

It Was a Most Unusual Time: How Memory Bias Engenders Nostalgic Preferences

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ABSTRACT

Nostalgic preferences are widespread—people believe past movies, music, television shows, places, and periods of life to have been better than their present counterparts. Three experiments explored the cognitive underpinnings of nostalgic preferences. Participants rated past experiences to have been superior to similar present and recent experiences. These nostalgic preferences appeared to be due to the belief that the atypically positive experiences that participants recalled at the time of judgment were more representative of their past experiences than of their present experiences. Copyright © 2012 John Wiley & Sons, Ltd.

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Nostalgic preferences, beliefs that past experiences were better than their present counterparts, are widespread. People believe everything from the general state of their country to the quality of their television programming has declined from its past zenith (CBS News/New York Times, 2006; Princeton Survey Research Associates International, 2005). This more positive evaluation of the past is reflected in a general preference for the music, movies, movie stars, fashion models, and automobiles that were popular during one's youth (Holbrook & Schindler, 1989; Schindler & Holbrook, 2003). Which past experiences evoke nostalgic preferences varies according to the year in which one was born, not the specific experiences evaluated (Holbrook & Schindler, 1996). Rather than reflect the actual superiority of the past, then, nostalgia and nostalgic preferences have cognitive and motivated origins (e.g., Leboe & Ansons, 2006; Routledge, Arndt, Sedikides, & Wildschut, 2008). In this paper, I suggest that one factor underlying nostalgic preferences may be differences in the perceived representativeness of memories recalled when evaluating past and present experiences.

People often base category judgments on a few cognitively accessible exemplars, which tend to be atypical members of the category (Frederickson & Kahneman, 1993; Hastie & Kumar, 1979; Morewedge, Gilbert, & Wilson, 2005; Morewedge & Todorov, ; Risen & Gilovich, 2008; Smith & Zárate, 1992; Tversky & Kahneman, 1973; Wirtz, Kruger, Scollon, & Diener, 2003). When predicting their enjoyment of a football game that they are about to watch, for example, fans tend to recall the best game that they can remember and base their prediction on their enjoyment of that unusually good game. Consequently, category judgments tend to be extreme because people only correct for the atypicality of the instances they remember if their atypicality is obvious or is made obvious (Hamill, Wilson, & Nisbett, 1980; Morewedge et al., 2005).

This tendency to base judgments of categories on atypical exemplars may, in part, underlie nostalgic preferences for

past experiences. In most domains of memory and attention, bad dominates good (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Ochsner, 2000). In the domain of autobiographical memory, however, positive events are better remembered than negative events (Mitchell, Thompson, Peterson, & Cronk, 1997; Walker, Skowronski, & Thompson, 2003; Walker, Vogl, & Thompson, 1997). People exhibit a fading affect bias, for example, such that they more quickly forget negative than positive past experiences (Ritchie et al., 2006). One consequence of biased memory for positive experiences is that if atypically positive exemplars are recalled at the time of judgment, they should seem more representative of past than present categories of which those exemplars are a member. This, in turn, may lead to the belief that categories of past experience were better than their present counterparts.

I report three experiments that tested the hypothesis that nostalgic preferences for past experience are, in part, due to (i) a tendency to recall atypically positive memories at the time of judgment, coupled with (ii) a belief that those atypically positive memories are more representative of past than present categories of experience. Experiment 1 tested my hypothesis by examining how better memory for atypically positive experiences influences preferences for television programs of past decades and the present decade. Experiment 2 tested my hypothesis by examining how better memory for atypically positive experiences influences preferences for movies released in the year in which participants graduated from high school, or the most recent full year. Experiment 3 tested whether people see all past experiences as more similar to the atypically positive experiences they recall because people believe there were fewer bad past experiences or because all past experiences are believed to be more similar in quality to those atypically positive experiences.

EXPERIMENT 1: PAST AND PRESENT TELEVISION PROGRAMS

In the summer of 2005, participants first rated the average quality of television programs of a past decade (i.e., the

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1980s or the 1990s) or their present decade (i.e., the 2000s). Next, participants recalled and rated the quality of either any single television program from that decade or the best television program that they could remember from that decade. Finally, all participants rated how representative the program they recalled was of all of television programs of its decade.

I expected that participants would exhibit a nostalgic preference for past experiences: Participants would consider television programs of the 1980s and the 1990s to have been better on average than television programs of the 2000s. More important, I predicted that this nostalgic preference would be due to a bias to recall atypically good programs, coupled with the belief that the programs they recalled were more representative of all programs of their past (the 1980s and the 1990s) than of their present (the 2000s).

Method

Participants

Eighty-five commuters (47 women; $M_{\text{age}}=31.6$, $SD=12.7$) in Boston, MA, volunteered to participate.

Procedure

In a between-subjects design, participants first reported how good television programs were, on average, in one of three decades: the 1980s, the 1990s, or the 2000s. This rating was made on a 10-point scale with endpoints, *not at all* (1) and *very good* (10). Next, participants were prompted to recall either one program or their favorite program produced during that decade, and rated its quality on an identical scale. Finally, participants rated how similar the program they recalled was to all other programs on television during that decade on a 10-point scale with endpoints, *not at all similar* (1) and *very similar* (10).

Results and discussion

Average program

Assessments of the average quality of television programs were submitted to a between-subjects analysis of variance (ANOVA), which yielded a significant main effect of decade, $F(2, 82)=6.13$, $p=.003$, $\eta_p^2=.09$. Planned orthogonal contrasts (weights shown in parentheses) revealed that participants who evaluated television programs of the 1980s (+1) and the 1990s (+1) rated the average quality of those programs higher than did participants rating the average quality of programs of their present decade (-2), $t(82)=3.45$, $p=.001$, $r=.36$ (Table 1). As predicted, participants exhibited nostalgic preferences. They considered television programs to have been better in decades past than in their present decade.

One concern with testing nostalgic preferences in the domain of television programming is the possibility that the preference for past programs was driven by younger participants who had only been exposed to the best programs of the past (e.g., reruns) and had been sheltered from the worst programs of those eras. If this was true, one would

Table 1. Television program ratings by decade in Experiments 1 and 3

	1980s	1990s	2000s
Experiment 1			
Average program	6.26 (1.83)	6.57 (1.91)	4.87 (2.16)
Program recalled	7.81 (1.81)	8.54 (1.60)	8.07 (2.30)
Perceived similarity	5.85 (1.63)	5.07 (2.75)	4.30 (2.18)
Experiment 3			
Average program	6.56 (1.77)	7.26 (1.87)	5.65 (2.60)
Best program	8.10 (1.48)	8.18 (1.65)	7.63 (2.34)
Worst program	3.36 (1.61)	3.10 (2.04)	1.70 (1.14)

Note: Standard deviations appear within parentheses.

expect that controlling for age in the analyses or removing these younger participants should eliminate nostalgic preferences for past programs. Including age as a covariate in the analysis, however, had no substantive effect on the main effect of decade on ratings of the average quality of programs, $F(2, 81)=6.88$, $p=.01$. Moreover, removing all participants who were born after 1980 from the analyses in Experiment 1 did not diminish the main effect of decade on ratings of the average quality of programs, $F(2, 45)=8.69$, $p=.001$.¹

Program recalled

As predicted, participants asked to recall any one program recalled atypically positive programs. They rated the program they recalled as superior to the average quality of programs in each of the three decades, all $t_s \geq 2.82$, all $p_s \leq .01$. Moreover, participants asked to recall any one program rated the programs that they recalled as highly as did participants explicitly asked to recall the best program they could remember, $t(83)=1.28$, $p=.20$, $r=.14$. This was also true for all three decades: the 1980s ($M_{\text{any}}=7.40$, $SD=2.17$; $M_{\text{best}}=8.33$, $SD=1.37$), the 1990s ($M_{\text{any}}=8.60$, $SD=1.40$; $M_{\text{best}}=8.46$, $SD=1.85$), and the 2000s ($M_{\text{any}}=7.69$, $SD=2.92$; $M_{\text{best}}=8.50$, $SD=1.29$), all $t_s \leq 1.30$, all $p_s \geq .21$. Given the close match in ratings of the program recalled across both recall prompts, within each decade, I collapsed across recall prompt in subsequent analyses (for means, see Table 1).

Perceived similarity

I next tested whether the programs that participants recalled were considered more representative of the programs of the 1980s and the 1990s than their present decade (the 2000s). A between-subjects ANOVA revealed a significant main effect of decade on perceived similarity, $F(2, 82)=3.41$, $p<.04$, $\eta_p^2=.08$. Planned orthogonal contrasts (weights shown in parentheses) revealed that participants who evaluated television programs of the 1980s (+1) and the 1990s (+1) perceived the program they recalled to be more similar to the

¹For Experiment 1, $M_{1980s}=6.40$, $SD=1.96$, $M_{1990s}=5.93$, $SD=2.13$, $M_{2000s}=3.89$, $SD=1.60$; contrast, $t(45)=4.10$, $p<.001$. For Experiment 3, $M_{1980s}=6.68$, $SD=1.85$, $M_{1990s}=7.25$, $SD=1.84$, $M_{2000s}=5.80$, $SD=2.41$; contrast, $t(89)=2.55$, $p=.01$.

other programs of its decade than did participants who evaluated the programs of their present decade (-2), $t(82)=2.28, p < .03, r = .24$ (Table 1).

Analysis of mediation

Finally, I conducted a mediation analysis to test whether the differences in the perceived representativeness of the past and present programs recalled could explain the nostalgic preferences exhibited. The criteria for mediation were met, as the independent variable (decade) significantly predicted the dependent variable (average quality), $b = -.714, SE = .269, t(83)=2.66, p = .009$, and the mediator (perceived similarity of the recalled program and other programs), $b = -.776, SE = .269, t(83)=2.63, p = .01$. Whereas decade alone predicted average quality, when perceived similarity was included in the model, decade did not significantly predict average quality but perceived similarity did, $b = -.489, SE = .267, t(83)=1.84, p = .07$, and $b = .289, SE = .095, t(83)=3.04, p = .003$, respectively. A Sobel test confirmed mediation, $z = 2.00, p < .05$ (see top of Figure 1).

It is important to note that reverse mediation (i.e., similarity mediated by decade) is not supported. When perceived similarity is entered first in the model and decade is then entered as a mediator, perceived similarity still significantly predicts average quality, but decade is only marginally significant, $b = .298, SE = .10, t(83)=3.04, p = .003$ and $b = -.489, SE = .27, t(83)=1.84, p = .07$; Sobel $z = 1.50, p = .13$.

Posttest 1: similarity of recalled programs by decade

To be sure that programs from past decades were not actually more similar to each other than programs of the present decade, participants in a posttest ($N=91$; 37 women, $M_{\text{age}} = 23.48$) were shown a list of all of the television programs named in the free recall task by participants in Experiment 1 for one of the three decades (18, 19, and 19 unique programs, respectively). They then rated the similarity of each television program to the other programs listed from that decade on a

5-point scale with endpoints, *not at all similar* (1) and *extremely similar* (5). Submitting the average perceived similarity of programs to an ANOVA with decade as the between-subjects factor revealed no significant differences between conditions ($M_{1980} = 2.96, SD = .73$; $M_{1990} = 2.75, SD = .61$; $M_{2000} = 2.63, SD = .77$), $F(2, 88) = 1.46, p = .24$. A planned contrast testing whether participants considered the average perceived similarity of shows recalled from the 1980s (+1) and the 1990s (+1) to be greater than the shows recalled from the 2000s (-2) was also not significant, $t(88) = 1.28, p = .20$.

Posttest 2: similarity of randomly selected programs by decade

As recollection may favor a particular kind of program, it is possible that less memorable programs might differ to a greater extent across decades than the programs that participants recalled. To test this question, I randomly selected 17 shows from each decade from the most comprehensive list of television shows from the 1980s, the 1990s, and the 2000s that is available on the Internet (Old TV Shows Homepage, 2010). In a between-subjects design, a new sample of 90 participants (46 women, $M_{\text{age}} = 23.11, SD = 12.78$) were given the title of each show and a short synopsis before rating the similarity between each show and the other 17 shows listed from that decade on the scale used in Posttest 1. An ANOVA with decade as the between-subjects factor revealed no significant effect of decade on average perceived similarity ($M_{1980} = 2.56, SD = .68$; $M_{1990} = 2.78, SD = .80$; $M_{2000} = 2.62, SD = .64$), $F < 1$. A planned contrast testing whether participants perceived the shows randomly selected from the 1980s (+1) and the 1990s (+1) to be more similar to each other than the shows randomly selected from the 2000s (-2) was also not significant, $t < 1$.

Discussion

Participants exhibited nostalgic preferences. Participants perceived the average quality of television programs of

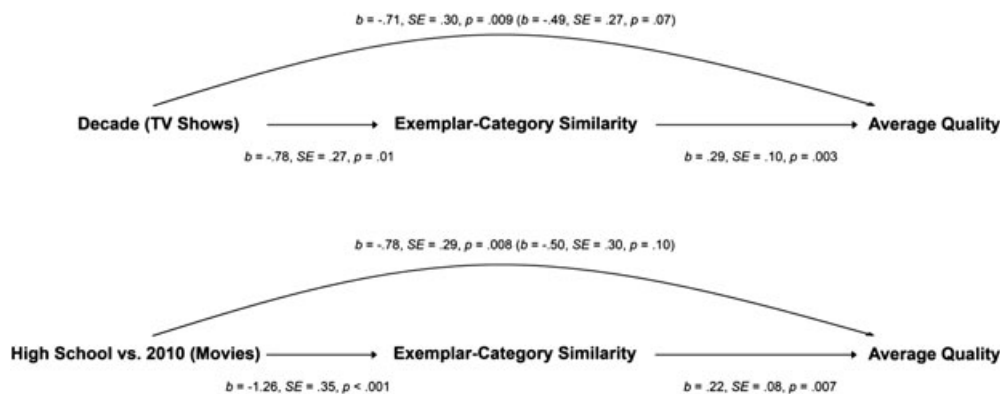


Figure 1. Top: Television programs were considered superior in decades past than the present decade because the perceived similarity between the atypical good program that participants recalled and other programs was greater for decades past than for the present decade (Experiment 1). Bottom: Movies were considered superior in the year in which participants graduated high school than the most recent full year because the perceived similarity between the atypical good movie that participants recalled and other movies was greater for years past than the most recent full year (Experiment 2)

the 1980s and the 1990s to be superior to the programs of their present decade, despite recalling similarly good programs at the time of judgment across all three decades. Rather than solely reflect a recall bias, these nostalgic preferences were due to a belief that the best programs of the past better represented all programs of their time than did the best programs of the present. In other words, participants believed that the atypically good television programs they recalled at the time of judgment were more representative of all programs of past decades than of their present decade.

In some cases, the misattribution of the positive affect felt upon successful recollection accounts for nostalgic evaluations of past experience (Leboe & Ansons, 2006), but it is unlikely to account for the results of Experiment 1. Participants who recalled any one program from the 1980s or the 1990s did not rate the program they recalled as significantly better than did participants who recalled any one program from the present (a presumably easier task).

Another potential concern is that the results simply reflect the superior quality of television programming in the 1980s and the 1990s. This alternative explanation is unlikely to be true, however, as Holbrook and Schindler (1989, 1996) have found that consumers exhibit a general preference for the music, films, and actors that were popular during their late adolescence and early adulthood. Thus, it does not appear that people perceive the quality of entertainment to be worsening over time. As these nostalgic preferences for past experience depend on the year in which people are born rather than on the specific stimuli evaluated, it is unlikely that all of these categories of past experience were actually better than their present counterparts.

Perhaps the best evidence against actual differences in the quality of television programs across the three decades is that the most recent survey of all television programming (Poniewozik, 2007) included no more television programs in the top 100 programs of all time from the 1980s or the 1990s than the 2000s, $F < 1$. Considered together with the nostalgic preferences exhibited for other categories of stimuli, this suggests that the results of Experiment 1 are not due to an actual difference in quality of television programming across the three decades examined. Nevertheless, I designed Experiment 2 to directly address this concern.

EXPERIMENT 2: DISTANT AND RECENT MOVIES

In the fall of 2011, participants in Experiment 2 rated the average quality of movies in 2010 (i.e., the most recent full year) or rated the average quality of movies in the year in which they graduated from high school (which ranged from 1959 to 2009). Because the year evaluated in the high school condition varied across participants, evaluations of past movies should not be contingent on the actual quality of movies released in a particular year.

After rating the average quality of movies that year, all participants recalled their favorite movie of that year. They then rated the similarity of their favorite movie to all other movies released that year and rated the quality of their

favorite movie. The last two ratings were counterbalanced to avoid the potential for conversational norms to influence the interpretation of the similarity judgment (Grice, 1975). As in Experiment 1, I predicted that participants would rate the movies of their distant past (regardless of the year in question) to be superior to the movies of the recent past, because they perceived their favorite movie of the distant past to be more representative of all movies released that year.

Method

Participants

One hundred and nine Americans (62 women; $M_{\text{age}} = 32.72$, $SD = 12.39$) participated in a short online experiment on mTurk.com in exchange for 10¢.

Procedure

In a between-subjects design, participants first rated the average quality of all movies either released in 2010 or movies released in the year in which they graduated from high school on a 9-point scale with endpoints, *very bad* (1) and *very good* (9). All participants then recalled and reported their favorite movie of that year. Half of participants first rated the extent to which they perceived it to be similar to all other movies released in that year on a 9-point scale with endpoints, *very dissimilar* (1) and *very similar* (9). They then rated the quality of the recalled movie on a 9-point scale with endpoints, *very bad* (1) and *very good* (9). Half of participants made these two ratings in the reverse order (i.e., quality before similarity). Finally, all participants reported demographic information including the year in which they graduated high school.

Results

Seven participants who reported that they graduated from high school in 2010 or later were excluded from all further analyses. The average year of graduation for the remaining participants was 1995 ($SD = 12.69$).

Average quality

Participants believed that the movies released in the year in which they graduated high school were of higher average quality than the movies released in 2010, $t(100) = 2.69$, $p = .008$, $r = .26$ (Table 2). This difference was not due to the particular year in which participants graduated from high school; there was no correlation between year of graduation and average quality ratings of movies released that year, $r(47) = -.02$, $p = .92$ (Figure 2).

Perceived quality and similarity

Similarity ratings and quality ratings of the movie recalled were analyzed in separate 2 (time: recent past, distant past) 2 (order: similarity first, quality first) ANOVAs. Analysis of similarity ratings only revealed a main effect of time, such

Table 2. Motion picture ratings by year in Experiment 2

	High school graduation	2010
Average movie	5.86 (1.41)	5.08 (1.52)
Favorite movie	7.35 (1.58)	7.79 (1.23)
Perceived similarity	4.90 (1.93)	3.64 (1.58)

Note: Standard deviations appear within parentheses.

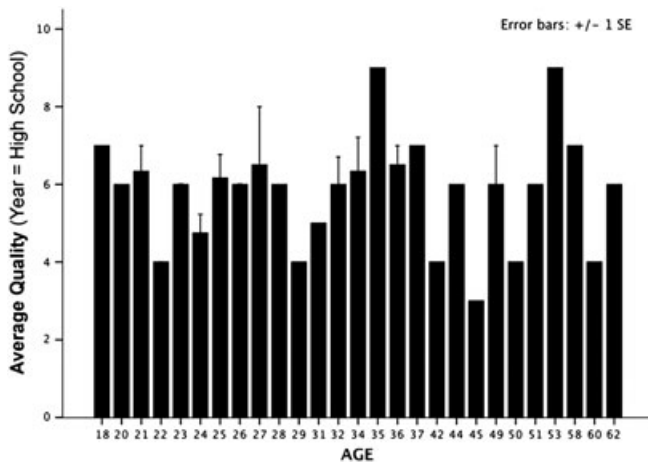


Figure 2. Average quality of all movies released the year in which participants graduated from high school by age of participants

that participants in the distant past condition considered their favorite movie to be more similar to all other movies released that year than did participants in the recent past condition, $F(1, 98) = 13.02$, $p < .001$, $\eta_p^2 = .12$ (Table 2). There was no main effect of order or interaction, $F_s < 1$. Quality ratings of participants' favorite movie were not affected by time, order, or their interaction, $F(1, 98) = 2.51$, $p = .12$, $F < 1$, and $F < 1$.

Analysis of mediation

As the independent variable (time) significantly predicted the dependent variable (average quality), $b = -.78$, $SE = .29$, $t(98) = 2.69$, $p = .008$, and the mediator (perceived similarity), $b = -1.26$, $SE = .35$, $t(98) = 3.61$, $p < .001$, an analysis of mediation was performed. When perceived similarity was included in the model, time no longer significantly predicted average quality, but perceived similarity did, $b = -.50$, $SE = .30$, $t(98) = 1.68$, $p = .10$, and $b = .22$, $SE = .08$, $t(98) = 2.75$, $p = .007$. A Sobel test confirmed mediation, $z = 2.21$, $p = .02$ (see bottom of Figure 1).

It is important to note that reverse mediation (i.e., similarity mediated by time) is not supported. When similarity is included first in the model and time is entered as the mediator, similarity still significantly predicts average quality, but time is only marginally significant, $b = .230$, $SE = .08$, $t(98) = 2.95$, $p = .004$ and $b = -.547$, $SE = .29$, $t(98) = 1.92$, $p = .06$; Sobel $z = 1.91$, $p = .06$.

Discussion

Participants exhibited nostalgic preferences. Regardless of the year in which they graduated, participants believed that the movies released the year in which they graduated high school were superior to the movies released in the most recent year. As movies from all past years were deemed similarly good, it is unlikely that the difference between ratings of the present and past were due to the actual superiority of older movies.

Additionally, as graduation year also serves as a marker of age, the results suggest that nostalgic preferences are not due to a tendency to, over time, forget the worst movies. If so, older participants would have then rated the movies from the year in which they graduated high school to have been better than would younger participants. Rather, the results suggest that the nostalgic preferences exhibited in Experiment 2 were due to a belief that the atypically good movie that participants recalled better represented all movies of a year in the distant past than the most recent year.

EXPERIMENT 3: WHAT MEMORIES CHANGE?

Conducted in the summer of 2005, Experiment 3 examined the changes in memory that lead people to believe that the atypically good exemplars that they recall are more representative of past categories than the present categories. The best experiences may seem more representative because people believe that (i) all programs of the past were more similar in quality to their favorite programs or that (ii) there were simply fewer bad programs in the past than there are in the present.

Participants rated the average quality of television programs from the 1980s, the 1990s, or the 2000s (their present decade) and then rated the quality of the best and worst programs on television of that decade. If the greater representativeness of atypically good past programs is due to the belief that all programs were more like those programs, participants should believe that the worst programs of the past were better than the worst programs of the present. If the greater representativeness of atypically good past programs is due to the belief that there were simply fewer bad programs in the past than there are in the present, participants should believe that the worst programs of the past were just as bad as the worst programs of the present.

Method

Participants

One hundred and twenty pedestrians (51 women; $M_{\text{age}} = 33.0$, $SD = 9.7$) in Cambridge, MA, volunteered to participate. The responses of two participants who did not complete the experiment were excluded from all further analyses.

Procedure

In a between-subjects design, participants first rated the average quality of television programs in one of three decades: the 1980s, the 1990s, or the 2000s on a 10-point

scale marked with endpoints, *not at all* (1) and *very good* (10). Next, participants rated the quality of the best and worst television programs of that decade on two separate, identical scales.

Results

Average programs

Assessments of the average quality across decades (1980s, 1990s, 2000s) were examined within a between-subjects ANOVA, which yielded a significant main effect, $F(2, 115) = 5.72$, $p = .004$, $\eta_p^2 = .09$. As suggested by Rosenthal and Rosnow (1991), planned orthogonal contrasts (weights shown in parentheses) revealed that participants evaluating television programs of decades past—the 1980s (+1) and the 1990s (+1)—evaluated those programs more positively than did participants evaluating the programs of their present decade (−2), $t(115) = 3.06$, $p = .003$, $r = .27$ (Table 1). Reflecting a nostalgic preference for past experience, participants considered television programs to have been better on average in the past than in the present.

Including age as a covariate in the analysis of the data has no influence on the main effect of decade on ratings of the average quality of programs, $F(2, 114) = 5.64$, $p = .005$. Similarly, removing all participants who were born after 1980 from the analyses does not substantively diminish the main effect of decade on ratings of the average quality of programs, $F(2, 89) = 3.71$, $p = .03$.¹

Best and worst programs

Assessments of the quality of the best and worst television programs were examined using between-subjects ANOVAs. As predicted, no significant main effect of decade (1980s, 1990s, 2000s) was found for ratings of the best programs, $F(2, 115) = 1.03$, $p = .32$, $\eta_p^2 = .02$ (Table 1). More important, a significant main effect of decade was found for ratings of the worst programs, $F(2, 115) = 11.85$, $p < .001$, $\eta_p^2 = .17$. Planned orthogonal contrasts (weights shown in parentheses) revealed that participants evaluating television shows of decades past—the 1980s (+1) and the 1990s (+1)—evaluated the worst programs more positively than did participants evaluating the worst programs of their present decade (−2), $t(115) = 4.82$, $p < .001$, $r = .41$.

Discussion

Participants exhibited nostalgic preferences. They considered television programs of past decades to have been superior, on average, to the programs of their present decade. Moreover, whereas participants considered the best past and present programs to be equally good, they considered the worst programs of past decades to have been better than the worst programs of their present decade. This implies that the atypically good exemplars that people recall are considered more representative of past experiences than present experiences because people believe all past experiences were more similar to those atypically good exemplars, not because people simply believe there were fewer (equally) bad experiences in the past than in the present.

GENERAL DISCUSSION

The present research explains how our better recollection of positive than negative past experiences engenders nostalgic preferences. Exhibiting nostalgic preferences, participants in three experiments believed that the average quality of television programs and motion pictures of years past was superior to the average quality of their present counterparts. Biased recall alone did not cause this difference. Whether recalling a specific experience from the past or the present, participants were equally likely to recall an atypically good experience. Rather, it was a belief that the atypically good experience they recalled was more representative of past than present experiences that engendered their nostalgic preferences.

The results of Experiment 3 suggest that the greater perceived representativeness of atypically good past experiences is not due to the recollection of fewer negative past experiences. Rather, people perceive greater similarity between all past experiences and the atypically good past experiences that they recall at the time of judgment than between their present counterparts. The reported experiments do not directly address why past experiences are believed to be more similar to these exemplars than are present experiences, but research on category memory may provide some insight into this question.

People have a poor memory for category variability. Even immediately after exposure to very simple categories (e.g., lines of varying lengths), people only remember general properties such as the average and range of the category and forget most specific exemplars (Ariely, 2001). After a delay, ranges are forgotten, and even memory for averages is poor (Silka, 1981). It is likely that as exposure to category members becomes limited, judges forget the general distribution of the category, and their perception is skewed toward the value of the exemplars that they remember. In the context of the present research, exposure to past television programs and movies is more limited than exposure to current television programs and movies. Consequently, evaluations of the distribution of past experiences (e.g., ranges and averages) should be more biased by the atypically good exemplars that they remember.

As the deterioration of memory best fits a power function (Ebbinghaus, 1885), the extremity of nostalgic preferences is unlikely to substantially increase with time. Memory deteriorates quickly, but its deterioration is more rapid initially and slows as time increases between the encoding of a stimulus and its recall or recognition (Wixted & Ebbesen, 1991). Thus, there is more likely to be a difference in preferences for experiences past and present than between more recent and distant past experiences. In Experiment 3, for example, participants who rated television shows from the 1990s even considered them to have been better on average than did participants who rated television shows from the 1980s, $t(78) = 1.99$, $p = .05$. As this peculiar finding did not replicate in Experiment 1 or 2, which both found preferences for past experiences to be relatively similar, it is likely to be due to some incidental factor rather than yield substantive insight into the nature of memory. Indeed,

Experiments 1 and 3 adhered to similar between-subjects designs, the same stimulus set, and asked the same question, but there was no difference in ratings of the average quality of television programs of the 1980s and the 1990s in Experiment 1 ($p = .56$). Experiment 2, which used a different stimulus set, also found no evidence of an inverse (or any) relationship between the age and perceived quality of past movies.

A serious question for future research is to explain why participants preferentially recalled atypically positive personal experiences. It is unclear why positive autobiographical memories are the autobiographical memories most likely to be recalled (Walker et al., 2003). Several mechanisms are intriguing candidates. Atypically positive experiences may be more easily recalled because they have fewer associates (Anderson, 1983), are more likely to receive attention (Wolf & Horowitz, 2004), are more affectively intense (Dutta, Kanugo, & Friebergs, 1972; Frederickson & Kahneman, 1993; Morewedge et al., 2005; Ochsner, 2000; Wirtz et al., 2003), or are strategically rehearsed. We are more likely to reminisce about, discuss, repeat, savor, and take steps to preserve our favorite past experiences, while attempting to avoid reliving and remembering the unpleasant experiences of our past (Ritchie et al., 2006; Taylor & Brown, 1988; Walker et al., 2003; Wegner, 2009; Zauberman, Ratner, & Kim, 2008). Perhaps an unintended consequence of these efforts is that they not only embellish the past but also tarnish our view of the present.

In conclusion, memory appears to resemble a record store. It stocks the hits of the past, and the hits as well as the stinkers of the present. Our mistaken belief that the hits of the past better represent the recordings of their era gives rise to our nostalgic preferences.

REFERENCES

- Anderson, J. R. (1983). Retrieval of information from long-term memory. *Science*, *220*, 25–30.
- Ariely, D. (2001). Seeing sets: Representation by statistical properties. *Psychological Science*, *12*, 157–162.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*, 323–370.
- CBS News/New York Times Poll. (2006, Sept. 15–19). $N = 1,131$ adults nationwide.
- Dutta, S., Kanugo, R. N., & Friebergs, V. (1972). Retention of affective material: Effects of intensity of affect on retrieval. *Journal of Personality and Social Psychology*, *23*, 64–80.
- Ebbinghaus, H. (1885). *Über das Gedächtnis*. Leipzig: Duncker & Humblot.
- Frederickson, B. L., & Kahneman, D. (1993). Duration neglect in retrospective evaluations of affective episodes. *Journal of Personality and Social Psychology*, *65*, 45–55.
- Grice, H. P. (1975). Logic and conversation. In P. Cole, & J. L. Morgan (Eds.), *Syntax and semantics 3: Speech acts* (pp. 41–58). San Diego, CA: Academic Press.
- Hamill, R. C., Wilson, T. D., & Nisbett, R. E. (1980). Ignoring sample bias: Inferences about populations from atypical cases. *Journal of Personality and Social Psychology*, *39*, 578–589.
- Hastie, R., & Kumar, P. A. (1973). Person memory: Personality traits as organizing principles in memory for behaviors. *Journal of Personality and Social Psychology*, *37*, 25–38.
- Hastie, R., & Kumar, P. A. (1979). Person memory: The processing of consistent and inconsistent person information. *Journal of Personality and Social Psychology*, *37*, 25–38.
- Holbrook, M. B., & Schindler, R. M. (1989). Some exploratory findings on the development of musical tastes. *Journal of Consumer Research*, *16*, 19–124.
- Holbrook, M. B., & Schindler, R. M. (1996). Market segmentation based on age and attitude toward the past: Concepts, methods, and findings concerning nostalgic influences on customer tastes. *Journal of Business Research*, *37*, 27–39.
- Leboe, J. P., & Ansons, T. L. (2006). On misattributing good remembering to a happy past: An investigation into the cognitive roots of nostalgia. *Emotion*, *6*, 596–610.
- Mitchell, T. R., Thompson, L., Peterson, E., & Cronk, R. (1997). Temporal adjustments in the evaluation of events: The “rosy view”. *Journal of Experimental Social Psychology*, *33*, 421–448.
- Morewedge, C. K., Gilbert, D. T., & Wilson, T. D. (2005). The least likely of times: How remembering the past biases forecasts of the future. *Psychological Science*, *16*, 626–630.
- Morewedge, C. K., & Todorov, A. (In press). The least likely act: Overweighting atypical past behavior in behavioral predictions. *Social Psychological and Personality Science*. DOI: 10.1177/1948550611434784
- Ochsner, K. N. (2000). Are affective events richly recollected or simply familiar? The experience and process of recognizing feelings past. *Journal of Experimental Psychology: General*, *129*, 242–261.
- Old TV Shows Homepage. (2010). Retrieved from <http://www.crazyabouttv.com> [August 10, 2010].
- Poniewozik, J. (2007, September 6). The 100 best TV shows of all-TIME. Retrieved from <http://www.time.com/time/specials/2007/completelist/0,,1651341,00.html> [August 26, 2010].
- Princeton Survey Research Associates International. (2005, March 17–21). Pew Research Center for the People & the Press survey of adults nationwide.
- Risen, J. L., & Gilovich, T. (2008). Why people are reluctant to tempt fate. *Journal of Personality and Social Psychology*, *95*, 293–307.
- Ritchie, T. D., Skowronski, J. J., Wood, S. E., Walker, W. R., Vogl, R. J., & Gibbons, J. A. (2006). Event self-importance, event rehearsal, and the fading affect bias in autobiographical memory. *Self and Identity*, *5*, 172–195.
- Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioral research: Methods and data analysis* (2nd Edition). Boston, MA: McGraw Hill.
- Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, *44*, 132–140.
- Schindler, R. M., & Holbrook, M. B. (1993). Critical periods in the development of men’s and women’s tastes in personal appearance. *Psychology and Marketing*, *10*, 549–564.
- Schindler, R. M., & Holbrook, M. B. (2003). Nostalgia for early experience as a determinant of consumer preferences. *Psychology and Marketing*, *20*, 275–302.
- Silka, L. (1981). Effects of limited recall of variability on intuitive judgments of change. *Journal of Personality and Social Psychology*, *40*, 1010–1016.
- Smith, E. R., & Zárate, M. A. (1992). Exemplar-based model of social judgment. *Psychological Review*, *99*, 3–21.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193–210.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, *5*, 207–232.
- Walker, W. R., Skowronski, J. J., & Thompson, C. P. (2003). Life is pleasant—And memory helps to keep it that way! *Review of General Psychology*, *7*, 203–210.
- Walker, W. R., Vogl, R. J., & Thompson, C. P. (1997). Autobiographical memory: Unpleasantness fades faster than pleasantness over time. *Applied Cognitive Psychology*, *11*, 399–413.

- Wegner, D. M. (2009). How to think, say, or do precisely the worst thing for any occasion. *Science*, 325, 48–51.
- Wirtz, D., Kruger, J., Scollon, C. N., & Diener, E. (2003). What to do on spring break? The role of predicted, on-lie, and remembered experience in future choice. *Psychological Science*, 14, 520–524.
- Wixted, J. T., & Ebbesen, E. B. (1991). On the form of forgetting. *Psychological Science*, 2, 409–415.
- Zauberman, G., Ratner, R. K., & Kim, B. K. (2008). Memories as assets: Strategic memory protection in choice over time. *Journal of Consumer Research*, 35, 715–728.
- Wolfe, J. M., & Horowitz, T. (2004). What attributes guide the deployment of visual attention and how do they do it? *Nature Reviews Neuroscience*, 5, 495–501.

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