particularly to the early reminiscence bump years (i.e., when they were about 10 to 25 years old; Janssen *et al.*, 2007), compared with later periods in their past or to the present day.

This research fits well with past studies on the reminiscence bump that have focused on the frequency of recalling memories from different periods in one's life (e. g., Berntsen & Rubin, 2004; Glück & Bluck, 2007). It also differs from that research, however. Instead of asking individuals to recall personal memories from their own past, the present study presented participants with aspects of popular culture from their early bump years. That is, advertisements contained popular songs and movies released when participants were 15–25 years old. As such, individuals did not necessarily recall specific memories but instead were encouraged to mentally time travel back to that bump period. Although most reminiscence bump studies focus on age-frequency distributions of personal memories, some are more similar to the current research in that they also examine recall as related to popular culture. For example, popular movies, songs, and books from the early bump period have been rated more favorably than those from other years, (Janssen et al., 2007) and when asked to name the best football players of all time, participants chose those who were top players when the participants were adolescents (mode = 17; Janssen, Rubin, & Conway, 2012). Given this preferential recall for popular culture from the bump years, the finding in the current study that individuals respond more positively to advertisements encouraging them to recall those years is highly consistent with the literature.

# Diachronic relevance plays an important role in purchase intent

Those who viewed the reminiscence bump advertisement showed, crucial to marketing, a higher purchase intent than those who viewed the present-focused advertisement or the non-bump past advertisement. Not only did our findings show greater ratings of diachronic relevance for the bump-focused advertising but also that greater diachronic relevance plays an important role in consumers' intent to purchase the product. Diachronic relevance fully mediated the relation between time frame and purchase intent for bump-focused *versus* both present-focused advertisements and non-bump past past-focused advertisements.

# Application: using bump-focused advertisements in marketing

The most important aspect of an advertising campaign, intent to purchase the product (Fitzsimons & Morwitz, 1996), was higher when individuals viewed bump-focused advertising. Increasing purchase intent is a major aim of advertising campaigns. Purchase intent in consumers reflects product-related cognitions that are expected to eventually lead to buying behavior (Morwitz, Johnson, & Schmittlein, 1993). The current research not only shows that reminiscence bump-focused advertisements increase purchase intent but sheds light on why higher purchase intent occurs. That is, analyses showed that diachronic relevance, positive engagement with the advertisement in the present and as a reminder of a positive past, lead to intent to purchase the product.

Taken together, the findings imply that using reminiscence bump-focused advertising should be a positive strategy for marketing products to individuals across a wide adult age range. Nostalgic advertising has been shown to be effective (Muehling & Sprott, 2004). Given the current findings, instead of focusing on any past life period in designing nostalgic advertising, marketers should consider campaigns that focus specifically on the early bump years (i.e., 15–25 years).

# Generation X and late-stage boomers: different ages, same reactions

Because older persons are theorized to look back on and evaluate their lives more than those in young adulthood (Neugarten, 1973), we expected effects for bump-related advertising would be more pronounced for late-stage boomers. Instead, there were no age group differences. Late-stage boomers showed higher scores than Gen X on both diachronic relevance and purchase intent, but this occurred regardless of the time frame of the

advertisement. Our findings suggest that nostalgic advertising is relevant not only when marketing to middle-aged adults but also works for those in their 30s who have just left the bump period. Although advertising campaigns need to be sensitive to the demographic of their target audience (Aaker, Brumbaugh, & Grier, 2000), it appears that bump-related advertising is suitable for individuals across a wide range in adulthood.

### LIMITATIONS AND CONCLUSION

This study has two important limitations. First, we examined only two past periods. Because childhood is often thought of as an idyllic time in one's life, future studies should include the pre-bump childhood period (i.e., <10 years old), as well as the reminiscence bump years, the post-bump years, and the present. Second, although we measured purchase intent, there is a wide gap between intention and actual purchasing behavior that remains to be explored in future work. Overall, however, the study findings contribute to the literatures on the reminiscence bump in cognitive psychology and nostalgic advertising in the marketing field. Nostalgic themes are a popular means for marketing practitioners. The current research shows how cross-disciplinary research with psychologists may sharpen campaigns.

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