Consumer Mere Newness Bias

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Abstract

We examine a "mere newness bias," a preference for novelty purely due to recentness of release. In a series of studies, we show that, for newer and older products of identical quality, people prefer newly released goods over older goods across a range of domains. This bias translates to a higher willing to pay, greater anticipated excitement, and higher likelihood of purchase for products perceived to be newer. The mere newness bias persists even for die rolls, where there cannot be any difference in quality and where there is no social benefit to newness.

Keywords: novelty; decision making; bias

Introduction

What does an organism do when all its needs are satisfied and all its discomforts eliminated? Psychologists find that answer is generally not "nothing" (Bianchi, 1998; Scitovsky, 1992). In fact, a situation of perfect rest and comfort is unpleasant and boring, and the organism will try to break out of it (Bianchi, 1998).

One outcome of this drive is that humans tend to explore novel stimuli and environments (Berlyne, 1966). Marketers have exploited this tendency when launching new consumer packaged goods (Steenkamp & Gielens, 2003) and new products (Richins & Bloch, 1986). Recently, neuroscientists have proposed that novelty can act as a bonus for rewards (Krebs, Schott, Schütze, & Düzel, 2009), even when such novelty is not related to reward predictions (Wittmann, Daw, Seymour, & Dolan, 2008). The "additive novelty bonus" (Niv, 2009) has direct consequences on choice behavior, and it is above and beyond any effect caused merely by uncertainty (Dayan & Daw, 2008; Wittmann et al., 2008). Redgrave and Gurney (2006) suggested dopamine cells play a central role in encoding such novelty bonuses. In short, the preference for novelty manifests even at the neural level (Dayan & Daw, 2008).

But what is novelty? Cognitive psychology primarily defines novelty as "anything that has not been experienced in the past" (Förster, 2009). The aforementioned studies all operationalized novelty this way; for example, people prefer novel pictures to previously seen ones (Krebs et al., 2009; Wittmann et al., 2008). However, in many choice contexts, this definition of novelty does not make a unique prediction, such as when people face a choice between two novel stimuli. In other words, when people have not been exposed to either of two (or more) stimuli, could they still have a preference for one due to a different form of novelty, *mere newness*?

In this paper, we provide evidence for a "mere newness bias": a novelty-related preference for newer stimuli due to the recentness of their release. In a series of four studies, we show that, for newer and older products of identical quality, people prefer newly released goods over older goods across a range of domains.

Theory

A large body of research in consumer behavior has explored novelty in the consumer products context. Robertson (1971) offered four definitions of "new product": 1) newness from existing products, 2) newness in time, 3) newness in terms of sales penetration levels, and 4) consumer newness to the product. Whereas the first definition is closest to the concept of "novelty," the current study focuses on "newness in time."

In this paper, we propose and show a "mere newness bias". We hypothesize that only mentioning the date of release can bias people towards a recently released product over a product released earlier, even while controlling for actual quality. A major difference between the aforementioned "novelty bonus" and our mere newness bias is that in the previous novelty studies, participants were instructed to make choices *after* being exposed to the novel or familiar stimuli (Förster, 2009; Krebs et al., 2009; Wittmann et al., 2008), whereas in our studies participants needed to make a choice *before* they were exposed to any stimulus. We show that people are novelty seeking not only after a subjective exposure, but even before stimuli exposure, if they are provided certain newness cues such as the information of release date.

It is worth noting that we are not claiming to have documented the effect of framing a product as new or old. Förster, Liberman, and Shapira (2009) have shown that framing a task as new versus familiar can shift people's global versus local processing styles. However, to the best of our knowledge, there have been no studies on novelty that could be caused by product release date, despite the extensive literatures on new product development, consumer innovativeness, and consumer novelty seeking We believe

that the mere newness bias complements the novelty literature and has wide practical implications.

Experiments

Experiment 1a and 1b: Comics and jokes

Methods

In Experiment 1a, 156 Amazon Mechanical Turk participants received a nominal fee to choose and rate one of two Dilbert comic strips and one of two jokes.

In the comic strip task, participants were asked to choose between comic strips "just released this morning" and "released exactly one week ago." Importantly, we told participants that "both comics were carefully chosen by the researcher for their high ratings," suggesting that they should be of similar quality.

Next, participants chose one of two jokes to read and rate, the "Joke of the Month" for July or the "Joke of the Month" for August (the surveys were conducted at the beginning of September). In order to test whether mere newness bias could be overridden by a minor quality difference, participants learned that the website's ratings for the two jokes show that July's joke is "slightly funnier" than August's joke.

The order of comic strip questions and the joke question were randomized. After they made their choices, all participants viewed and rated the same comic strips and joke regardless of their choice, in order to control for actual quality. We debriefed participants at the end of the study about this deception.

Results

In the comic strip tasks, 72.9% of participants chose to view today's comic strip over the one from a week ago (two-tailed binomial test, $p < 0.001$). On the other hand, 68.6% of participants choose to read the "Joke of July" ($p < .001$), suggesting that even a "slightly funnier" joke was enough to overwhelm the mere newness bias.

Participants also rated "how much do you like or dislike" each comic strip and joke on a 1 (Dislike Extremely) to 7 (Like Extremely) scale. There was no difference in ratings of the comic strip between those who chose comic strip released this morning ($M = 4.68$) versus released from one week ago ($M = 4.57$; $F = 0.294$, *ns*). The same was true when they rated "The Joke of Month of July" ($M = 4.18$) versus "The Joke of Month of August" ($M = 4.08$; $F(1,155) = 0.108$, *ns*). All results remain unchanged when we control for previous experience with Dilbert comic strips or jokes.

Discussion

Experiment 1 found a strong mere newness bias for a comic strip released this morning versus one released exactly one week ago, despite there being no reason to believe that the more recently release comic strip is any more entertaining. On the other hand, when choosing between a slightly funnier but older joke and a newer joke, the mere newness bias was overcome by the "slight" qualitative difference we provided. This suggests that mere newness can break a tie when there is no other reason to choose between two options, but that the effect is not large enough to overcome actual quality differences. However, it is also possible (although unlikely) that the mere newness bias only exists for Dilbert comic strips but not for jokes.

To rule out this possibility, we ran a follow-up Experiment 1b ($n = 60$) where we reversed the conditions between the comic strip and joke tasks. That is, the comic task informed participants that "the website's ratings show that last week's strip is slightly funnier than the strip from this morning." Conversely, we deleted the sentence "The website's ratings show that the joke for July is slightly funnier than the joke for August" from the joke task. As expected, when last week's comic strip was slightly funnier, 76.7% chose to view last week's strip over this morning's strip ($p < .001$ for both). Also as expected, without a quality difference, 70% of participants chose the newer joke ($p < 0.01$).

Although we deliberately chose domains where newer is not always better in terms of absolute quality, more recently released comics and jokes may nonetheless be viewed as superior for other reasons. For example, another alternative explanation for these results is that, for both comics and jokes, there is a social aspect to consumption. A more recent comic strip or joke is more likely to become a focal topic in a water cooler conversation or reference more recent events. In order to meet such social needs, people may be motivated to choose more current comic strips and jokes. We therefore designed Experiment 2 to rule out this alternative social explanation.

Experiment 2: Die rolls

In Experiment 2, we chose a domain to rule out the social need alternative explanation: rolling a fair die. Specifically, 107 Amazon Mechanical Turk participants read that a "website has launched a dice game. The rule is: Every morning one staff member from that website will roll a fair die and record its result. The result is only known to the staff member." Participants could bet on either the result of die rolled that morning or the result rolled the morning exactly one week ago. They would win a bonus payment of 20 cents if the die result they bet on was higher than the other, in addition to the base pay of 10 cents. Participants then saw the result of their chosen die roll and learned whether they won the bonus payment. (The actual die rolls were 6 for last week and 3 for this morning.) Finally, participants were instructed not to talk with each other about the result of the study and clicked to verify that "I know I am not supposed to talk with other participants about the game."

Even with a large percentage of their payment on the line, participants again exhibited mere newness bias, with 74.8% choosing to bet on the result from this morning (two-tailed binomial test, $p < 0.001$). That is, even though there was no rational reason to favor one day's roll over the other, the majority of the participants chose to bet on the newer die roll, consistent with what we found in Experiment 1.

The expected value and degree of uncertainty for the die roll from this morning and the roll from one week ago are exactly the same. In addition, it is extremely unlikely for

online participants to talk with each other, so there is no difference in social need between the two dice rolls. We can therefore conclude that the social need explanation cannot (fully) explain mere newness bias. In addition, the experiment was designed in a way that people who chose the older roll would win. If there was any communication among participants, the result would be biased toward the older die roll instead of the newer one.

Experiments 1 and 2 have demonstrated the mere newness bias for choices across multiple domains. However, this bias seems to require that there be no other reason to choose one option over the other, such as a quality difference. We therefore next set out to test whether mere newness bias exists in domains where there is traditionally appreciation for older products, such as wine or antiques.

Experiment 3a and 3b: Wine

In Experiment 3a, 125 undergraduate business students at a public western university participated in a larger survey for course credit that embedded this study. Participants were asked to choose between two bottles of wine released at different dates. Importantly, we controlled for quality differences by keeping the production date and origins identical, as detailed below:

Lafite Bordeaux is one of the most expensive wines in the world. Suppose you and your friends are going to celebrate a very special occasion, and you are provided with a choice between two bottles of Lafite Bordeaux. Both were produced from grapes picked from the same vines and bottled from the same barrels on the same day years ago. One bottle was taken out of the cellar to the restaurant you've reserved *one week before* your celebration dinner, while the other bottle was taken out of the cellar to the restaurant you've reserved *one day before* your celebration dinner. Both bottles have been stored in a professional grade wine refrigerator. Which bottle of wine would you choose?

In addition, we directly tested the degree to which mere newness bias merely serves as a tiebreaker versus being a true preference. To do so, we provided one-third of the participants with a third "no preference" option.

Results and discussion

We again found strong support for mere newness bias. A majority of the 80 participants who made a binary choice between two bottles chose the more recently released bottle (67.5%, $p < 0.01$), although wine is a domain in which older is generally considered better.

For the 45 participants who had a "no preference" option, 40% chose the newer bottle, 4% chose the older bottle, and 56% chose "no preference." Although more than half of the participants expressed no preference, among those who did state a preference, a vast majority chose the newer bottle (90%, $p < .001$)

A second student sample from another class at the same university ($n = 149$) replicated these findings with even stronger results in Experiment 3b. Of the 72 participants who made binary choices, 86.1% chose the newer bottle ($p < .0001$), and of the 77 participants who had the "no preference" option, 48% chose the newer bottle, 9.1% chose the older bottle, and 42.9% chose "no preference." If we only consider the participants who expressed a preference, 84% chose the newly released bottle ($p < .0001$).

These results show that the mere newness bias persists even in domains where there is a general preference for older (although for wine, older vintage and not release date is what matters). The fact that many participants actually choose "no preference" also suggests that the effect may be underestimated in the earlier experiments. Although we have carefully chosen products and crafted scenarios that should eliminate any possibility of quality difference, many people nonetheless express a preference between the two bottles of the same production date, but of different dates when taken out of the cellar. The fact that we find mere newness bias in scenarios designed to produce no preference is exactly what makes this a bias.

Having shown the existence of mere newness bias, we next seek to show its practical or managerial implications in terms of willingness to pay for a "mere newness premium." That is, how much more would a consumer be willing to pay to consume a more newly released product, all else being equal.

Experiments 4a and 4b: Downstream consequences of mere newness bias for movies

In Experiments 4a ($n = 301$ Mechanical Turk participants) and 4b ($n = 140$ student participants completing the study for course credit), we asked participants about their willingness to pay to watch a specific movie based on its teaser synopsis. Specifically, Experiment 4a provided of the 2014 Chinese mystery-thriller movie, *The Great Hypnotist*, and Experiment 4b used the 2010 South Korean action-thriller movie, *The Man From Nowhere*. We chose foreign movies to reduce the risk of participants having previous exposure.

We composed an 8 to 10 line teaser synopsis for each movie from various descriptions on Wikipedia and iMDB in order to increase interest in the movie and to provide sufficient detail for participants to make an informed decision. To manipulate release date, the last sentence in Experiment 4a's synopsis stated that the film was "newly released," "released in recent years," or "released several years ago" in a between-participants manipulation. Experiment 4b instead included the release date in parentheses immediately after the movie title, either "(released in 2014)," "(released in 2010)," or no release date provided. Participants were debriefed about this deception at the end of the study.

After participants read the movie synopsis, they were asked to state their maximum willingness to pay (WTP) to see the movie. In addition, they reported, on 7-point Likert scales, how interested they were in seeing the movie, how excited they imagined they would be at the start of the movie, and how likely they were to watch this movie in the future. Finally, they reported whether they have heard of or watched the movie before, and how many movies a year they watch in total, and watch in theaters.

We excluded from analysis 6 participants in Experiment 4a and 32 in Experiment 4b who indicated that they had heard of or may have heard of the movie presented. Analyses with these participants included were essentially identical.

Table 1 summarizes the results for both experiments. In Experiment 4a, an ANOVA found that participants were willing to pay more to see *The Great Hypnotist* when they were told that it is a newly released movie than when it was a recently released movie or a movie released several years ago, $F(2, 292) = 10.19$, $p < 0.001$, $\eta^2 = 0.064$. A planned linear contrast with the contrast weights 1, 0, -1 showed that participants were willing to pay more to see the movie the more recently it was released, $t(292) = 4.38$, $p < 0.001$, $r_{contrast} = 0.248$. Planned linear contrasts were also marginally significant for anticipated excitement ($t(292) = 1.94$, $p = 0.053$, $r_{contrast} = 0.113$) and significant for likelihood to watch the movie ($t(292) = 2.28$, $p < 0.05$, $r_{contrast} = 0.132$). There was no effect of movie release date on interest in seeing it.

Table 1. Average WTP, interest, anticipated excitement, and likelihood to watch for Experiments 4a and 4b, by condition.

	Experiment 4a: *The Great Hypnotist*			**Experiment 4b: *The Man from Nowhere***		
	Released					
	New	**Recent**	**Years Ago**	**2014**	**2010**	***No info***
WTP	$6.43	$5.81	$4.21	$8.56	$6.95	$6.42
Interest	4.34	4.35	4.07	4.35	4.20	3.61
Anticipated excitement	4.34	4.06	3.96	4.41	4.29	3.69
Likelihood to watch	4.05	3.84	3.51	3.68	3.54	2.78

Experiment 4b found similar results. ANOVA results showed that participants' WTP for *The Man from Nowhere* was marginally higher than when they thought it was released in 2014 than when they thought it was released in 2010 or when no release date information was provided, $F(2,105) = 2.31$, $p = .10$, $\eta^2 = 0.042$, and a planned linear contrast was significant, $t(105) = 2.06$, $p < 0.05$, $r_{contrast} = 0.197$. Planned linear contrasts for interest, anticipated excitement, and likelihood of watching yielded similar results (ts = 2.07, 2.19, and 3.69, respectively; $r_{contrast} = 0.198, 0.209, 0.339$; $p < .05$ for all). Unsurprisingly, both self-reported interest and anticipated excitement mediated the relationship between release date and WTP (Sobel's Z = 2.15 and 2.21, respectively; both $p < .05$).

Experiments 4a and 4b show that people are willing to pay a premium for watching a newly released over an older movie, despite the same movie descriptions. For *The Great Hypnotist*, the average newness premium was 53% for newly released versus released a few years ago, and 11% versus recent release. In dollar amounts, people were willing to pay $2.22 more for the new release, which is about one-third of the average price participants were willing to pay to see the new release.

One alternative explanation for the Experiment 4a mere newness premium is that a "new release" implies the movie came out within the last couple weeks whereas "recent release" could be anywhere from a couple weeks to many months. Therefore, this premium could be due to a difference in specificity of release date rather than mere newness. However, Experiment 4b rules this out by providing explicit release years.

Another alternative explanation is that people are used to paying movie theater prices ($8.12 in 2014 according to statista.com) for newly released movies versus movie rental prices for older releases ($1.50 for a DVD or $2 for a Blu-Ray at Redbox, as of November 2014). Supporting this explanation, when we asked participants to guess the actual release year in the no-info condition, they guessed an average between 2007 to 2008, although year was not correlated with WTP ($r = .10$, *ns*). To address this concern, we controlled for the self-reported frequency of movie watching overall and of watching movies in theaters (a proxy for willingness to pay movie ticket prices), and found that the results hold.

General Discussion

In this paper, we have documented a mere newness bias: a preference for novelty purely due to recentness of release. We have shown that in a risk-free environment, people generally prefer more recently released products, even controlling for product quality (Experiments 1-3), and even in a domain where older is generally related to higher quality (wine). We also show that mere newness bias has meaningful downstream consequences (Experiment 4). Finally, we show that mere newness bias persists even for die rolls, where there cannot be any difference in quality and where there is no social benefit to newness (Experiment 2).

Although we found the mere newness effect across a number of domains, we also found that the preference for newness is not as strong as a preference for higher quality. Interesting, the preference may also be unconscious, since participants given the option to state "no preference" often did so. The combination of these two caveats suggests that the underlying reason people (somewhat) prefer newer items is an overgeneralization of the oftentimes true real-world association between novelty and higher quality. Newer products often do incorporate more innovations than older products, and many products do in fact get worse with age. Going one step further, perhaps this bias could even be driven by evolutionary goals of eating fresher, safer to consume foods.

In the real world, there are many occasions where people are exposed to the release date information before they made their product choice. If people generally prefer the newly released, we may have missed a lot of really good quality but less recently released products. Newer products also tend to be higher priced, and one of the soundest strategies for saving money is to wait for prices to drop. A preference for new products prevents people from doing that. Therefore, a good strategy to counter this bias is that when facing unfamiliar choices, remember that newer does not always equal better.

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