

Some Hedonic Consequences of Perspective-Taking in Recommending

Michael Yeomans
Harvard University

Harvard Kennedy School
79 JFK St.
Cambridge, MA 02138
yeomans@fas.harvard.edu

Acknowledgements: This research would not have been possible without the generous support of Nick Epley and Jasmine Kwong, as well as feedback and input from Shoham Choshen-Hillel, Dan Gilbert, Francesca Gino, Karen Huang, David Levari, Julia Minson, Sendhil Mullainathan, and the participants of the 2015 Society for Judgment and Decision Making Conference, and the 2016 Behavioral Decision Research and Management Conference.

TITLE

Some Hedonic Consequences of Perspective-Taking in Recommending

ABSTRACT

What do people enjoy about making recommendations? Although recommendation recipients can gain useful information, the value of these exchanges for the information provider are less clear in comparison. In this paper we test whether a common recommendation heuristic - egocentric projection - also has hedonic consequences, by conducting experiments that compare recommendations (suggestions for another person) to reviews, in which people merely express their own preferences. Over five studies, people preferred reviewing over recommending. Recommenders enjoyed themselves less when they had to take their recipients' perspective, to the extent that the recipients' tastes were different from their own. These results suggest that self-expression can be intrinsically rewarding for recommendation makers, and that recommendation seekers can elicit more information by asking for reviews instead.

HIGHLIGHTS

- Advisors preferred to state their own choice rather than recommend for someone else
- Advisor-recipient similarity moderated the negative experience of perspective-taking
- The hedonic value of self-expression can exacerbate to the false consensus effect

INTRODUCTION

Practically all the information we accumulate in life comes, in one way or another, from other people (Bonaccio & Dalal, 2006; Berger, 2014). Choices can often be improved by learning from others who have experienced the choice set in the past, and recommendations have wide-ranging effects on behavior (Godes et al., 2005; Chevalier & Mayzlin, 2006; Trusov, Bucklin & Pauwels, 2009; Chintagunta, Gopinath & Venkataraman, 2010). Many lines of research have illuminated the ways in which social learners seek, receive, and benefit from other people's information.

But how does this exchange benefit the advisor, who provides the information? After all, recommending requires time and effort, and yet many people still choose to go out of their way to advise other people's decisions, often anonymously and without compensation. The benefits of advice can extend and multiply beyond the advisor herself (Avery, Resnick & Zeckhauser, 1999). But for recipients to benefit from the wisdom of others, they must take into account the reasons that people enjoy sharing that wisdom in the first place. So - what factors can affect the hedonic value of making a recommendation? And are there ways to seek advice that would improve the advisor's experience, and make them more willing to share?

Current Framework

Though many factors may play a role in these questions, we focus on two ways of communicating information about a choice set: recommending and reviewing. By our definition, a "recommender" suggests an item from a choice set to someone else (a "recipient"), based on what they think that person might like. By contrast, a "reviewer" merely tells their recipient how

they evaluate the item they personally like the most. A recommendation is, by definition, customized to the recipient's tastes - thus the unique cognitive demand of a recommendation, compared to a review, is that a recommender must take the perspective of their recipient. But despite its simplicity, reviewing can still be a potent source of information for the recipient, and the two are often interchangeable. Social learning can be accomplished by both recommending and reviewing, and holding constant the situation and choice set, an advisor can choose whether or not to tailor their information to their recipients' tastes. More relevant to this research, recipients looking for advice can choose whether to solicit a review or a recommendation, and it is the effect of this choice on the advisor's experience that is the focal point of this investigation.

Although a request for a recommendation implies a request for perspective-taking, it does not necessarily follow that recommenders will always take a full and proper account of their recipients' tastes. In fact the process of recommending is often akin to anchoring and adjustment, in which one's own preference is used as an egocentric anchor, and adjusted to account for how a recipient's tastes might differ (Epley, Keysar, van Boven & Gilovich, 2004; Naylor, Lamberton & Norton, 2011; Goel, Mason & Watts, 2011; Tamir & Mitchell, 2013; Spiller & Belogolova, 2017). Furthermore, the mind evaluates objects spontaneously and effortlessly (Zajonc, 1980; Fazio, Lenn & Effrein, 1984), so even when people do not use an egocentric anchor, that information is available to the recommender (e.g. West, 1996; Lerouge & Warlop, 2006). In this sense, reviewing can be thought of as egocentric anchoring with no adjustment at all.

Egocentric anchoring is often a sensible heuristic for predicting someone else's tastes even in domains where preferences can diverge (Davis, Hoch & Ragsdale, 1986; Hoch, 1987; Dawes, 1990; Gilbert, Killingsworth, Eyre, & Wilson, 2009). The contents of one's own mind

can provide a rough facsimile for understanding minds of others. But it is also true that recommenders often do not fully adjust to differences in the recipients' perspective. That is, while egocentric anchoring is somewhat informative it is often followed by insufficient adjustment, leading to the "false consensus effect" (Marks & Miller, 1987; Kreuger & Clement, 1994).

The false consensus effect is typically explained as a cognitive limitation - our lack of information about others' minds prevents us from fully accounting for their perspective (Epley & Waytz, 2010). But most previous research on this topic focuses on judgment tasks where the amount of adjustment is observed, rather than manipulated. These paradigms will very often confound cognitive mechanisms (reviewing is informative and available) with hedonic mechanisms (reviewing is more enjoyable). In the current research, we directly manipulate the amount of adjustment, and observe the hedonic consequences of these two tasks directly. This allows us to test a new mechanism that might exacerbate the cognitive roots of the false consensus effect: people choose to review because it is more enjoyable than recommending.

Theory and Hypotheses

The fundamental question in this research is whether people have a preference for the type of information they want to share - that is, whether it is more desirable to be a reviewer or a recommender. The literature suggests compelling mechanisms for both possibilities.

The first possibility we consider is whether people might prefer to recommend, rather than review. One clear reason why this could be true is that recipients themselves typically prefer recommendations. They report this as a stated preference (Eggleston, Wilson, Lee & Gilbert,

2015), and are more persuaded by recommendations than reviews (Celen, Kariv & Schotter, 2010; Chen, Wang & Xie, 2011; Packard & Berger, 2016). The value to the recipient is important because online reviewers frequently state in surveys that helping others is what drives them to engage in word of mouth (Sundaram, Mitra & Webster, 1998; Hennig-Thurau, Gwinner, Walsh & Gremler, 2004). More broadly, people enjoy expending effort towards pro-social goals in many domains (Andreoni, 1990; Dunn, Aknin & Norton, 2012), and extra effort can even increase the desirability of a pro-social task (Olivola & Shafir, 2013). So if a person's goal is be helpful to their recipient, then recommending seems like the obvious choice.

The recipients' preference could impact the recommender's preference for non-altruistic reasons, as well. Many people engage in word of mouth to manage their reputation (Wojnicki & Godes, 2008; Wang, 2010; Angelis, Bonezzi, Peluso, Rucker & Costabile, 2012; Packard & Wooten, 2013). Successful recommending may demonstrate many positive qualities to others, such as social status, or interpersonal closeness. Because reviewing does not require perspective taking, it may not fulfill these inherently social goals, and might be an inferior substitute for recommending.

On the other hand, reviewing may capture the most enjoyable aspects of recommending. Sharing information about a choice with someone else can be its own reward (Tamir, Zaki & Mitchell, 2015). Self-expression, in particular, has a dominant role in natural conversation (Dunbar et al., 1997); in recommending (Sharma & Cosley, 2015; Berger & Packard, 2016), and even in how numeric product ratings are interpreted (Rozenkrants, Wheeler & Shiv, 2017). Even outside of the consumer context, people intrinsically enjoy thinking about themselves more than

other people (Tamir & Mitchell, 2012). And both reviewers and recommenders might enjoy reminiscing about pleasant experiences from their past (Strack, Schwarz & Gschneidinger, 1985)

There could also be negative aspects of recommending, that are not present while reviewing. For one, if people enjoy describing their own favorite items, then they may not enjoy recommending if they must instead describe other, less-favored items (e.g. Hsee & Weber, 1997; Kray & Gonzalez, 1999; Kray, 2000; Laran, 2010; Polman, 2010, 2012; Danziger, Montal, & Barkan, 2012). The audience is also more explicit in recommending, and people may not enjoy contemplating how their choice will be judged by an observer (Zajonc, 1960; Guerin & Innes, 1989; Lerner & Tetlock, 1999).

The outcome of a recommendation is also less likely to be accurate than a review, in the sense that one's own tastes are directly accessible, while a recommender must work to take their recipients' perspective (Epley et al., 2004; Epley & Waytz, 2010). Recommenders may not have enough information about their recipients' tastes, and this ambiguity could be unpleasant (Ellsberg, 1961; Lowenstein, 1994). Recommenders may also believe their recipient has dissimilar tastes (Woodside & Davenport, 1974; Brown & Reingen, 1987). Furthermore, these two tasks may intertwine with a variety of goals consumers pursue in word of mouth. For example, many consumers are eager to embrace their unique tastes (Tian et al., 2001; Cheema & Kaikati, 2010; White & Argo, 2011), while others prefer to emphasize their similarity to others (Bearden & Rose, 1990; Lascu & Zinkhan, 1999). These latent motivations may influence how desirable it is for a recommender to take the perspective of someone with a different point of view. These considerations could be top-of-mind when recommenders take the perspective of

their recipients, and could moderate whether a consumer can enjoy the (otherwise pleasant) experience of sharing information.

Summary and Overview

The experiments in this paper ask people to evaluate the experience of writing a review and writing a recommendation. We report five experiments, in three different domains - movies (Study 1), restaurants (Studies 2,4 & 5), and jokes (Study 3). Throughout our research we consistently find that participants prefer reviewing rather than recommending. Reviewing is rated as a more enjoyable task, and when given the choice most participants would rather state their own preference than make a recommendation to someone else (Study 5). This difference holds even when participants choose to recommend the exact same item as they would choose for themselves (Studies 2A & 4). We show that the mere presence of an audience does not make a review less enjoyable - instead, recommendations are tainted when those reviews must take into account the recipients' perspective (Study 2B). We also show that the effect was moderated by the similarity - but not the ambiguity - of the recipients' tastes (Study 3), and by the recommenders' motivation to express their unique tastes (Study 4). Overall, these studies demonstrate why reviewing can be a preferable way to convey information about a choice set, and we discuss the implications of this result in the broader context of social learning and decision-making.

Across all studies, we report how we determined our sample size, all data exclusions, all manipulations, and all measures. The exact study stimuli from each study, along with all data and analysis code, are available as Online Supplemental Material at <https://osf.io/5fp7x/>

STUDY 1

As an initial test of our hypothesis, we recruited participants to watch clips from short movies and either describe the movie they liked most (review), or describe the movie they thought someone else would like most (recommendation). Both conditions were designed to keep the sequence of tasks identical - watch four movies, choose one, write an explanation. However, the key difference was that participants in the recommendation condition had to take their recipients' perspective into account, while the participants in the review condition simply reported their own perspective.

Methods

Participants were recruited in a museum in the midwest, and they all volunteered to participate in a survey about short movies. Each participant first sat at a computer and watched 90-second clips from four 5-minute-long movies. After watching all four, they chose one and wrote about why they chose it, and answered a few questions about their experience.

At the start of the experiment, participants were randomly assigned to one of two conditions. In the *Review* condition, subjects were told their goal was to “choose one [movie] as your favorite” and write about why they made their choice. In the *Recommendation* condition, subjects were told to “make the best possible recommendation to another visitor” and again write about why they made their choice. After the study was over, the recommendations and reviews were in fact given to recipients in another experiment (see Appendix B).

Although the participants' goals differed across the conditions, the sequence of tasks was held constant. In both conditions, participants watched all four movie clips in a random order, wrote their choice on a slip of paper, along with an explanation of why they chose that movie. Paper was used so that it would be obvious how the recommendations were going to be shown to recipients at a later time. After they were done writing, participants evaluated their experience by answering the following questions, all on a scale from 1 to 7:

How much did you enjoy the opportunity to [recommend/evaluate] the movies?

Overall, how much did you enjoy participating in this study?

Overall, how much did you enjoy your visit to the museum today?

How much did you enjoy the [first/second/third/fourth] movie you watched?

Results

132 participants were recruited for the study. However seven did not finish the study, with no differential attrition (omnibus $\chi^2=0.73$). This left 125 participants in the main sample for our analyses (40% female; average age=34.2). The descriptions were transcribed and there was no difference between the average number of words written by recommenders ($M=17.1$, $SD=10.4$) and reviewers ($M=19.4$, $SD=12.2$; $t(123)=1.1$, $p=.264$).

Overall, participants who were asked to review enjoyed the task more ($M=5.16$, $SD=1.34$) than those who were asked to recommend ($M=4.52$, $SD=1.75$; $t(123)=2.3$, $p=.022$). Reviewers also enjoyed participating in the study ($M=5.28$, $SD=1.33$) more than recommenders ($M=4.77$, $SD=1.54$; $t(123) = 2.0$, $p=.049$); and this effect seemed to spill over into their reported enjoyment of their trip to the museum, as well (recommend: $M=5.97$, $SD=0.98$; review: $M=6.31$,

$SD=1.19$; $t(123)=1.8$, $p=.082$). These three enjoyment ratings were highly correlated (Chronbach's $\alpha = 0.78$) and collapsed into a single standardized index (plotted in Figure 1), which shows that reviewers reported greater enjoyment ($M=.22$, $SD=.88$) than recommenders ($M=-.21$, $SD=1.07$; $t(123)=2.5$, $p=.015$; Cohen's $d=0.43$). We also analyzed the choices that participants made in each condition; however the distribution of chosen movies was not meaningfully different between recommenders and reviewers ($\chi^2 = 0.3$, ns).

[INSERT FIGURE 1 AROUND HERE]

Discussion

The results of the first study provide a compelling natural demonstration of our proposed effect: participants enjoyed reviewing more than recommending. That is, they enjoyed writing about their own tastes more than they enjoyed writing about someone else's tastes. However, in this natural setting there are several differences between reviews and recommendations, which confound our interpretation of why recommending was less enjoyable. In the following studies we isolate these alternative explanations, to understand why reviewing was the more enjoyable task.

STUDY 2

In Study 2 we present two experiments in a new paradigm, which we use to test three possible mechanisms for the hedonic difference between reviews and recommendations. Specifically, we consider two possible alternatives to our original hypothesis, which is that taking a recipients' perspective is less enjoyable than giving one's own perspective.

One simple explanation of the original result is that the *items that subjects chose* were different across the two conditions. That is, if people preferred to write about their most favored items more than other, less-favored items, that could account for why reviewing was the more enjoyable task. This account would predict that when people describe the same item in both conditions, their experiences will be equally enjoyable. We could not address this concern using the data in Study 1, so in Study 2A we use a within-subjects design to explicitly observe how people evaluate the two tasks when they choose the same restaurant.

Another alternative explanation is that the mere mention of a recipient may cause recommenders to feel more scrutinized, whereas a reviewer might not even consider their recipients' reaction. In the first studies, participants in the review condition were not reminded of their future recipients within the question prompt, which confounds two possible process accounts: a perspective-taking effect (i.e. dislike of forecasting recipients' tastes) and an audience effect (i.e. dislike of recipients scrutinizing their choices). We test this account in Study 2B by prompting both reviews and recommendations with an identical audience, to see whether this accounts for participants' differing experiences in the two tasks.

In this study we asked for reviews and recommendations in a new domain - restaurants in a familiar city - that has several advantages for testing these proposed mechanisms. First, this is a domain where knowledge gaps are commonplace (e.g. experience in different cities) and information-seeking - including both reviews and recommendations - is prevalent, in person and online. Furthermore, participants were drawing the choice set from their memory of items they have chosen in the past, so the experimental manipulations would not taint their experience of

the items themselves. Finally, the choice set is wider than the movie list, so it is likely that there would be items participants could choose enthusiastically in both conditions.

Study 2A Methods

Participants were first asked to identify their “hometown” - defined as a place where they have lived and with which they are familiar. The restaurants in this hometown served as their choice set for the rest of the study. They were also told to answer honestly based on their current knowledge, and not to look up anything on the internet, to prevent them from simply passing off someone else’s recommendation as their own.

As in Study 1, the sequence of tasks in every condition was matched - participants were prompted to choose one restaurant from their hometown, describe the reasons for their choice, and then evaluate their enjoyment of the task. However, we once again manipulated participants’ goals in this task across conditions. In the *Review* condition, subjects were given the following prompt:

Imagine you were visiting that town tonight, and were deciding where to go to dinner.

Which restaurant would you choose for yourself? Your goal is to choose the place you would enjoy the most.

In the *Recommendation* condition, the choice set was the same, but participants were prompted with a different goal, which was to take their recipients’ perspective:

Imagine someone you knew was visiting that town tonight, and didn't know where to go to dinner. If that person asked you for a recommendation, which restaurant would you recommend for them? Your goal is to recommend the place they would enjoy the most.

All participants completed both conditions (randomly ordered) in a within-subjects design. After each condition, participants answered the following questions on a 1-7 scale (“not at all” to “very much”), with the second item reverse-scored:

How much did you enjoy [choosing/recommending] a restaurant for

[yourself/someone else]?

How much did you dislike [choosing/recommending] a restaurant for

[yourself/someone else]?

Overall, how much did you enjoy the task you just completed?

Between the two conditions, participants were not specifically told to make a different or similar choice in the second condition - only that they were being asked “another question” about their hometown. Finally, after participants completed both conditions, they answered a few questions about demographics and their hometown.

Study 2A Results

We intended to recruit 160 participants from Mechanical Turk. In truth 204 participants began the study, however 17 failed the attention check (see Appendix A) and 40 participants dropped out during the survey, with no differential attrition (omnibus $\chi^2=0.26$). This left 159 participants in the main sample for our analyses (53% female, average age=36.6).

Our primary dependent variable was once again a standardized index of the three enjoyment questions (Chronbach's $\alpha = 0.81$). A paired t-test reveals a replication of the result from Study 1 - reviewing was more enjoyable ($M=.07$, $SD=.84$) than recommendation ($M=-.07$, $SD=.86$; $t(158)=3.3$, $p=.001$; Cohen's $d= 1.4$). This effect did not vary based on the task order ($t(157)=.56$, $p=.579$), so we collapse across order throughout. There was also no difference in the amount of time that participants took to make and explain their recommendations ($M=81.8s$, $SD=63.3s$) compared to their reviews ($M=88.7s$, $SD=75.2s$; $t(158)=1.0$, $p=.309$).

The chosen restaurants were coded by two independent research assistants to determine which participants had chosen the same restaurant in both conditions (Chronbach's $\alpha = 0.96$). As expected, many participants - 47% - chose the same restaurant in both conditions. If the main effect was driven by participants' choice of items, the difference between the two conditions would be attenuated among these "same choosers". We tested this hypothesis using a between-subjects t-test, and found that the difference between conditions was no smaller among same-choosers ($M=.10$, $SD=.48$) as among different-choosers ($M=.18$, $SD=.62$; $t(157)=0.9$, $p=.352$). Furthermore, even though the power was reduced, we still observed a marginally significant difference between conditions among only the same-choosers ($t(73)=1.8$, $p=.070$). This study provides evidence that recommending is not more desirable when the item itself is matched to the recommender's personal choice of item. Instead, this suggests the effect is related to the mere consideration of someone else's point of view.

Study 2B Methods

The design of Study 2B was almost identical to that in Study 2A. The primary difference was that a new condition was added, and the design was between-subjects, with each participant randomly assigned to one (and only one) condition.

Once again, the key difference between the three conditions was the goal for their choice of restaurant. The *Review* condition and the *Recommendation* condition were the same as in Study 2A. However, this study included a new condition, the *Audience* condition, that combined key features from the other two. Like the *Review* condition, participants were asked to describe their own personal choice. But like the *Recommendation* condition, participants were prompted to do so by a recipient looking for information.

Imagine someone who was visiting that town tonight, and didn't know where to go to dinner. If they asked you which restaurant was your favorite, which restaurant would you choose for yourself? Your goal is to choose the place you would enjoy the most.

As in Study 2A, participants in every condition gave the name of a restaurant and wrote a short description of why they made that choice. After they were finished writing their description, they rated their experience on the following three questions on a 1-7 scale (“not at all” to “very much”):

How much did you enjoy choosing a restaurant for [yourself/someone else]?

How much did you like writing about the restaurant you chose?

How much did you enjoy your task in this experiment?

Study 2B Results

We intended to recruit 270 participants from Mechanical Turk. In truth 315 participants began the survey, however 23 failed the attention check (see Appendix A) and 47 participants dropped out during the survey, with no differential attrition (omnibus $\chi^2=0.26$). This left 246 participants in the main sample for our analyses (57% female, average age=33.1).

The three dependent variables were again collapsed into a single standardized index of enjoyment (Chronbach's $\alpha = 0.85$). The average ratings by condition are plotted in Figure 2. A one-way analysis of variance with three levels revealed that the differences between conditions were statistically significant ($F(2,243)=4.4, p=.013$). Planned between-group comparisons show that the main effect from Study 1 is again replicated - participants enjoyed reviewing ($M=.14, SD=0.84$) more than recommending ($M=-.26, SD=1.14, t(167)=2.5, p=.017$, Cohen's $d=0.38$). Furthermore, ratings from participants in the *Audience* condition ($M=.12, SD=0.96$) were no different from the *Review* condition ($t(162)=0.1, ns$), and higher than the *Recommendation* condition ($t(157)=2.4, p=.017$, Cohen's $d=0.38$). Separate analyses for all three enjoyment questions showed an identical pattern to the combined index - reviewing is more enjoyable than recommending, even when the recipients' solicitation of the review is made explicit.

[INSERT FIGURE 2 AROUND HERE]

Study 2 Discussion

These two studies were designed to isolate the psychological mechanism underlying participants' preference for reviewing over recommending. In Study 2A, we considered whether this preference was simply because reviewing allowed participants to ruminate over their most favorite item from the choice set, rather than a (potentially less-favored) item that another person

might like more. However, our results reject that possibility - we observed the same people describing the same restaurant in both conditions, and they still enjoyed doing so from their own perspective, more than from their recipients' perspective. This result makes it clear that the main effect is caused by consideration of someone else's point of view, rather than consideration of the item itself.

Study 2B builds on this result by parsing two distinct aspects of this consideration. Specifically, the presence of an audience observing one's choices could be aversive, even if the participant was not tasked to take this observer's perspective. But these results reject the possibility that audience effects could explain the different evaluations of the two tasks. Instead, participants' aversion to recommending was specifically caused by the requirement that they take their recipients' perspective throughout the task.

Together, these results implicate perspective-taking as the key mechanism driving our results. If this hypothesis is correct, then this would imply that the main effect should also be moderated based on how participants construct their recipients' perspective. In the next study we test this prediction by randomly varying the amount and content of the information recommenders have about their recipient.

STUDY 3

In this study we consider two potential moderators of the main effect. One is that the recipients' preferences were *ambiguous*, because participants did not know much about their recipients. Another is that the recipients' preferences were *dissimilar*, because people naturally differ in their tastes in these domains. These two hypotheses make competing predictions about

how information about the recipient should affect the recommender's experience, so we tested them directly by giving some participants information about their recipient (to test ambiguity) and also varying the content of that information (to test dissimilarity).

We conducted this study in a new domain where it was relatively easy to convey information about recipients' tastes: jokes. That is, while we could not send all our participants to eat at the same set of restaurants, we could show them all the same set of jokes. Some recommenders saw a set of "sample" jokes, along with the ratings their recipient gave to those jokes, to get some insight into their sense of humor. Other recommenders were "blind", and only knew that their recipient was another study participant. Furthermore, participants in the sample condition were randomly assigned to recipients, so there was natural variation in how similar the recommenders were to their recipients.

Methods

All participants in this study were randomly assigned to one of three conditions, in a between-subjects design. In the *Review* condition, participants were asked to read a list of six menu jokes (all jokes listed in Appendix C). Then, they would choose their own personal favorite joke from the menu of six, and describe why they made that choice. In the two *Recommendation* conditions, the protocol of the task was the same, except participants were told that they were recommending a joke for another participant, rather than for themselves. They were also told that recipient would later choose one joke to read in a later study, using the recommendation as a guide.

Across the two recommendation conditions, participants varied in the amount of information they had about their recipient. In the *Sample Recommendation* condition, participants were each assigned a specific recipient, drawn randomly from a dataset collected in an earlier study. Before making their recommendation, these participants were shown a set of four sample jokes, along with their recipient's ratings for the sample jokes, so that they could "get a sense of their recipient's sense of humor". The *Blind Recommendation* condition was exactly the same as the *Sample Recommendation* condition, except participants did not see any sample jokes, and only knew their recipient as "another person taking this study".

In all three conditions, we again collected participants' evaluations of their task immediately after writing a description of their choice. Participants answered the following three questions on a scale from 1-7 (the second item was reverse-scored):

How much did you enjoy [choosing/recommending] a joke for [yourself/someone else]?

How much did you dislike [choosing/recommending] a joke for [yourself/someone else]?

Overall, how enjoyable was the task you just completed?

Additionally participants in the two recommendation conditions answered the following manipulation check:

How similar do you think the other person's taste in jokes was to your own taste in jokes?

At the end of the study, all participants gave their own personal rating to every joke they saw in the study (including the sample jokes for participants in the *Sample* condition) on a scale from 1 to 7, and answered some demographic questions.

Results

We intended to recruit 240 participants from Mechanical Turk. In fact, 279 participants started our survey, however 15 recruited participants failed the attention check (see Appendix A), and 28 participants did not complete our survey, with no differential attrition (omnibus $\chi^2=0.62$). This left 236 in the main sample for our analysis (52% female, mean age=35.9).

Our primary dependent variable was once again a standardized index of the three enjoyment questions (Chronbach's $\alpha = 0.86$). A one-way analysis of variance with three levels confirmed that the differences between conditions were statistically significant ($F(2,233)=4.8$, $p=.009$). As a replication of the main effects above, we once again find that participants in the Review condition ($M=0.74$, $SD=2.22$) enjoyed their assigned task more than the participants in the two recommendation conditions ($M=-0.37$, $SD=2.80$; $t(234)=-3.1$, $p=.002$; Cohen's $d=.42$). This held for the simple contrasts, as well - reviewing was more enjoyable than the Sample Recommendation condition ($M=-.47$, $SD=2.87$; $t(157)=3.0$, $p=.003$; Cohen's $d=.38$), and the Blind Recommendation condition ($M=-.26$, $SD=2.74$; $t(154)=2.5$, $p=.013$; Cohen's $d=.45$). Additionally, we found no significant difference between the average of the two recommendation conditions. Recommenders did not seem to enjoy their task any more when they had a sample of their recipient's joke ratings than when they did not ($t(155)=-.47$, $p=.642$). That is, more knowledge about the recipient did not seem to improve their experience.

We could also test whether the content of that knowledge affected their experience, because recipients were randomly assigned to participants in the sample condition. This created natural variation in the similarity between the recommender and the recipient. We calculated this similarity using the Spearman (rank-order) correlation between the recipients' ratings of the four sample jokes (given on a scale from -10 to +10) and the recommenders' ratings of the same

sample jokes (given on a scale from 1 to 7). This objective measure of similarity significantly predicted those recommenders' enjoyment of the task ($r=.275$, $t(78)=2.5$, $p=.014$). The participants' subjective ratings of recipient similarity confirmed these analyses, and also correlated strongly with enjoyment of the recommendation task ($r=.393$, $t(78)=3.8$, $p<.001$).

The relationship between objective similarity and the recommenders' enjoyment is plotted in Figure 3, showing individual responses as well as an OLS best fit line with 95% confidence intervals. Additionally, this plot shows the group averages for the other two conditions. Participants in the *Blind Recommendation* condition had little information about their recipients, so this group is plotted at the average level of recommender-recipient similarity (i.e. $x=.28$). Participants in the *Review* condition were, in a sense, their own recipients, so this group is plotted at the maximum level of recommender-recipient similarity (i.e. $x=1.0$). Interestingly, both group means lie close to the estimated regression slope, suggesting that recipient dissimilarity is sufficient to account for the difference between conditions. In other words, recommending can be as just as enjoyable as reviewing when the recipient has identical tastes to the recommender.

[INSERT FIGURE 3 AROUND HERE]

Discussion

This study shows that information about the recipient has a fundamental moderating effect on the hedonic experience of recommending. However, this was not a consequence of the amount of that information, but of what that information said about the recipients' tastes.

Recommenders assigned to a recipient with similar tastes enjoyed their task just as much as

reviewers, while recommenders assigned to a recipient with dissimilar tastes enjoyed the task less than recommenders who had no information at all. Recommenders are not dismayed because they are unable to look into their recipient's mind, but because they see a mind that is different from their own. And the size of that difference can determine how enjoyable a recommendation will be.

STUDY 4

In this study we consider chronic individual differences that might moderate the main effect in this study. That is, whether some people are more likely to show a larger difference between their evaluations of the reviewing task and the recommending task. To do so, we conducted another study that considered what goals consumers might be pursuing in word of mouth, and whether some of those goals might be more amenable to one task than the other. First, consumers may take value from their own self-perceptions as influential recommenders, so we included the Market Maven Scale (Feick & Price, 1987). Second, some consumers actually prefer to have unique tastes, while others prefer to minimize their differences with others. To measure this construct we used a short version of the Consumer Need For Uniqueness scale (Tian et al., 2001; Ruvio, Shuham & Makovec Brenčič, 2008). Both scales were chosen to capture stable differences in the goals that reviewers and recommenders might have, and thus might moderate the main effect of reviewing versus recommending.

Methods

The design of Study 4 drew from the restaurant paradigms used in Study 2. Because we wanted to measure individual-level treatment effects, all participants completed both conditions -

Review and *Recommend* - in a randomized order, like in Study 2A. The *Recommend* condition in Study 4 was also identical to the one used in both Study 2A and Study 2B. However, the *Review* condition used in Study 4 was identical to the *Audience* condition in Study 2B, as a modest test of the robustness of our experimental paradigms. Just like in Study 2A, for each condition participants wrote their choice of restaurant, with a short explanation, and evaluated their enjoyment of the task (using the same dependent measures as Study 2A) before moving on to the next condition.

The most important feature of the design of Study 4 was the individual difference measures included at the end of the survey. After both conditions were finished, participants completed both the 17-item Short-Form Consumer Need For Uniqueness Scale (Ruvio, Shuham & Makovec Brenčič, 2008) and the six-item Market Maven Scale (Feick & Price, 1987), with the order of the two scale batteries counterbalanced (see Appendix D for full text). Finally, they completed a short set of demographic questions at the end of the survey.

Results

We intended to recruit 200 participants from Mechanical Turk. In truth 266 participants began the study, however 27 failed the attention check (see Appendix A), 5 participants did not follow directions, and 44 participants dropped out during the survey, with no differential attrition (omnibus $\chi^2=0.94$). This left 190 participants in the main sample for our analyses (46% female, average age=34.7).

Our primary dependent variable was once again a standardized index of the three enjoyment questions (Chronbach's $\alpha = 0.87$). A paired t-test reveals a replication of the result

from Study 2A - reviewing was more enjoyable ($M=.11$, $SD=.83$) than recommendation ($M=-.11$, $SD=.94$; $t(189)=4.5$, $p<.001$; Cohen's $d= 1.4$). This effect did not vary based on the task order ($t(188)=1.4$, $p=.157$), so we collapse across order throughout. There was also no difference in the amount of time that participants took to make and explain their recommendations ($M=97.0s$, $SD=70.6s$) compared to their reviews ($M=92.5s$, $SD=83.6s$; $t(189)=0.8$, $p=.432$).

The chosen restaurants were again coded by two independent research assistants to determine which participants had chosen the same restaurant in both conditions (Chronbach's $\alpha = 0.97$), and again many participants - 44% - chose the same restaurant in both conditions. We replicated the result from Study 2A, such that the difference between conditions was no smaller among same-choosers ($M=.23$, $SD=.54$) as among different-choosers ($M=.21$, $SD=.75$; $t(188)=0.2$, $p=.818$), and the simple difference between conditions among only the same-choosers was this time strongly significant ($t(83)=3.9$, $p<.001$).

The two scale batteries were collapsed by standardizing each item individually, and then averaging the items into single indices - "mavenism" and "need for uniqueness", respectively. We analyzed these variables in relation to the participants' enjoyment of the task in a series of OLS regressions, which are reported in Table 1. Using the same standardized index of enjoyment as above, we calculated two outcome measures - the average enjoyment across both conditions, and the difference in enjoyment between conditions. The two scales were correlated with one another ($r=.292$, $t(188)=4.2$, $p<.001$), but their relationships to the two outcomes were quite different.

Mavenism was correlated with overall enjoyment, across both tasks ($\beta = .84$, $SE = .19$, $t(186) = 4.4$, $p < .001$) but did not moderate our main treatment effect, the difference between

conditions ($\beta = .08$, $SE = .08$, $t(186) = 1.0$, $p = .306$). On the other hand, this treatment effect was attenuated among participants high in need for uniqueness ($\beta = .25$, $SE = .08$, $t(186) = 4.5$, $p < .001$), but was not at all related to overall enjoyment ($\beta = .06$, $SE = .19$, $t(186) = 0.3$, $p = .749$). For clarity, we present a spotlight analysis of this interaction effect in Figure 4, which shows the regression estimate of the mean and 95% confidence interval for people one standard deviation above and below the average consumer need for uniqueness. This shows that the effect is primarily driven by people low on on this uniqueness scale.

Discussion

The results of this study validate the robustness of the paradigms presented in Study 2, and extend our theoretical insight by identifying moderators of participants' enjoyment of our experimental conditions. Participants' desire to be influential consumers was related to overall enjoyment of the experiment, but not at all to the difference between conditions. Instead, this difference was modified by participants' trait level need for uniqueness. That is, participants who wanted to differentiate themselves from others were happy to take the perspective of other consumers, while participants who wanted to feel more similar to others were also less likely to enjoy recommending for someone else. Combined with the results of previous study, this provides a compelling set of boundary conditions for the main effect. When the difference between the recommenders' tastes and the recipients' tastes is small (Study 3) or when it is desirable (Study 4) recommending is no worse than reviewing. But when these conditions do not hold, reviewing is generally the more preferable task.

STUDY 5

In this final study, we consider a practical implication of our findings by asking participants to choose for themselves whether they would like to recommend, or to review. This will test whether participants' preference for reviewing in retrospect could affect their behavior in prospect. The previous studies make a clear prediction that, when they are given the choice, participants will rather review than recommend.

Methods

The protocol was very similar to Study 2, with a critical difference: the instructions explained that there were three tasks, and that participants would choose their task (see Appendix E for full text). Participants were told that all three tasks required the same amount of time and effort, and they should simply choose the task that they would prefer to complete.

The first two options (order counterbalanced) were: “recommend a restaurant for another person”, or “describe the restaurant you would choose for yourself”, based on the same scenario from Study 2 in which either they, or someone else, was “going out to dinner in your hometown”. Participants wrote either a recommendation or a review, depending on which they chose, and answered follow-up questions. Afterwards they completed the task they did not choose, but they did not know this until after the first part was over. The results from these post-choice tasks are not relevant to our hypotheses so we leave them out. The third option in their choice was to “write a response to a news article”, which was pulled from the list of most

popular articles on the NPR website that week. Participants who chose this option simply read the article, wrote a response, and reported their enjoyment.

Results

100 participants were recruited on Mechanical Turk, but seven did not finish the task and another five failed the attention check (see Appendix A), leaving 88 participants in the sample for analysis (58% female, average age=35.3). The results show that the majority of participants preferred to review and describe their own choice of restaurant (63%) rather than to recommend one to another person (23%) or to comment on the news article (15%, $\chi^2(2)=34.5$, $P<.001$).

These results demonstrate some behavioral implications of the first four studies: when asked, participants preferred to review instead of recommend. It also shows that the choice between different information-sharing tasks can be driven by the hedonic value of the tasks, in addition to the value of the information itself. This result is also distinct from the false consensus effect. Our participants are not lead astray by egocentric projection to substitute reviews in place of recommendations. Instead, they are explicitly choosing to review, because it is the more desirable task.

GENERAL DISCUSSION

People share information with one another constantly, but while we know a great deal about the psychology of information recipients, our understanding of information providers is sparse. This research takes the advisor's point of view, to understand what people enjoy about offering advice to someone else. Previous research has shown that egocentric projection is

common among advisors, and we test whether this heuristic has hedonic consequences. In our experiments we compared two kinds of advice: reviews (i.e. expressing your own choice) and recommendations (i.e. suggesting a choice to someone else). Both of these can be informative for the recipient, but which is preferred by information providers?

The results presented here, across five experiments, show that people prefer reviewing more than they prefer to recommending. This difference is clear in retrospective evaluations (Studies 1-4), and in prospective choice (Study 5). Recommending was less enjoyable even when participants recommended the exact same item for someone else that they chose for themselves (Study 2A). This effect was not related to the presence of an audience (Study 2B), or the amount of knowledge about the recipient (Study 3). Instead the effect was driven by similarity - recipients have different tastes, and the more different they were, the less enjoyable was recommending (Study 3). And among recommenders who thought this difference was in fact desirable, the hedonic difference between recommending and reviewing disappeared (Study 4). Overall, these results suggest that reviewing, because it does not entail perspective-taking, is often an especially enjoyable way to conduct word of mouth.

Theoretical Contributions

The current research provides new insights into the psychology of why people make recommendations. The steadfast preference for reviewing, rather than recommending, shows that the hedonic value of self-expression has consequences for word of mouth (Dunbar et al., 1997; Tamir & Mitchell, 2012; Tamir, Zaki & Mitchell, 2015). Furthermore, our results show that the enjoyment of reviews can be replicated in recommendations if a recommender believes their

recipient has the same tastes. This extends the well-understood role that similarity plays in how people seek and use recommendations (e.g. Feick & Higie, 1992; Duhan et al., 1997; Suls, Martin & Wheeler, 2002; Gino, Shang & Croson, 2009; Yaniv, Choshen-Hillel & Milyavsky, 2011). But this moderator takes on a very different character among recommenders. After all, if recommending is enjoyable when recipients are similar, then reviewing - in which the “recipient” is identical - will be at least as good, and often better. So then why not simply review instead?

Of course, many real-world recommendations are *de facto* reviews. People frequently use egocentric projection to make sense of other minds (Hoch, 1987; Epley et al., 2004). Previous research has typically focused on how egocentric projection affects the accuracy of recommendations - that is, whether it is an informative heuristic (Davis, Hoch & Ragsdale, 1986; Dawes, 1990) or a false consensus (Ross, Greene & House, 1977; Krueger & Clement, 1994). Instead, our research focuses on how egocentric projection affects the experience of the recommender. In fact, advisors may be biased to select into situations when their recipients’ tastes are similar to their own, or even to construe a recipients’ tastes as more similar than they actually are. And these biases may be particularly strong if consumers are chronically motivated to see themselves as similar to other people (Bearden & Rose, 1990; Lascu & Zinkhan, 1999). These biases may paradoxically drive word of mouth, even though the resulting advice will be particularly vulnerable to the false consensus effect.

Limitations and Future Research

One clear limitation of the current research is that information sharing is treated as a one-shot event, rather than as part of a repeated interaction. This is a reasonable model of many real-

world recommendations - especially online - but the design does not take into account the interpersonal benefits of recommending, which may be substantial. For example, asking for advice can facilitate social bonding (Goldsmith & Fitch, 1997; Brooks, Gino & Schweitzer, 2015), but so can sharing personal narratives (Collins & Miller, 1994; Peters & Kashima, 2007; Sprecher, Treger, Wondra, Hilaire & Wallpe, 2013), or even egocentric projection itself (Murray, Holmes, Bellavia, Griffin & Dolderman, 2002). These other components of social interaction may be even more important when word of mouth is conducted through more intimate channels, including face-to-face recommendations among close others.

In a similar vein, our experiments did not allow recommenders or reviewers to get feedback on the impact - or lack thereof - their information had on recipients. It is certainly possible that feedback could influence the experience of advisors. Positive feedback - that their advice was followed - is likely to improve their experience (Brooks, Gino & Schweitzer, 2015). But advice is often not followed (Bonaccio & Dalal, 2006), and that feedback can impair their experience (Blunden et al., 2018). So the average net effects of feedback are not obvious, and may be context specific. Furthermore feedback is not guaranteed in many settings - whether writing a review online, or sharing travel tips with an acquaintance, for example. And even when the recipient could easily give feedback, they may be reluctant (Tesser & Rosen, 1975). More broadly, there are long-term consequences of both reviewing and recommending for a variety of social goals, which should be explored in future research.

Another extension of the current work is to understand how advisor preferences affect recipient information-seeking. Advice research has mostly focused on recipients (Bonaccio & Dalal, 2006; Berger, 2014), and typically involves paradigms in which the presence of advice is

taken as a given. For example, some such research shows that recipients prefer recommenders over reviewers, and are more persuaded by explicit advice than observing others' choices (Celen, Kariv & Schotter, 2010; Chen, Wang & Xie, 2011; Eggleston, Wilson, Lee & Gilbert, 2015; Packard & Berger, 2016). Alternatively, people might prefer reviews when explicit recommendations can threaten recipients' autonomy and spur reactance (Fitzsimons & Lehmann, 2004; Dalal & Bonaccio, 2010). However, in many natural cases, advice may not be readily available - often, it must be sought out. In these cases, recipients may need to balance their own preferences (over the type information sought) against their advisors' preferences (over the type of information provided). Their ability to understand and manage this tension can have important consequences for advice-seeking in natural environments. More broadly, this mismatch between advisor and recipient can have important effects on the efficiency of information markets, and we intend to explore these questions in future research.

Practical Applications

One potential critique of reviews in practice is that they are less accurate, because they do account for the recipients' tastes. Indeed, adjustment does usually increase predictive accuracy relative to pure reviews, though there are certainly exceptions (Dana & Cain, 2015). However, even when adjustment clearly improves predictions, it is by no means clear who should do the adjusting. Much of the literature assumes that the burden of adjustment will fall on the recommender, but of course the recipients are perfectly capable of adjusting themselves. Recommendations are not mandatory, and the literature on social influence has consistently shown that people put too little weight on advisors' opinions (Yaniv & Kleinberger, 2000;

Bonaccio & Dalal, 2006; Gilbert et al., 2009). So neither recommendations nor reviews are likely to be taken at face value. In that case, the informativeness of advice will depend on situational and interpersonal factors that affect recipients' willingness to heed their advisor. Furthermore, since recipients gain the most from adjustment, it may be reasonable for them to bear the cost of adjustment themselves.

More broadly, in many domains it may not matter whether recipients or recommenders are best at adjustment, because there is a rapidly emerging alternative - the collaborative filter. Technological advances have sprouted a proliferation of algorithms and databases, which can aggregate and adjust the reviews of many people and make tailored predictions at a massive scale (Resnick, Iacovou, Suchak, Bergstrom & Riedl, 1994; Breese, Heckerman & Kadie, 1998; Sarwar, Karypis, Kinston & Riedl, 2000). Furthermore, they are scalable - any one review in a dataset could contribute to predicting preferences of many others. In these domains the difference in prediction accuracy between reviewing and recommending is dwarfed by the accuracy advantage of recommender algorithms.

In domains where collaborative filtering is possible, it is critical to understand what drives people to share information, because the quality of the recommender system directly tied to the volume and diversity of consumer reviews in the dataset (Avery, Resnick & Zeckhauser, 1999). Incentivizing reviews is a important problem for many modern firms, and many resort to explicit - and costly - payments for reviewers (Wang, Ghose & Ipeirotis, 2012; Cabral & Li, 2015; Fradkin, Grewal, Holtz & Pearson, 2015). Alternatively, altering the choice architecture of the prompt itself can increase reviewing at zero marginal cost, and potentially better-quality reviews as well (Burtch, Hong, Bapna & Griskevicius, 2018).

The degree of adjustment is another element of the prompt that could be used to nudge users to leave more reviews. And yet leading online stores show wide variation in the amount of adjustment they prompt on their review pages. For example, Wal-Mart ignores adjustment altogether and simply asks, “how did [the product] work for you?”, while Amazon asks “who would you recommend this [product] to?” The research here suggests that this last question may be counter-productive, since reviewers might not enjoy having to take the perspective of people with different tastes. Furthermore, these instructions may bias reviews in aggregate, since perspective-taking is primarily desirable among consumers who prefer to accentuate their differences from others (Tian et al., 2001; Cheema & Kaikati, 2010; White & Argo, 2011). More realistically, most consumers will ignore this instruction and just give their own perspective instead.

Aggregating information from other people can have tremendous value, even at scales much smaller than a collaborative filter (Yaniv, 2004; Larrick & Soll, 2006). In situations where firms, organizations or individuals seek to gather information from other people, they will benefit if they are aware of the forces that affect how willing people are to share that information. Though there are no doubt many relevant factors, the research described here makes a simple prescription that can be applied in domains where tastes diverge. We suggest that, whenever possible, information seekers should ask for reviews, not recommendations.

REFERENCES

- Andreoni, J. (1990). Impure altruism and donations to public goods: a theory of warm-glow giving. *The Economic Journal*, 464-477.
- Angelis, M. D., Bonezzi, A., Peluso, A. M., Rucker, D. D., & Costabile, M. (2012). On braggarts and gossips: a self-enhancement account of word-of-mouth generation and transmission. *Journal of Marketing Research*, 49(4), 551-563.
- Avery, C., Resnick, P., & Zeckhauser, R. (1999). The market for evaluations. *American Economic Review*, 89(3), 564-584.
- Bearden, W. O., & Rose, R. L. (1990). Attention to social comparison information: An individual difference factor affecting consumer conformity. *Journal of Consumer Research*, 16(4), 461-471.
- Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology*, 24(4), 586-607.
- Blunden, H., Logg, J., Brooks, A.W., John, L. & Gino, F. (2018). Seeker Beware: The Relational Costs of Advice-Seeker Decisions. *Working Paper*.
- Bonaccio, S., & Dalal, R. S. (2006). Advice taking and decision-making: An integrative literature review, and implications for the organizational sciences. *Organizational Behavior and Human Decision Processes*, 101(2), 127-151.
- Breese, J. S., Heckerman, D., & Kadie, C. (1998). Empirical analysis of predictive algorithms for collaborative filtering. In *Proceedings of the Fourteenth conference on Uncertainty in artificial intelligence* (43-52). Morgan Kaufmann Publishers Inc..
- Brooks, A. W., Gino, F., & Schweitzer, M. E. (2015). Smart people ask for (my) advice: Seeking advice boosts perceptions of competence. *Management Science*, 61(6), 1421-1435.
- Brown, J. J., & Reingen, P. H. (1987). Social Ties and Word-of-Mouth Referral Behavior. *Journal of Consumer Research*, 14(3), 350-62.
- Burtch, G., Hong, Y., Bapna, R., & Griskevicius, V. (2018). Stimulating online reviews by combining financial incentives and social norms. *Management Science*. In press.
- Cabral L, Li L (2015) A dollar for your thoughts: Feedback conditional rebates on eBay. *Management Science*, 61(9), 2052–2063.
- Çelen, B., Kariv, S., & Schotter, A. (2010). An experimental test of advice and social learning. *Management Science*, 56(10), 1687-1701.

Cheema, A., & Kaikati, A. M. (2010). The effect of need for uniqueness on word of mouth. *Journal of Marketing Research*, 47(3), 553-563.

Chen, Y., Wang, Q., & Xie, J. (2011). Online social interactions: A natural experiment on word of mouth versus observational learning. *Journal of Marketing Research*, 48(2), 238-254.

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, 43(3), 345-354.

Chintagunta, P. K., Gopinath, S., & Venkataraman, S. (2010). The effects of online user reviews on movie box office performance: Accounting for sequential rollout and aggregation across local markets. *Marketing Science*, 29(5), 944-957.

Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: a meta-analytic review. *Psychological bulletin*, 116(3), 457.

Dalal, R. S., & Bonaccio, S. (2010). What types of advice do decision-makers prefer? *Organizational Behavior and Human Decision Processes*, 112(1), 11-23.

Dana, J., & Cain, D. M. (2015). Advice versus choice. *Current Opinion in Psychology*, 6, 173-176.

Danziger, S., Montal, R., & Barkan, R. (2012). Idealistic advice and pragmatic choice: A psychological distance account. *Journal of Personality and Social Psychology*, 102(6), 1105.

Davis, H. L., Hoch, S. J., & Ragsdale, E. K. (1986). An Anchoring and Adjustment Model of Spousal Predictions. *Journal of Consumer Research*, 13(1), 25-37.

Dawes, R. M. (1990). False Consensus Effect. *Insights in decision making: A tribute to Hillel J. Einhorn*, 179.

Duhan, D. F., Johnson, S. D., Wilcox, J. B., & Harrell, G. D. (1997). Influences on consumer use of word-of-mouth recommendation sources. *Journal of the Academy of Marketing Science*, 25(4), 283-295.

Dunbar, R. I., Marriott, A., & Duncan, N. D. (1997). Human conversational behavior. *Human Nature*, 8(3), 231-246.

Dunn, E. W., Aknin, L. B., & Norton, M. I. (2008). Spending money on others promotes happiness. *Science*, 319(5870), 1687-1688.

Eggleston, C. M., Wilson, T. D., Lee, M., & Gilbert, D. T. (2015). Predicting what we will like: Asking a stranger can be as good as asking a friend. *Organizational Behavior and Human Decision Processes*, 128, 1-10.

Ellsberg, D. (1961). Risk, ambiguity, and the Savage axioms. *The Quarterly Journal of Economics*, 643-669.

Epley, N., Keysar, B., Van Boven, L., & Gilovich, T. (2004). Perspective taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, 87(3), 327.

Epley, N. & Waytz, A. (2010). Mind perception. In Fiske, S. T., Gilbert, D. T., & Lindzey, G. (Eds.), *Handbook of Social Psychology* (5th ed.) (pp. 498-541). New York: John Wiley & Sons, Inc.

Fazio, R. H., Lenn, T. M., & Effrein, E. A. (1984). Spontaneous attitude formation. *Social Cognition*, 2(3), 217-234.

Feick, L. F., & Price, L. L. (1987). The market maven: A diffuser of marketplace information. *The Journal of Marketing*, 51, 83-97.

Feick, L., & Higie, R. A. (1992). The effects of preference heterogeneity and source characteristics on ad processing and judgements about endorsers. *Journal of Advertising*, 21(2), 9-24.

Fitzsimons, G. J., & Lehmann, D. R. (2004). Reactance to recommendations: When unsolicited advice yields contrary responses. *Marketing Science*, 23(1), 82-94.

Fradkin A, Grewal E, Holtz D, Pearson M (2015) Bias and reciprocity in online reviews: Evidence from field experiments on Airbnb. *Proc. Sixteenth ACM Conf. on Econom. and Comput. (ACM, New York)*, 641–641.

Gilbert, D. T., Killingsworth, M. A., Eyre, R. N., & Wilson, T. D. (2009). The surprising power of neighborly advice. *Science*, 323(5921), 1617-1619.

Gino, F., Shang, J., & Croson, R. (2009). The impact of information from similar or different advisors on judgment. *Organizational Behavior and Human Decision Processes*, 108(2), 287-302.

Godes, D., Mayzlin, D., Chen, Y., Das, S., Dellarocas, C., Pfeiffer, B., ... & Verlegh, P. (2005). The firm's management of social interactions. *Marketing Letters*, 16(3-4), 415-428.

Goel, S., Mason, W., & Watts, D. J. (2010). Real and perceived attitude agreement in social networks. *Journal of Personality and Social Psychology*, 99(4), 611.

- Goldberg, K., Roeder, T., Gupta, D., & Perkins, C. (2001). Eigentaste: A constant time collaborative filtering algorithm. *Information Retrieval*, 4(2), 133-151.
- Goldsmith, D. J., & Fitch, K. (1997). The normative context of advice as social support. *Human communication research*, 23(4), 454-476.
- Guerin, B., & Innes, J. M. (1989). Cognitive tuning sets: Anticipating the consequences of communication. *Current Psychology*, 8(3), 234-249.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *Journal of Interactive Marketing*, 18(1), 38-52.
- Hoch, S. J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology*, 53(2), 221.
- Hsee, C. K., & Weber, E. U. (1997). A fundamental prediction error: Self-others discrepancies in risk preference. *Journal of Experimental Psychology: General*, 126(1), 45.
- Kray, L., & Gonzalez, R. (1999). Differential weighting in choice versus advice: I'll do this, you do that. *Journal of Behavioral Decision Making*, 12(3), 207-218.
- Kray, L. J. (2000). Contingent weighting in self-other decision making. *Organizational Behavior and Human Decision Processes*, 83(1), 82-106.
- Krueger, J., & Clement, R. W. (1994). The truly false consensus effect: an ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology*, 67(4), 596.
- Laran, J. (2010). Goal management in sequential choices: Consumer choices for others are more indulgent than personal choices. *Journal of Consumer Research*, 37(2), 304-314.
- Larrick, R. P., & Soll, J. B. (2006). Intuitions about combining opinions: Misappreciation of the averaging principle. *Management Science*, 52(1), 111-127.
- Lascu, D. N., & Zinkhan, G. (1999). Consumer conformity: review and applications for marketing theory and practice. *Journal of Marketing Theory and Practice*, 7(3), 1-12.
- Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. *Psychological Bulletin*, 125(2), 255.

- Lerouge, D., & Warlop, L. (2006). Why it is so hard to predict our partner's product preferences: The effect of target familiarity on prediction accuracy. *Journal of Consumer Research*, 33(3), 393-402.
- Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116(1), 75.
- Marks, G., & Miller, N. (1987). Ten years of research on the false-consensus effect: An empirical and theoretical review. *Psychological Bulletin*, 102(1), 72-90.
- Murray, S. L., Holmes, J. G., Bellavia, G., Griffin, D. W., & Dolderman, D. (2002). Kindred spirits? The benefits of egocentrism in close relationships. *Journal of Personality and Social Psychology*, 82(4), 563-581.
- Naylor, R. W., Lamberton, C. P., & Norton, D. A. (2011). Seeing ourselves in others: Reviewer ambiguity, egocentric anchoring, and persuasion. *Journal of Marketing Research*, 48(3), 617-631.
- Olivola, C. Y., & Shafir, E. (2013). The Martyrdom Effect: When pain and effort increase prosocial contributions. *Journal of Behavioral Decision Making*, 26(1), 91-105.
- Packard, G., & Wooten, D. B. (2013). Compensatory knowledge signaling in consumer word-of-mouth. *Journal of Consumer Psychology*, 23(4), 434-450.
- Peters, K., & Kashima, Y. (2007). From social talk to social action: shaping the social triad with emotion sharing. *Journal of Personality and Social Psychology*, 93(5), 780.
- Polman, E. (2010). Information distortion in self-other decision making. *Journal of Experimental Social Psychology*, 46(2), 432-435.
- Polman, E. (2012). Effects of self-other decision making on regulatory focus and choice overload. *Journal of Personality and Social Psychology*, 102(5), 980.
- Resnick, P., Iacovou, N., Suchak, M., Bergstrom, P., & Riedl, J. (1994, October). GroupLens: an open architecture for collaborative filtering of netnews. In *Proceedings of the 1994 ACM conference on Computer supported cooperative work* (pp. 175-186). ACM.
- Ross, L., Greene, D., & House, P. (1977). The "false consensus effect": An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13(3), 279-301.
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1-36.

Rozenkrants, B.S., Wheeler, C. & Shiv, B. (2017). Self-Expression Cues in Product Rating Distributions: When People Prefer Polarizing Products. *Journal of Consumer Research*, 44(4), 759–777.

Ruvio, A., Shoham, A., & Makovec Brenčič, M. (2008). Consumers' need for uniqueness: short-form scale development and cross-cultural validation. *International Marketing Review*, 25(1), 33-53.

Sarwar, B., Karypis, G., Konstan, J., & Riedl, J. (2000, October). Analysis of recommendation algorithms for e-commerce. In *Proceedings of the 2nd ACM conference on Electronic commerce* (pp. 158-167). ACM.

Sharma, A., & Cosley, D. (2015). Studying and Modeling the Connection between People's Preferences and Content Sharing. In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*, 1246-1257.

Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, 89(6), 845.

Spiller, S. A., & Belogolova, L. (2017). On Consumer Beliefs about Quality and Taste. *Journal of Consumer Research*, 43(6), 970-991.

Sprecher, S., Treger, S., Wondra, J. D., Hilaire, N., & Wallpe, K. (2013). Taking turns: Reciprocal self-disclosure promotes liking in initial interactions. *Journal of Experimental Social Psychology*, 49(5), 860-866.

Strack, F., Schwarz, N., & Gschneidinger, E. (1985). Happiness and reminiscing: The role of time perspective, affect, and mode of thinking. *Journal of Personality and Social Psychology*, 49(6), 1460.

Suls, J., Martin, R., & Wheeler, L. (2002). Social comparison: Why, with whom, and with what effect? *Current directions in psychological science*, 11(5), 159-163.

Sundaram, D. S., Mitra, K., & Webster, C. (1998). Word-of-mouth communications: A motivational analysis. *Advances in Consumer Research*, 25(1), 527-531.

Tamir, D. I., & Mitchell, J. P. (2012). Disclosing information about the self is intrinsically rewarding. *Proceedings of the National Academy of Sciences*, 109(21), 8038-8043.

Tamir, D. I., & Mitchell, J. P. (2013). Anchoring and adjustment during social inferences. *Journal of Experimental Psychology: General*, 142(1), 151.

Tamir, D.I., Zaki, J. & Mitchell, J.P. (2015). Informing others is associated with behavioral and neural signatures of value. *Journal of Experimental Psychology: General*, 144(6), 1114-1123.

Tesser, A., & Rosen, S. (1975). The reluctance to transmit bad news. *Advances in Experimental Social Psychology*, 8, 193-232.

Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' need for uniqueness: Scale development and validation. *Journal of Consumer Research*, 28(1), 50-66.

Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site. *Journal of Marketing*, 73(5), 90-102.

Wang, Z. (2010). Anonymity, social image, and the competition for volunteers: a case study of the online market for reviews. *The BE Journal of Economic Analysis & Policy*, 10(1).

Wang, J., Ghose, A., & Ipeirotis, P. G. (2012). Bonus, Disclosure, and Choice: What Motivates the Creation of High-Quality Paid Reviews?. In *Proceedings of Thirty Third International Conference on Information Systems*.

West, P. M. (1996). Predicting preferences: An examination of agent learning. *Journal of Consumer Research*, 23(1), 68-80.

White, K., & Argo, J. J. (2011). When imitation doesn't flatter: The role of consumer distinctiveness in responses to mimicry. *Journal of Consumer Research*, 38(4), 667-680.

Wojnicki, A. C., & Godes, D. (2008). Word-of-mouth as self-enhancement. *HBS marketing research paper*, (06-01).

Woodside, A. G., & Davenport, J. W. (1974). The effect of salesman similarity and expertise on consumer purchasing behavior. *Journal of Marketing Research*, 11, 198-202.

Yaniv, I., & Kleinberger, E. (2000). Advice taking in decision making: Egocentric discounting and reputation formation. *Organizational Behavior and Human Decision Processes*, 83(2), 260-281.

Yaniv, I. (2004). The benefit of additional opinions. *Current Directions in Psychological Science*, 13(2), 75-78.

Yaniv, I., Choshen-Hillel, S., & Milyavsky, M. (2011). Receiving advice on matters of taste: Similarity, majority influence, and taste discrimination. *Organizational Behavior and Human Decision Processes*, 115(1), 111-120

Zajonc, R. B. (1960). The process of cognitive tuning in communication. *The Journal of Abnormal and Social Psychology*, 61(2), 159.

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American psychologist*, 35(2), 151.

Figure Captions

Figure 1:

Enjoyment ratings of the tasks assigned to participants in Study 1. Participants enjoyed reviewing their own favorite movie clip, rather than recommending a movie clip to someone else. Error bars represent 95% confidence intervals around the group means.

Figure 2:

Ratings of task enjoyment from Study 2B. Participants were asked to recommend a restaurant, or to review their favorite, or to describe their favorite to an attentive recipient. Error bars represent 95% confidence intervals around the group means.

Figure 3:

The relationship between similarity and task enjoyment, among recommenders who saw a sample of jokes in Study 3. Among recommenders who had samples, an OLS linear regression of enjoyment onto recipient similarity is plotted, along with the group mean for blind recommenders and surrogates. Error bars represent 95% confidence intervals around the group means, and regression bands represent 95% confidence intervals around the regression fit.

Figure 4:

Spotlight analysis of the regression model in Study 4. Error bars represent 95% confidence intervals around the fitted regression in each condition, predicting enjoyment at one standard deviation above and below the mean of consumer need for uniqueness.

Table Captions

Table 1:

The relationship between trait-level consumer motivations and task enjoyment in Study 4. Each column represents an OLS regression, predicting either the difference in enjoyment between recommending and reviewing, or the average enjoyment of recommending and reviewing. All measures are standardized, and each cell reports an estimated regression coefficient (standard error in parentheses).

FIGURE 1

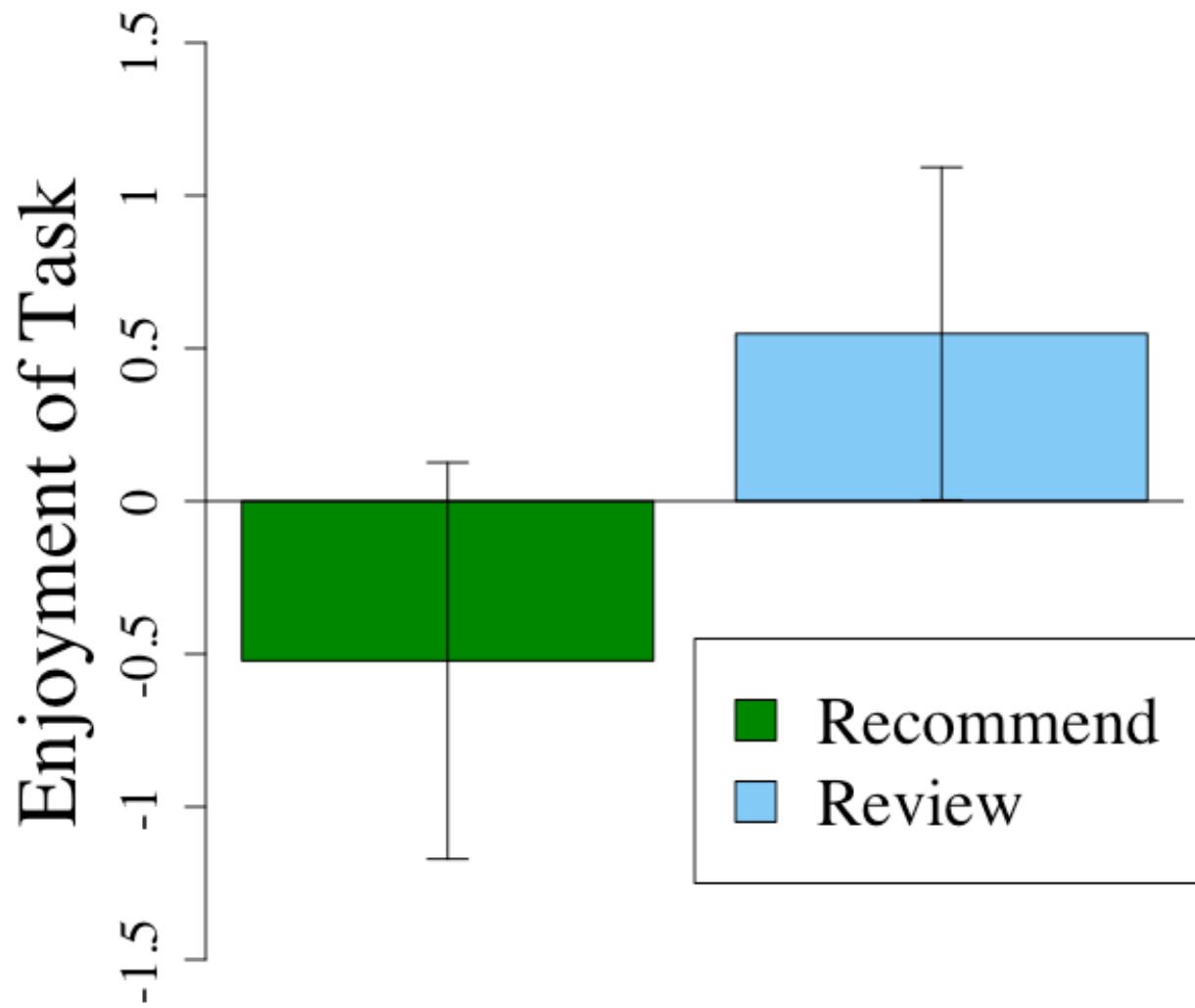


FIGURE 2

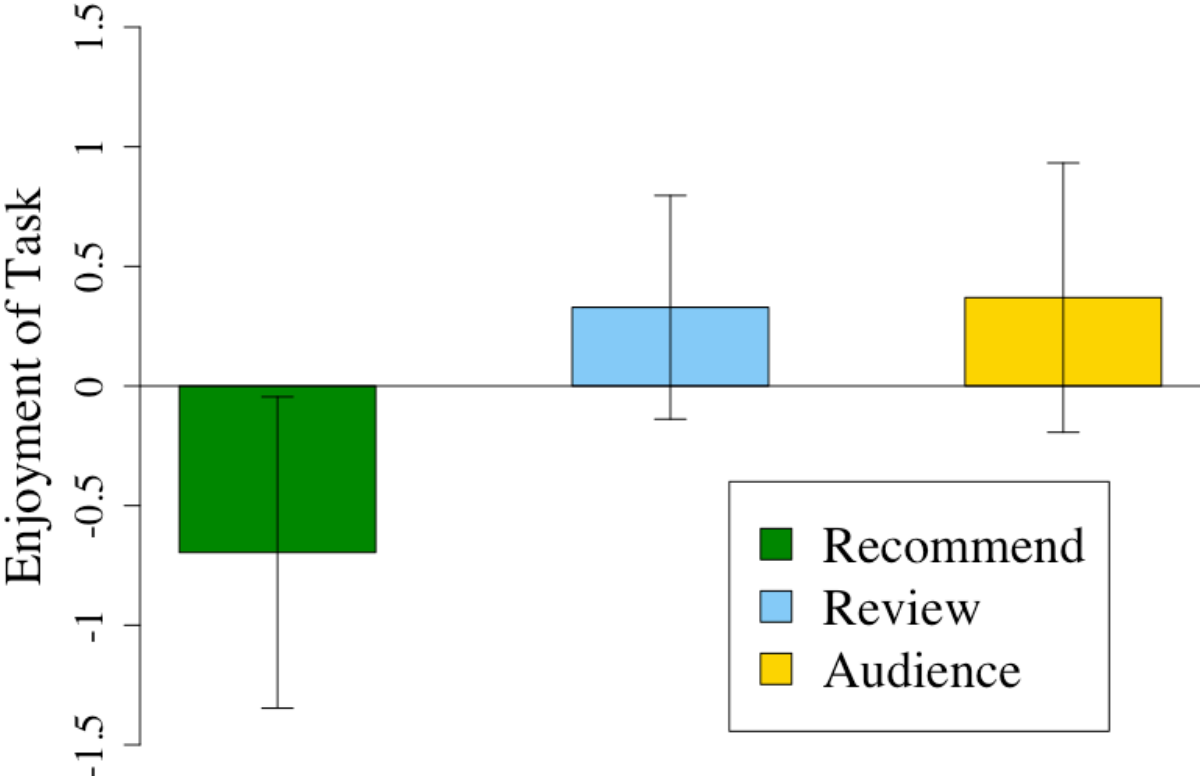


FIGURE 3

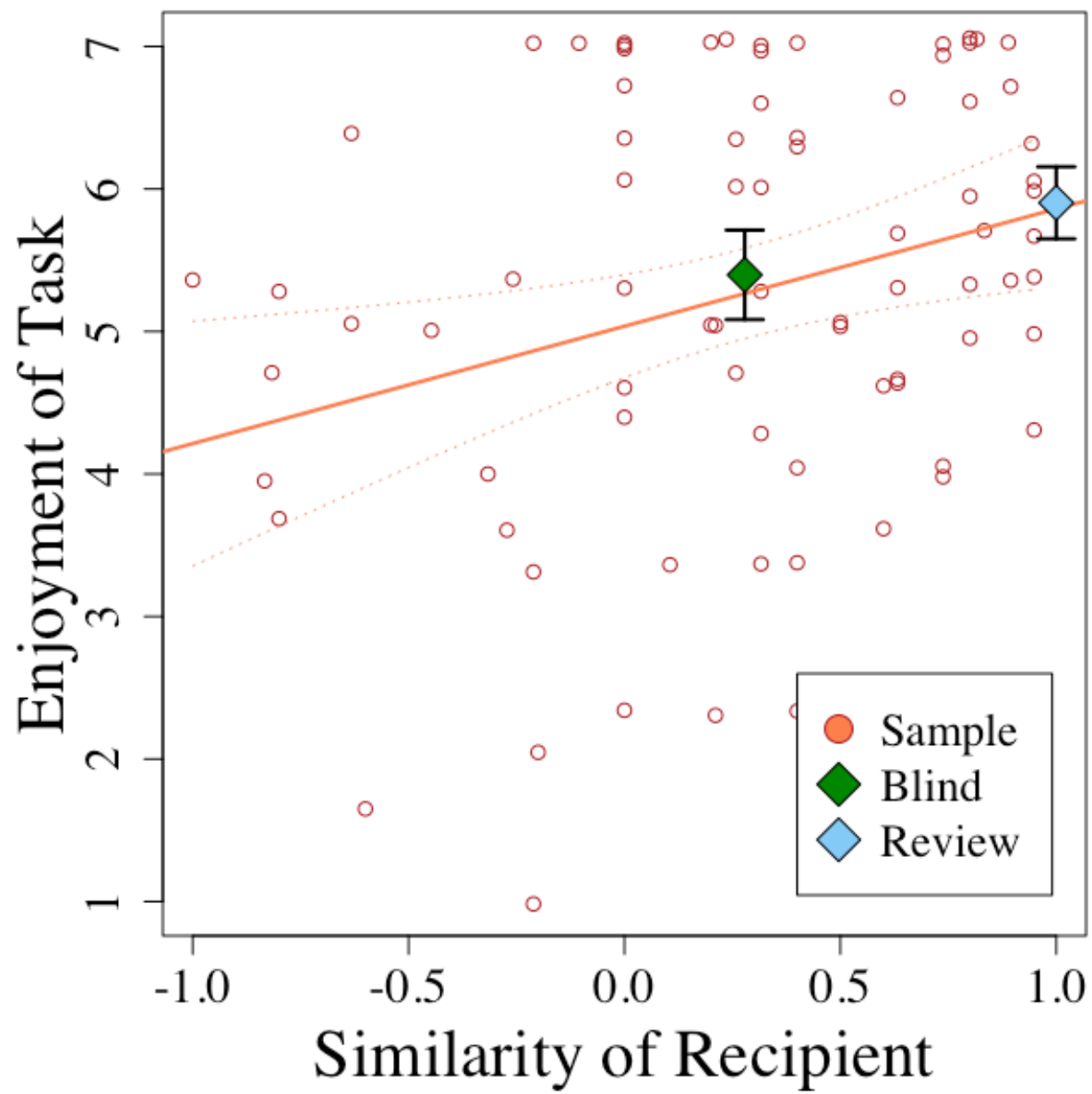


FIGURE 4

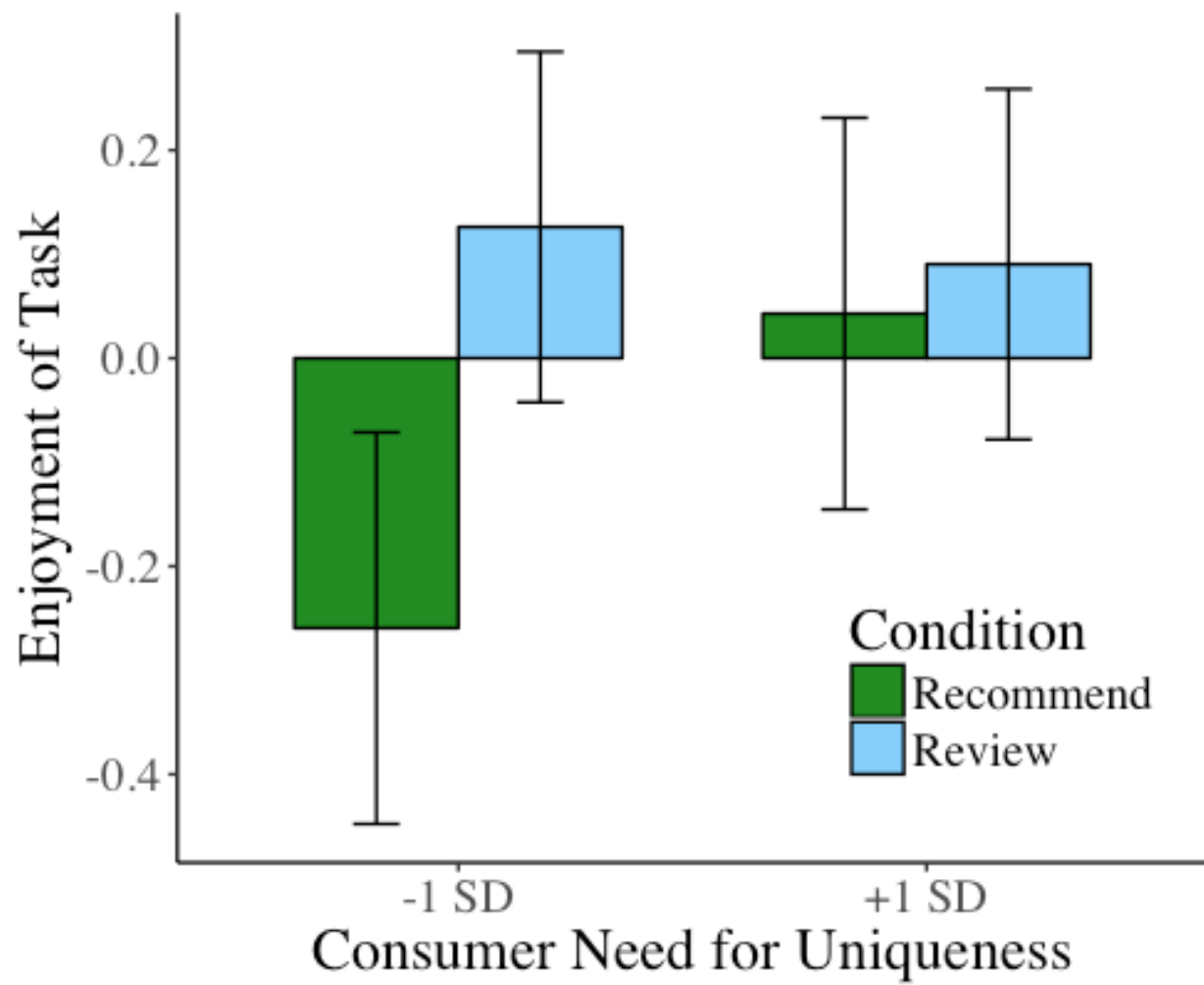


TABLE 1

	Difference Between Conditions <i>(Recommend - Review)</i>			Average Across Conditions <i>(Recommend + Review)</i>		
Mavenism	.150 [^] (.076)		.081 (.079)	.757*** (.180)		.842*** (.190)
Uniqueness		.273*** (.076)	.248*** (.080)		.215 (.193)	-.062 (.192)
Mavenism x Uniqueness			.015 (.112)			.633* (.269)
[^] = p<.1; * = p<.05; ** = p<.01; *** = p<.005						

APPENDIX A

This is the text of the attention check used in all studies collected from an online sample. Note that participants who failed to follow instructions were not allowed to complete the survey, and replacement participants were recruited in their place.

First, tell us about yourself!

To help us understand how people think about different activities, please answer this question correctly. Specifically, we are interested in whether you actually take the time to read the directions; if not, the results would not be very useful. To show that you have read the instructions, please ignore the items below about activities and instead type 'I will pay attention' in the space next to 'Other'. Thank you.

- ☐ Watching Athletics
- ☐ Attending Cultural Events
- ☐ Participating in Athletics
- ☐ Reading Outside of Work or School
- ☐ Watching Movies
- ☐ Travel
- ☐ Religious Activities
- ☐ Needlework
- ☐ Cooking
- ☐ Gardening
- ☐ Computer Games
- ☐ Hiking
- ☐ Board or Card Games
- ☐ Other: _____

APPENDIX B

Here we report an experiment in which participants were recruited to be recipients for the recommendations and reviews that were written by participants in Study 1.

Methods

We again recruited visitors in the same museum, on a later day, for a movie watching survey. All of them were told that they would choose a movie to watch, and then answer some questions about it for the survey. However, the only information they had for their choice was the (non-informative) titles of the four movies, and a single recommendation from someone who had seen clips of all four movies. In truth, this “recommendation” was randomly drawn from the full set of reviews and recommendations from the first half of the study. After choosing their movie and watching it, participants answered the following questions, each on a 1-7 scale ranging from “not at all” to “very much”:

How much did you enjoy the movie you just watched?

How helpful did you find the recommendation you received?

Overall, how much did you enjoy participating in this study?

Overall, how much did you enjoy your visit to the museum today?

Results

In the second half of the study, we recruited 130 participants, but eight could not finish, so that left 122 in the sample for analysis (48% female; average age=36.9). Each one was randomly assigned to receive a different text from the full set of recommendations and reviews

collected in the first half of the study (due to imperfect implementation, 12 of the texts were shown to two different recipients, and we include them here, though the results are identical if we exclude them). Their responses indicate that there were no significant differences between the two conditions, and if there is any trend at all, it is that the recipients found the recommendations less helpful ($M=2.75$, $SD=1.64$) than the reviews ($M=2.85$, $SD=1.82$, *n.s.*), and recipients who read reviews were slightly more likely to enjoy the movie they chose ($M=4.31$, $SD=1.58$), the study itself ($M=4.89$, $SD=1.65$), and the museum ($M=6.15$, $SD=1.31$) than recipients who read recommendations (movie: $M=3.97$, $SD=1.86$; study: $M=4.48$, $SD=1.65$; museum: $M=6.07$, $SD=1.40$; all differences *n.s.*)

APPENDIX C

List of jokes used as stimuli in Study 3. From Goldberg and colleagues (2001).

SAMPLE JOKES

Q: Did you hear about the dyslexic devil worshipper? A: He sold his soul to Santa.

A guy goes into confession and says to the priest, "Father, I'm 80 years old, widower, with 11 grandchildren. Last night I met two beautiful flight attendants. They took me home and I made love to both of them. Twice." The priest says, "Well, my son, when was the last time you were in confession?" "Never Father, I'm Jewish." "So then, why are you telling me?" "I'm telling everybody!"

A group of managers were given the assignment to measure the height of a flagpole. So they go out to the flagpole with ladders and tape measures, and they're falling off the ladders, dropping the tape measures--the whole thing is just a mess. An engineer comes along and sees what they're trying to do, walks over, pulls the flagpole out of the ground, lays it flat, measures it from end to end, gives the measurement to one of the managers and walks away. After the engineer has gone, one manager turns to another and laughs. "Isn't that just like an engineer? We're looking for the height and he gives us the length."

A couple of hunters are out in the woods in the deep south when one of them falls to the ground. He doesn't seem to be breathing, and his eyes are rolled back in his head. The other guy whips out his cell phone and calls 911. He gasps to the operator, "My friend is dead! What can I do?" The operator, in a calm and soothing voice, says, "Alright, take it easy. I can help. First, let's make sure he's dead." There is silence, and then a gun shot is heard. The hunter comes back on the line. "Okay. Now what??"

MENU JOKES

An explorer in the deepest Amazon suddenly finds himself surrounded by a bloodthirsty group of natives. Upon surveying the situation, he says quietly to himself, "Oh God, I'm screwed." The sky darkens and a voice booms out, "No, you are NOT screwed. Pick up that stone at your feet and bash in the head of the chief standing in front of you." So with the stone he bashes the life out of

the chief. He stands above the lifeless body, breathing heavily and looking at 100 angry natives...The voice booms out again, "Okay....NOW you're screwed."

How many feminists does it take to screw in a light bulb? That's not funny.

Q: If a person who speaks three languages is called "trilingual," and a person who speaks two languages is called "bilingual," what do you call a person who only speaks one language? A: American!

There once was a man and a woman that both got in a terrible car wreck. Both of their vehicles were completely destroyed, but fortunately, no one was hurt. In thankfulness, the woman said to the man, "We are both okay, so we should celebrate. I have a bottle of wine in my car: let's open it." So the woman got the bottle out of the car, and handed it to the man. The man took a really big drink, and handed the woman the bottle. The woman closed the bottle and put it down. The man asked, "Aren't you going to take a drink?" The woman cleverly replied, "No, I think I'll just wait for the cops to get here."

Mickey Mouse is having a nasty divorce with Minnie Mouse. Mickey spoke to the judge about the separation. "I'm sorry Mickey, but I can't legally separate you two on the grounds that Minnie is mentally insane..." Mickey replied, "I didn't say she was mentally insane, I said that she's fucking Goofy!"

As a pre-med student, I had to take a difficult class in physics. One day our professor was discussing a particularly complicated concept. A student rudely interrupted to ask, "Why do we have to learn this stuff?" "To save lives." The professor responded quickly and continued the lecture. A few minutes later, the same student spoke up again. "So how does physics save lives?" he persisted. "It usually keeps the idiots like you out of medical school," replied the professor.

APPENDIX D

Individual difference scales included in Study 4. All participants filled out both scales (order counterbalanced), and the items within each scale were also presented in a random order.

Consumer Need For Uniqueness - Short (Ruvio, Shoham & Makovec Brenčič, 2008)

Please indicate your agreement with each of the statements below, on a scale from 1 (strongly disagree) to 7 (strongly agree).

1. I often combine possessions in such a way that I create a personal image that cannot be duplicated.
2. I often try to find a more interesting version of run-of-the-mill products because I enjoy being original.
3. I actively seek to develop my personal uniqueness by buying special products or brands.
4. Having an eye for products that are interesting and unusual assists me in establishing a distinctive image.
5. When it comes to the products I buy and the situations in which I use them, I have broken customs and rules.
6. I have often violated the understood rules of my social group regarding what to buy or own.
7. I have often gone against the understood rules of my social group regarding when and how certain products are properly used.
8. I enjoy challenging the prevailing taste of people I know by buying something they would not seem to accept
9. When a product I own becomes popular among the general population, I begin to use it less.
10. I often try to avoid products or brands that I know are bought by the general population.
11. As a rule, I dislike products or brands that are customarily bought by everyone.
12. The more commonplace a product or brand is among the general population, the less interested I am in buying it.
13. I have decorative walls in my house like brick stones, plaster walls, etc.
14. I have a wet bar in my kitchen.
15. I have a tattoo on my body.
16. I own a pure-bred cat, or dog, or horse.
17. I own a unique collection (knives, stamps, coins, etc.)

Market Maven Scale (Feick & Price, 1987)

Please indicate your agreement with each of the statements below, on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. I like introducing new brands and products to my friends.
2. I like helping people by providing them with information about many kinds of products.
3. People ask me for information about products, places to shop, or sales.
3. If someone asked where to get the best buy on several types of products, I could tell him or here where to shop.
5. My friends think of me as a good source of information when it comes to new products or sales.
6. Think about a person who has information about a variety of products and likes to share this information with others. This person knows about new products, sales, stores, and so on, but does not necessarily feel he or she is an expert on one particular product. How well would you say that this description fits you?

APPENDIX E

Text from the choice screen in Study 5. Note that the order of options (1) and (2) was counterbalanced across participants, but option (3) was always last.

In the main part of the task, we want to ask you to write your opinions on a food-related topic. However, there are three different tasks you can choose between. We made sure that **all of the tasks take the same amount of time and effort**, so you should choose based on which task you would prefer to complete.

Here are short descriptions of the three tasks:

- (1) **Recommend a restaurant to another person**, if they were visiting your hometown tonight - the town from an earlier question - and going out for dinner.
- (2) **Describe the restaurant you would choose for yourself**, if you were in your hometown tonight - the town from an earlier question - and going out for dinner.
- (3) **Write a response to a news article about food**. The title of the news article is:
"Drought-Friendly Recipes Kick up the Flavor - And cut back on the water"

Please tell us which of these three tasks you would rather do in this survey.

- ☐ Recommend a restaurant to another person
- ☐ Choose a restaurant for myself
- ☐ Write a response to an article about food